SADDLEBACK MEADOWS

ADDENDUM PA980103

CERTIFIED FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

STATE CLEARINGHOUSE NO. 96121072

ZONE CHANGE 98-3 and AREA PLAN 98-2
299 SINGLE-FAMILY-UNIT PROJECT

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I. INTRODUCTION

This Addendum to certified subsequent EIR (SEIR 566) has been prepared to evaluate the environmental effects associated with a contingency plan for 299 single-family dwelling units, as proposed by the applicant for the 222.2-acre Saddleback Meadows project site. This revised project has been developed by the applicant, based upon direction given at the December 3, 1997 Orange County Planning Commission public hearing and identified comments during the public review period and is referred to as the proposed project within this addendum. The Area Plan and Site Development Permit application had been submitted to implement the direction given to County Staff by the Board of Supervisors per their motion of June 2, 1998 (Agenda item #S86A) which directs County Staff to immediately begin processing General Plan Amendment, Specific Plan Amendment, Zone Change, Area Plan, Tentative Tract Map applications and any other required plan/application for the 299-Lot Development Plan, in accordance with the conceptual terms of a settlement agreement regarding the potential purchase of the Saddleback Meadows property as described at the June 2, 1998 Board of Supervisors hearing. This Addendum evaluates the environmental effects associated with this project and is based on Final SEIR 566, which was certified by the Planning Commission on December 3, 1997 and affirmed by the Orange County Board of Supervisors on January 27, 1998.

The currently proposed contingency plan for 299 residential units was examined previously for this site in the form of alternatives, contained in Final EIR 561 and Certified Final EIR 566, although with slightly differing site plans. The alternatives contained in the appendix of this document are Alternatives 4, 8 and 9 which were previously evaluated. The contingency plan results from an extended evaluation by the applicant to address environmental concerns previously analyzed by reconfiguring the proposed project density, land use and location.

The Addendum is based on certified SEIR (EIR 566) which was prepared to evaluate 705 manufactured homes (referred herein as the "approved project") and evaluates the currently proposed 299 unit project, which includes strategically designed landform grading and landscaping to screen and filter views of the proposed development area from surrounding land uses. This has been accomplished by shortening cul-de-sac street lengths and eliminating residential lots in order to allow space for landform berming and contour grading, designed to substantially reduce views of the development area from both Saint Michael's Abbey and the Ramakrishna Monastery. In addition, the majority of the development area is now located south of the primary on-site spine road, creating a single loaded collector street through the majority of the project site. The proposed project represents a substantial reduction in density and associated environmental effects, in comparison to the 705-unit previously approved project evaluated in certified SEIR 566.

The following design features have been incorporated into the proposed contingency plan for 299 single-family dwelling units:

- 299 single-family lots with conventional housing.
- Contour grading that emphasizes and extends existing landforms working in concert with landscaping to screen and filter views of the development.
- Berming at selected locations to blend with natural terrain features while providing screening and buffering views into the project site from The Ramakrishna Monastery, St. Michael's Abbey and the Hidden Ridge community.
- Site planning techniques that minimize rows of backyards along highly visible edges, incorporating slopes, landscape zones, and landforms between homes and surrounding land uses.
- Community-wide landscaping that provides visual enhancement through perimeter and interior plantings, providing filtered views of the proposed development area from the surrounding areas.

The scope of this Initial Study will be to analyze the contingency plan in comparison with the previously approved project. Final SEIR 566 was certified as final and adequate on January 27, 1998.

The CEQA Guidelines (Cal. Code of Regulations §15000 et seq.) authorize the use of an Addendum for the purpose of determining whether a previously prepared EIR can be used for a project (CEQA Guidelines §15063(c)(7)). This document will analyze each topical area for disclosure of any new or more severe impacts based on the proposed project, not previously anticipated.

Section 21166 of the California Environmental Quality Act (CEQA, Pub. Res. Code §21000, et seq.) sets the standard to determine whether another EIR should be prepared when a previous EIR has been prepared. Section 21166 states:

> "When an environmental impact report has been prepared for a project pursuant to this division, no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency, unless one or more of the following events occurs:
>
> (a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report.
>
> (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report.
>
> (c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available."

Section 21166 is further explained in the CEQA Guidelines at §15162, in the following language;

"(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation Measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation Measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subsection (a). otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

(c) If the project was approved prior to the occurrence of the conditions described in the subsection (a), a subsequent EIR or negative declaration shall be prepared by the public agency which grants the next discretionary approval for the project. In this situation no other Responsible Agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

(d) A subsequent EIR or negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A Subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed."

The key to sections 21166 and 15162 is to determine if any circumstances have changed dramatically enough to justify repeating a substantial portion of the environmental documentation process. If conditions do not justify a new or supplemental EIR, but minor additional or technical changes (such as traffic updates) are appropriate to keep the document current and useful, an agency may prepare an Addendum (CEQA Guidelines §15164).

Based upon the foregoing information, it was determined that preparation of an Addendum is the appropriate CEQA document to provide project specific analysis and to provide clarification and minor changes to Final SEIR 566. This document is prepared under the authority of §15164 of the California Environmental Quality Act (CEQA) since only minor technical changes or additions are necessary to make previously certified Final SEIR 566 adequate under CEQA.

Additionally, this Addendum does not raise important new issues about the significant effects on the environment. There is no substantial evidence that the project, as mitigated by the mitigation measures required within the Final SEIR 566 would have a significant adverse effect on the environment (§15070).

Finally, Final SEIR 566 was certified for the development of the previously proposed project in connection with earlier approvals. The certification of an EIR is a recognition of the continuing utility of the document for subsequent development approval within the scope of the original approval.

The §21166 test provides evidence under state law on the question of whether a new environmental document is necessary. This test is a tangible one, and does not challenge the age of a document, only provides the criteria to test its continuing accuracy and utility.

II. PROJECT DESCRIPTION

1. Location

The project site is situated on 222.2 acres of vacant land located on the easterly side of El Toro Road, approximately ½-mile south of the intersection of Santiago Canyon Road/El Toro Road and Live Oak Canyon Road, in east-central unincorporated Orange County. The incorporated cities of Mission Viejo and Lake Forest lie approximately three (3) miles to the south and southwest, with the Cleveland National Forest boundary located approximately ½-mile north of the project site. Aliso Creek is located adjacent to the northwest portion of the project site. in addition, a small strip of County owned land is located between the project site and El Toro Road (Please refer to Exhibit 1, Regional Location Map and Exhibit 2, Vicinity Map).

2. Background

The following chronology identifies key dates in the projects' history.

SADDLEBACK MEADOWS PROJECT CHRONOLOGY

DATE	PROJECT RELATED EVENT
August 8, 1978	- The Orange County Board of Supervisors adopted GPA 78-1, Item 4, the "Saddleback Meadows Mobile Home Subdivision" which granted a change in the Land Use Element designation for the site from 5.4 Other Open Space to 1.22 Medium Low Density Residential and 2.1 Local Commercial. Maximum number set at 617 dwelling units. Triggering mechanism to revert land use designation to original after 2 years commenced. EIR 059 certified.
February 6, 1979	- Board adopted Site Plan conditions as requirements for implementing the subject amendment. Draft EIR 059, which was the CEQA documentation for the site plan, identified major grading impacts as project related impacts; these impacts were also shown on grading plans for Tentative Tract Map TT10692, prepared for the project.
March 7, 1979	- Zone change application, Tentative Tract Map and Addendum requests submitted to County for a maximum of 617 mobile home units and a neighborhood convenience commercial center on the project site.
March 29, 1979	- Determination of requirement for an EIR transmitted to applicant by Environmental Services Division (ESD).
June 5, 1979	- Appeal of EIR requirement by Cliff Russell, representing Worthington/McNiff.

June 11, 1979 - The Orange County Planning Commission denied the appeal. Supplemental EIR required for proposed 617 unit tentative tract map.

June 25, 1979 - Zone Change 79-24 submitted to County. The project proposed at the time consisted of 617 units.

December 13, 1979 - TT10692 approved by the Planning Commission with recommendation that Zone Change ZC79-24 be approved by Board of Supervisors for 705-unit residential.

January 9, 1980 - Saddleback Meadows properties placed in the PC "Planned Community" District and adopted by Board of Supervisors, Ordinance Number 3177. Final EIR 203 certified.

October 28, 1981 - Two year extension of time to record to expire December 12, 1983 approved by the Subdivision Committee.

December 7, 1981 - Appeal to deny two year extension of time affirmed by Planning Commission. One year extension of time to record to expire December 12, 1982 granted by Planning Commission.

November 17, 1982 - An additional one year extension of time to record to expire December 12, 1983 approved by Subdivision Committee.

July 13, 1983 - Saddleback Meadows Planned Community District Regulations amended by Planning Commission and adopted by Board of Supervisors, Ordinance Number 3398 (ZC82-63P).

October 26, 1983 - Third one year extension of time to record approved.

June 13, 1984 - Saddleback Meadows Planned Community District Regulations amended by Planning Commission and adopted by Board of Supervisors, Ordinance 3486 (ZC84-3P) to allow manufactured housing in PC.

October 24, 1984 - 589-day stay of time in which to record a final tract map approved by Subdivision Committee. Expiration date extended to July 24, 1986.

July 24, 1986 - Water district could not provide sewer service; recordation not allowed until sewer capacity available.

September 21, 1988 - Execution between Southmark and the Trabuco Canyon Water District of "Agreement for Designing Construction of Master Plan Facilities, Tract No. 10692";

September 21, 1988 - Execution between Southmark and the Trabuco Canyon Water District as a document entitled "Agreement for Construction of On-site Water and Sewer Facilities, Tract No. 10692";

December 16, 1988 - Tract Map 10692 recorded.

February, 1989	-	Payment of $973,528.58, purchase of sewer treatment capacity rights in Trabuco Canyon Water District's Chiquita Wastewater System Facilities by predecessor to Applicant;
1989	-	Payment by predecessor to applicant to the Trabuco Canyon Water District in the amount of $904,475.00 for capital improvement charges based on the Equivalent Density Units of Recorded Tract No. 10692;
December 10, 1991	-	Foothill/Trabuco Specific Plan approved and Final EIR 531 certified by Orange County Board of Supervisors. The Specific Plan incorporated the Saddleback Meadows Planned Community Regulations as the Bridlewood Residential District.
April, 1994	-	Grading Permit Application GA940031 submitted for Phase I, Grading (98.3 acres) of the site.
August, 1994	-	Environmental Impact Report Determination Letter issued by County.
August 11, 1994	-	Letter of Appeal filed with County, appealing EIR requirement.
November, 1994	-	Appeal Hearing postponed to January 7, 1995.
January 31, 1995	-	Applicant withdraws appeal. Planning Commission directs applicant to develop a more compatible project in response to public testimony, staff concerns, and Planning Commission's direction.
July 27, 1995	-	Revised Zone Change and Area Plan, 318-unit Site Development Plan and Tentative Tract Map submitted to County of Orange.
August 11, 1995	-	Notice of Preparation circulated for EIR 561
October 17, 1995	-	Screencheck Draft EIR 561 submitted to OCPDS for review.
July 30, 1996	-	After five public Planning Commission hearings, the Planning Commission was unable to reach a decision and make a recommendation to the Board of Supervisors. The Commissioners voted four times on varying lot yields ranging from 318 down to 260 units. However, a majority of the commissioners were in agreement on the general development envelope as depicted by Staff recommended Alternative 8 for 299 units. The Commission did, however, recommend certification of the EIR document. The Planning Commission recommended moving the project along to the Board of Supervisors for its consideration.
August 2, 1996	-	The applicant appeals Planning Commission action of July 30, 1996 because the Commission's inaction on making recommendation to the Board of Supervisors on the substantive issues of the Zone Change and Area Plan was procedurally a de-facto project denial.

September 10, 1996	-	Applicant submits Alternative 9 (318 lots) to County staff and requests that the alternative be considered by the Board of Supervisors as a plan which better addresses the concerns and issues raised by the public and the Planning Commission at the last public hearing.
October 2, 1996	-	Saddleback Valley Unified School District Board approves Mitigation Agreement for Saddleback Meadows based on the 318 unit project.
October 22, 1996	-	Board of Supervisors public hearing on appeal of Planning Commission Action. The Board denied the Appeal. The Supervisors then motion to approve a project with a density cap of 100 lots (Draft EIR alternative No. 4). The motion did not carry and the Board directs staff to report back to the Board by November 5th, regarding the process to initiate a reversion to acreage on the Saddleback Meadows property, (i.e. remove the existing Recorded Final Tract Map).
November 5, 1996	-	Board of Supervisors hear County staff's report concerning the reversion to acreage procedure. The motion to initiate the reversion to acreage does not carry. Supervisor Saltarelli requests staff to inquire about the potential acquisition of the Saddleback Meadows property for public purposes. The Board does not certify the EIR No. 561.
November 8, 1996	-	Applicant receives transmittal from County expressing the desire to explore possible full or partial acquisition of the Saddleback Meadows property.
November 18, 1996 to March 7, 1996	-	Applicant works with County staff and representatives of the community and the Foothill Trabuco Review Board to explore the possibility of negotiating a reduced development project in conjunction with a partial acquisition of the property.
December 3, 1996	-	County accepts Grading application for Tract 10692 (for 705 units). Assigned Grading Application Number GA960048.
December 16, 1996	-	County determines that a Subsequent EIR is required to evaluate the effects of the grading application.
December 24, 1996	-	County circulates Notice of Preparation (NOP) of a Draft Subsequent Environmental Impact Report (#566) related to the Grading Application GA960048, for Tract Map 10692.
February 6, 1997	-	County re-circulates NOP document for SEIR #566.
May 30, 1997	-	Applicant submits application for Use Permit to allow construction of a temporary project identification/future construction sign on the Saddleback Meadows property.

September 9, 1997	-	Planning Commission denies Use Permit for sign.
September 19, 1997	-	Applicant appeals Use Permit denial to Board of Supervisors.
December 3, 1997	-	Planning Commission certifies Final Subsequent EIR 566.
December 9, 1997	-	Board of Supervisors denies applicants appeal and affirms Planning Commission's denial of Use Permit for a site sign on Saddleback Meadows.
February 9, 1998	-	St. Michael's Abbey transmits an offer to California Quartet for a partial purchase of Saddleback Meadows through their legal representative.
February 24, 1998	-	Board of Supervisors hearing upholding certification of Final Subsequent EIR 566. Supervisor Spitzer to provide Board with an update regarding potential settlement negotiations with Applicant regarding pending litigation against the County, within 45 days (April 14, 1998).
March 6, 1998 to August 1998	-	First in a series of settlement negotiation meetings involving St. Michael's Abbey, the Ramakrishna Monastery, California Quartet, and the County. CQ agrees to study a series of reduced development alternatives in conjunction with partial acquisition.
June 2, 1998	-	Board of Supervisors Hearing. Supervisor Spitzer presents status report on Saddleback Meadows project with direction to County Counsel and Planning & Development Services Department staff to prepare for consideration by the Board a settlement agreement containing the following "Conceptual" terms: 1) $1.5 million in appropriated County funds (Strawberry Field funds) will be utilized to acquire an interest in the subject property with the understanding that it is to be used only in conjunction with $10.5 million from St. Michael's Abbey to purchase the entire property with escrow to close on or before October 29, 1998 with language that if the "Strawberry Field funds" are not available for this proposal that it will not trigger the development option until the Board has had an opportunity to explore alternative funding and that County's contribution of $1.5 million shall be reimbursed in the event the property is used for a purchase which derives financial benefit; 2) request that all litigation by St. Michael's Abbey and/or California Quartet will be tolled; 3) County staff will immediately begin processing general plan, specific plan, zone change, area plan, tentative tract map applications and any other required plan/application for the 299-lot development plan to be considered for approval if the acquisition is not completed by October 29, 1998; and 4) request that California Quartet cease processing any permits related to the 705-unit manufactured home subdivision until October 30, 1998.

June 12, 1998 - Letter of intent regarding purchase and sale of Saddleback Meadows property to CQ from St. Michael's Abbey. Abbey indicates that as part of the terms, they would be allowed to develop the property.

June 15, 1998 - CQ formally requests County cease processing of the grading plan check application based on Recorded Tract Map 10692 (705 units), in accordance with the conceptual terms of the settlement agreement referenced in the Board of Supervisors motion of June 2, 1998.

June 22, 1998 - Area Plan and Zone Change application for the 299-unit "Contingency Plan" submitted to County.

June 23, 1998 - Board of Supervisors' Hearing – Supervisor Spitzer's update on Saddleback Meadows.

3. Project Description

The project proposes the construction of 299 single-family detached dwelling units (the proposed project). The average lot size for this project is approximately 6,672 s.f., with a minimum lot size of 5,000 s.f. Access to the project would be provided via a gate guarded private street off El Toro Road immediately south of the existing Aliso Creek/Trail under-crossing structure. An emergency only access connects with Valley Vista Way. All habitable structures are proposed to be protected by automatic fire sprinkler systems. The project site is approximately 222.2 acres in size. Total open space exceeds approximately 70%.

The project acreage (222.2 acres) does not include the adjacent off-site water tank site. A water tank with a maximum capacity of 1.4 million gallons, and associated access road, are proposed off-site adjacent to the northeast corner of the project site to provide water service to the proposed project. The proposed water tank site was previously dedicated to the Trabuco Canyon Water District when the existing Final Tract Map was recorded (Tract No. 10692). The water tank will be approximately 30-feet tall, 100 to 110-feet in diameter, and will be bermed, landscaped, and painted a complimentary color to the surrounding setting. A total of approximately 8 acres of off-site area would be affected as a result of project implementation to accommodate slope area, access roads, related remedial grading, the water tank, and County of Orange fuel modification requirements.

On-site circulation is proposed with a system of private streets consisting of a primary spine street (56-foot r.o.w.) and a series of cul-de-sacs (41-, 45-, and 52-foot r.o.w.). An encroachment easement is required from the County of Orange to accommodate the project access road where it traverses County owned property along the western-most boundary of the site.

The project has been designed to minimize impact on the existing landform. The homes have been located on the relatively level areas in a broad crescent shape flowing along the southern and eastern sides of the site, while the steep terrain of the central canyon area has been left as open space. Development is kept off the eastern

and northern major ridgelines bordering the property. A primary design consideration in establishing the rural-like character of Saddleback Meadows is presenting a landscape enveloped community when viewed from the surrounding areas and from within the development. In response to this design intent and the interests of St. Michael's Abbey, the Ramakrishna Monastery and the neighboring Hidden Ridge community, specific grading techniques, site planning, and landscape elements will be incorporated within the project. The intent of these features will be to enhance the views of Saddleback Meadows from the surrounding areas.

Design features such as landform grading, resource enhancement, and recreation/open space components are summarized as follows:

- Landform grading along the northern side of the primary spine road, and the majority of the southern development edge, designed to screen off-site views of the development area.
- A wildlife movement corridor system designed to accommodate primary wildlife movement through a 400 foot wide east-west corridor (not counting 50' wide buffer zones on either side of the corridor).
- Preservation of the southerly ephemeral pond.
- A ±90-acre extension of O'Neill Regional Park that may include a trail head/pocket park and ridge top lookout park as possible amenities.
- A hiking trail connecting the Aliso Creek Riding/Hiking Trail and the Live Oak Hiking Trail to the trail staging area and O'Neill Regional Park.
- Relocation of residential lots adjacent to the wildlife corridor and St. Michael's Abbey.
- Preservation of the oak woodland associated with the east-west wildlife movement corridor.
- Revegetation of the wildlife movement corridors with native plant materials.
- Elimination of side yard slope retaining walls.
- The elimination of a commercial use.
- Approximately 68.6 acres of Restricted Scenic Preservation Easement (open space).

Implementation of the proposed project would require grading totaling approximately 8.6 million cubic yards. The above outlined features of the proposed project would result in an incremental reduction in impacts to biological resources, traffic, noise, air quality, aesthetics, recreation, as compared to the approved project for a 705-unit manufactured housing project. In addition, the proposed project incorporates the most recent position of the resource agencies (U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Army Corps of Engineers) pertaining to the location and width of the on-site wildlife movement corridor.

The proposed project site plan is shown in Exhibit 3, with the contour grading concept shown in Exhibit 5 and the landscape and revegetation plan shown in Exhibit 6 in this document. The proposed project land uses are summarized in the following table.

Proposed 299-Lot Project
Land Use Summary

ON-SITE	ACREAGE	% OF SITE
Residential Lots	45.8	21%
Streets (private)	17.8	8%
Regional Park	90.0	41%
Restricted Scenic Preservation Easement	68.6	30%
Subtotal	222.2	100%

The 299-unit project proposes a total of 158.6 acres or 71% of on-site open space, approximately 30.47 acres more than the approved project.

Orange County General Plan

The project site is subject to policies contained in Land Use Element, Circulation Element, Housing Element, Public Services and Facilities Element, Noise Element, Recreation and Safety Element of the Orange County General Plan.

Land Use Element

The Orange County General Plan Land Use Element (Adopted June 1982), designates the Saddleback Meadows project site as 1B (Suburban Residential - 0.5 to 18 du/ac). The Community Profile, which is not a part of the General Plan, designates the site as 1.2 low density residential (0.5 to 2.0 du/ac.)

Housing Element

The Orange County General Plan Housing Element was adopted September 13, 1993 and is a comprehensive statement of broad and specific policies to facilitate development of housing in the County. The project site is located in Regional Statistical Area (RSA) 43-C. RSA 43-C had a 1995 population of 190,700 with a year 2000 population projection of 212,700 (2.3 percent growth). RSA 43-C had a 1995 jobs to housing ratio of 3.80, the highest in the County.

In 1979, the County adopted the Inclusionary Housing Program (IHP), which required developers to provide 25 percent of all new dwellings within the affordable category (i.e., 120 percent or less of median income). In 1983, the IHP was replaced by the Housing Opportunities Program (HOP), which phased out mandatory requirements over a three-year period in favor of voluntary compliance with affordable housing objectives encouraged by County incentives and market forces. Adoption of the HOP did not rescind prior approvals of mandatory affordable housing requirements placed on projects as conditions of approval under the IHP.

A total of 26,907 mandatory affordable units have been required to date as part of General Plan amendments or zone changes. The vast majority of these (24,268) are found within planned communities, with the remainder scattered in conventionally-zoned parcels.

The previously approved and recorded Final Tract Map 10692 was required in the IHP/HOP to provide 66 2/3 percent of total construction as affordable housing (mobile homes). Since it was an original Condition of Approval, this requirement still applies to the project even though the County-mandated affordable housing requirements have since been rescinded.

Foothill-Trabuco Specific Plan

In December 1991, the Foothill-Trabuco Specific Plan was adopted by the County Board of Supervisors, and replaced the Foothill-Trabuco Feature Plan. This action converted the then policy level Foothill-Trabuco Feature Plan into a regulatory-zoning level Specific Plan. The Specific Plan sets forth goals, policies, land use district regulations, development guidelines, and implementation programs designed to preserve the area's rural character and to guide future development in Foothill-Trabuco area.

To facilitate planning efforts, three (3) individual planning areas were created within the overall Specific Plan Area: 1) Upper Aliso Planning Area; 2) Trabuco Canyon Planning Area, and 3) Plano Trabuco Planning Area. The project site is located within the Upper Aliso Planning Area and is designated, the "Bridlewood Residential District".

While the Foothill-Trabuco Specific Plan was adopted with the intent of guiding future land use within the Specific Plan area, its approval post-dated that of Tract Map 10692 by some 12 years. Accordingly, the current project, originally approved in 1979, is effectively exempt from the provisions of the Foothill-Trabuco Specific Plan.

The following passages are excerpted from the Land Use Regulations section of the Specific Plan:

> *As long as the site is developed in accordance with the existing Saddleback Meadows Planned Community zoning (Zone Change 84-3P) and Recorded Tract 10692, the project site shall be exempt from all of the Regulations and Guidelines included in this Specific Plan other than those provided for by this District.* (Emphasis added)
>
> *The Bridlewood Residential District is established to recognize the existing zoning and tract map approvals for the Bridlewood (Saddleback Meadows) property which permit the development of 705 manufactured homes on the site. While the Board of Supervisors does not believe that these approvals are consistent with the Goals and Objectives of the Specific Plan, the property owner has recently declared bankruptcy. A legal stay precludes the Board of supervisors from taking any action related to the property that would affect its*

value. However, the provisions of this District require that the Specific Plan be amended to determine an appropriate density cap and District Regulations for the property in the event that it cannot be developed in a manner which is consistent with the approved zoning and tract map (Foothill-Trabuco Specific Plan p. III-20).

Aliso Creek Corridor Specific Plan

The Aliso Creek Corridor Specific Plan (concept) was adopted in July 1978 and outlines open space and recreational policies and programs for Aliso Creek and proximal surrounding areas, from it's headwaters in the Cleveland National Forest to its outlet into the Pacific Ocean at Laguna Beach. The goals of the Aliso Creek Corridor Specific Plan area as follows:

- The preservation of the natural character of the Aliso Creek Corridor from the forest to the sea, including the creek course and banks, irreplaceable resources and environmental features.

- The utilization of the Aliso Creek Corridor as an organizer for various systems including, but not limited to, recreation, circulation, public service and development.

- The provision of opportunities to provide for alternative means of transportation and recreation within the Aliso Creek Corridor utilizing bicycle, pedestrian, and equestrian trails, while minimizing conflicts with vehicular traffic along and across the corridor.

- The utilization of the Aliso Creek Corridor as a regional recreation/open space amenity providing a variety of recreation opportunities.

- Provision of a well-organized program designed to implement the Aliso Creek Corridor Specific Plan.

The project site is partially located within the Aliso Creek Corridor Specific Plan, with the Specific Plan's boundary formed by the Aliso Creek watershed limits. The site is located within Planning Unit 5 and more specifically Sub-area 33. Sub-area 33 is designated for open space and recreation land uses. In addition, the Concept Plan shows a regional bike trail on-site.

Zoning

The entire project site is currently zoned "S"-Foothill-Trabuco Specific Plan with "SR"-Sign Restriction overlay district. The Bridlewood/Saddleback Meadows Residential District was established within the Foothill-Trabuco Specific Plan, adopted December, 1991, to recognize the existing zoning and tract map approvals for the Bridlewood/Saddleback Meadows property. A zone change (ZC98-3) will be required to

amend the Foothill-Trabuco Specific Plan ("Bridlewood Residential District") (Specific Plan Amendment), Page III-20 (Section III.D.3.0 through 3.4). Although not a project-specific requirement, the County of Orange would be required to implement a General Plan Amendment to modify project-related affordable housing requirements no longer in effect. Once Zone Change 98-3 is adopted, the proposed project would be in substantial compliance with the Foothill-Trabuco Specific Plan.

III. ANALYSIS OF IMPACTS/MITIGATION:

The impact analysis contained in this Addendum compares project level and cumulative impacts of the previously approved project for 705 manufactured homes to the currently proposed project for 299 units for Saddleback Meadows. This section does not contain the full body of text from Certified SEIR 566, however, incorporates those sections by reference which are not duplicated herein in order to avoid redundancy.

1. LAND USE AND PLANNING ANALYSIS

PROJECT IMPACTS

Land Use Compatibility

The approved project for 705 units would construct manufactured single-family detached dwelling units, streets, slopes and associated infrastructure on the currently vacant project site. Minimum lot size for the approved project would be about 2,630 sf., which is smaller than the 3,000 sf. and 5,000 sf. required for the neighboring Portola Hills and Hidden Ridge single family detached residential communities, respectively. Both Hidden Ridge and Portola Hills also have attached residential units. A comparison of surrounding project gross densities is shown in EIR 566, Table 5 of Section 3. The approved project has a higher gross density than surrounding area projects.

O'Neill Regional Park is located adjacent to and directly south of the project site. The portion of the park adjacent to the site is primarily devoted to wilderness activities. As a result, implementation of the previous and proposed project would not be compatible with existing and planned park uses.

The Ramakrishna Monastery is also located adjacent to the southern boundary of the project site. This religious facility is occupied by seven resident monks and serves a limited number of visitors. Due to the contemplative purposes for which this facility exists, the previous and proposed project would not be compatible with the Ramakrishna Monastery.

Scattered estate density residential land uses are located adjacent to the eastern and northern project boundaries, although they would be physically separated from the project site by an intervening major ridgeline. These surrounding areas contain minimum one and 2.5-acre lots, and would not be considered compatible with the previous or proposed projects.

St. Michael's Abbey is located north of the project site and functions as a religious and educational facility. Introduction of the approved project adjacent to the Abbey would result in a land use incompatibility. The incompatibility between development and the Ramakrishna Monastery and St. Michael's Abbey is partially offset by some natural open space buffering and topographic landscape screening.

The proposed project does provide additional buffering through site design, with landform berming and contour grading, working in concert with landscaping to further screen and filter views of the development edges. A major design feature of the proposed project for 299 units is the single loaded primary spine road (residential development south of the spine road and landform grading to the north), which is intended to screen off-site views of the on-site development area. Landform grading and limited use of loffel walls are proposed to minimize the views of the development area from off-site locations. In addition, the proposed project would provide for a wildlife movement corridor system, which would effectively apportion the development into three residential enclaves. Additional single-family residential dwellings were located within the north central portion of the project site in the approved project, as compared to the proposed project, which has undisturbed open space in the same area.

The discussion on pages 4-1 through 4-13 of Certified Final SEIR 566 remains appropriate for this project. The reader is also directed to pages 4-1 to 4-17 of Final EIR 561. The proposed project would be in conformance with the Orange County General Plan, Foothill Trabuco Specific Plan and zoning, through the implementation of appropriate mitigation measures.

No significant unavoidable adverse impacts to land use would occur with implementation of the proposed project beyond those previously identified and addressed in Certified Final Subsequent EIR 566 for which a Statement of Overriding Considerations was adopted.

Orange County General Plan

Land Use Element

After approval of General Plan Amendment and Zone Change, the proposed project will be in conformance with all elements of the County General Plan, including the Land Use Element, Noise Element, Transportation Element, Housing Element, Growth Management Element, Safety Element, Public Services and Facilities Element, Recreation Element, and Resource Element.

Housing Element

The approved project would have supplied 705 manufactured single-family residential dwelling units into RSA 43-C, a jobs-rich, housing-poor area. This would have provided a significant addition to the County's stock of affordable housing units. This is noteworthy because the project was conditionally approved in 1979 with a 66 2/3

percent affordable housing requirement in accordance with the County's Inclusionary Housing Program (IHP). Although this mandate has since been rescinded, the original affordable housing requirements are still attached to Final Recorded Tract Map 10692. As per the Conditions of Approval originally placed on Tentative Tract 10692, a total of 470 lots are to be sold in the affordable range. This figure is further broken down as follows: 188 low/ moderate, and 282 Medium I, as defined by the County. The proposed project would not provide affordable housing stock to the County's housing stock.

Foothill-Trabuco Specific Plan

The approved project is inconsistent with many of the goals, objectives, and policies of the Foothill-Trabuco Specific Plan which generally calls for the preservation of the rural character and natural habitat of the Foothill-Trabuco area. The current proposal for 299 units is more consistent with the provisions of the plan. The proposed site has been designated "Bridlewood Residential District" by and was made a part of the Specific Plan. Accordingly, the project is exempt from provisions of the Specific Plan. The Specific Plan reads as follows:

> *The Bridlewood (Saddleback Meadows), Lyon Ranch (Saddleback Community Church), Santiago Ranch and Zadeh properties currently have approved or recorded tract maps in effect. Except in the event that proposed development on these individual properties cannot be found consistent with previous approvals, the subject properties shall be exempt from all of the Regulations and Guidelines included in this Specific Plan and shall be subject to the zoning in effect at the time of . . . project approval.*

Although the Saddleback Meadows area is deemed exempt from the goals, objectives and policies of the Foothill-Trabuco Specific Plan, there are certain features of the project which attempt to satisfy community amenities and standards for development. Specifically, these include the incorporation of riding, hiking and bicycle trails, and eight private park sites.

The previously proposed project conflicts with the Foothill-Trabuco Specific Plan specifically with regard to the preservation of a regionally contiguous wildlife corridor. Furthermore, the Specific Plan states that the type of homes previously proposed (manufactured homes) would be incompatible with site topography and biological resources. The Specific Plan reads as follows:

> *It is recognized that the Specific Plan Area, due to its steep terrain and sensitive biological resources, is inappropriate for the provision of affordable housing. The provision of (high density) affordable housing conflicts with the goals and objectives of the Specific Plan which include maintaining the rural character of the area, providing a buffer between urban development and the Cleveland National Forest and preserving significant biological resources and natural landforms.*

The Saddleback Meadows "Rural Character Statement" establishes the community design concept of the project. It responds to the project team's intent for a rural community theme and character and to design considerations expressed by Saint Michael's Abbey, Hidden Ridge residential community, and the Ramakrishna Monastery. Further, it is used as a guideline for community design and as a "tool of measure" to be used by the Planning commissioners during the review of the Use Permit. The Saddleback Meadows community will incorporate community wide design elements and features reflective of the rural character. A primary design consideration in establishing the rural character of Saddleback Meadows is presenting a landscaped enveloped community when viewed from the surrounding areas and from within. This is accomplished through creative contour grading, berming at select and appropriate locations, creative site planning techniques, and an aesthetic community wide landscape.

Aliso Creek Corridor Specific Plan

The previous and the proposed project do incorporate regional riding and hiking trail connections into the design, however, conflict with several other aspects of the Aliso Creek Corridor Specific Plan. The proposed project does not warrant the need to channelize Aliso Creek along El Toro Road as the previous 705-unit project does. The approved project (705 units) is in direct conflict with the Natural Communities Conservation Planning Program (NCCP) in that it would further disturb a sensitive wildlife habitat area and inhibit the movement of wildlife through the area. However, the proposed project would not preclude the viable movement of small and medium size mammals and birds, because of the incorporation of a wildlife movement corridor into the design of the project.

Zoning

The previous and proposed projects are in conformance with County zoning standards. No conflicts would result.

Impact Significance Criteria

The effects of a project on existing or planned land uses are considered to be significant if the proposed project conflicts with one or more of the following:

A. Conflicts with General Plan land use or zoning designations or policies;

B. Conflicts with existing or planned land uses on-site or adjacent to the project site, e.g., disrupts the physical arrangement of an established community or causes development within or adjacent to open space preserved for habitat value;

C. Results in conversion of prime agricultural land to non-agricultural uses, or impairs the productivity of prime agricultural land;

D. Causes significant urban growth.

These criteria are derived from the County PDS/Environmental Analysis Checklist.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the approved proposed project, would result in significant land use compatibility impacts to O'Neill Regional Park, the Ramakrishna Monastery St. Michael's Abbey, and surrounding residential communities. The project would also conflict with policies of the Aliso Creek Corridor Specific Plan.

CUMULATIVE IMPACTS

Implementation of the approved or proposed project, in conjunction with the identified related projects, would result in additional urban intensity within and adjacent to the Foothill-Trabuco Specific Plan area.

MITIGATION MEASURES

Standard County Conditions and Mitigation Measures

SC 1-1 Prior to the issuance of any building permits for residential construction, the developer shall comply with Board of Supervisors Resolution 82-1368 (Buyer Notification Program) which requires the developer to prepare a map denoting the existing and proposed land uses, arterial highways, and public facilities within the surrounding area for the approval of the Manager, PDS/Current Planning Services Division. The map content, display, and distribution shall be in accordance with the Buyer Notification Program guidelines approved by the Board of Supervisors and available at the Development Processing Center.

SC 1-2 Prior to the issuance of any certificates of use and occupancy, the developer shall provide evidence to the Manager, PDS/Building Inspection Services Division, that the Department of Real Estate has been notified that the project area is within the boundaries of a Community Facilities District (CFD), and will be subject to special taxes for public facilities and/or services.

Land Use Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project consists of 299 units on 160 acres (1.9 du/ac), compared to 705 units on 191 acres (3.7 du/ac) for the approved project., and it includes 62.2 acres of open space, compared to 31 acres for the approved project. The proposed project also provides more recreational amenities (a passive park and trailhead staging area) and a wildlife movement corridor system.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	Although the proposed project will continue to have a significant impact on land use compatibility, no new adverse impacts will occur.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

2. SOILS AND GEOLOGY ANALYSIS

PROJECT IMPACTS

Grading

Implementation of the approved project for 705 manufactured homes would require the following grading actions:

- Multiple cuts and fills (2.6 million cubic yards of conventional grading) to achieve planned elevations and profiles, and associated access roadways.
- Remedial grading (8.9 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills;

- Removal (clean out) of all or major portions of the graben materials and softer alluvium and colluvium under most of the variable thickness fills;

- Installation of appropriate subdrain systems within natural drainage courses and within stability fills prior to fill placement;

- Adequate foundation and slab subgrade conditioning for the proposed development, including overexcavation, capping and measures related to expansive soils;

- Achieving suitable surface gradients, to preclude ponding anywhere on-site and to control water run-off via paved/closed drainage devices.

Implementation of the proposed remedial grading features, including removals/cleaners, buttress construction, subdrain systems, and temporary stockpiling are not anticipated to result in any impact to the stability of adjacent properties.

Based on average daily grading of 30,000 cubic yards/day, total proposed project-related grading (8.9 million cubic yards) would require approximately 10 months to complete. All preliminary grading would be completed in one continuous phase.

Geotechnical Conditions

The document entitled "Geotechnical Environmental Impact Report for Draft EIR No. 566 for Final Tract Map 10692 Saddleback Meadows Development" concludes that the site is geotechnically suitable for the previous and proposed project. This conclusion is based on the following conditions:

1. On-site bedrock and large landslide blocks have low settlement potential.

2. There is sufficient low to non-expansive materials to generate select fills

3. On-site liquefaction is not expected.

4. Bedrock can be excavated; no blasting is anticipated.

5. Grading east of the Abbey property will produce fill in the gully area which will stabilize slopes on the Abbey property.

6. No known active faults are present at the site and surface rupture during earthquakes is not expected.

7. Planned remedial grading will reduce the potential for earthquake-induced landsliding.

8. The site does not lie within the 100-year flood zone.

9. Subsidence at the site due to fluid withdrawal should not occur since no major ground water aquifers or petroleum reservoirs are known to underlie the site.

10. Site grading will reduce the potential for surficial erosion and the consequential siltation of nearby Aliso Creek.

The geotechnical report contained in Certified Final SEIR 566 also describes several unfavorable geotechnical conditions that could compromise the site's ability to support the project. Mitigation measures are recommended however, to correct these conditions and ensure that future development would be adequately and safely supported. The geotechnical report identifies the following conditions as being unfavorable: presence of unstable landslides, occurrence of some moderately to highly expansive soils and bedrock units, and presence of adverse bedding conditions and the presence of some perched ground water.

These unfavorable conditions can be mitigated by implementing corrective grading concepts, such as the construction of buttresses and shear keys, placement of expansive materials in deep fills, buttressing of cut slopes where necessary, construction of canyon subdrains and back drains to minimize or eliminate the affects of ground water, removal of compressible materials and replacement with compacted fill, and construction of large buttress cuts in segments to reduce the possibility of backcut failure.

In comparison, implementation of the proposed project for 299 units would require approximately 2.1 million cubic yards of cut and fill conventional grading and 6.8 million cubic yards of remedial grading (remove and replace) for a total grading quantity of 8.9 million cubic yards. The required grading for the proposed project would require 2.6 million cubic yards less than that required to implement of the proposed project. Grading quantities incrementally decreased under the proposed project as a result of the reduced earthwork required to create the landform grading along the visually prominent project edges. A supplemental geotechnical evaluation of the proposed project is included in Appendix A of this document. The supplemental investigation for the proposed project was conducted on June 22, 1998 by G.A. Nicoll and Associates, Inc. The purpose of the study was to evaluate the proposed project and its impact on the site conditions, to revise the previous geotechnical cross sections to reflect the new grades, to conduct stability analyses and to provide other additional geotechnical data to supplement the previous Geotechnical investigation of November, 1995.

The remedial grading required for the proposed project (299 lots) is significantly reduced from the 705-unit grading concept for the original entitled plan. The total remedial grading quantity for the proposed project is approximately 6.8 million cubic yards compared to the approved project with 8.9 million cubic yards. The study concluded that the site is developable.

Much of the general discussion on pages 4-13 through 4-33 of SEIR 566 and in Appendix D (Geotechnical Evaluation) of the Certified SEIR remain appropriate for the

proposed project. Prior to implementation of mitigation measures, grading would result in significant impact related to slope stability, landslides, mudslides, subsidence and erosion. Review by County geotechnical experts, implementation of the proposed remedial grading features, including removals/cleaners, buttress construction, subsurface systems, and temporary stockpiling, would not result in any impact to the stability of adjacent properties. An average daily grading quantity of 30,000 cubic yards/day (total grading 8.9 million cubic yards) would require approximately 300 days (10 months) to complete grading operations.

The proposed project will eliminate an existing geotechnical hazard by remediating the existing deep seated ancient and surficial landslides on the property.

No significant unavoidable adverse impacts to soil and geology would occur with implementation of the proposed project.

Impact Significance Criteria

Earth resource impacts resulting from the proposed project could be considered significant if it causes any of the following impacts:

A. Changes in the geologic substructure or unstable earth conditions.

B. Exposures of people of property to geological hazards like landslides, mudslides, ground failure or similar hazards.

C. Substantial disruptions, displacements, compaction or overcovering of the soil.
D. Substantial increase in wide erosion of soils.

E. Changes in siltation, deposition or erosion that may modify the channel of a river or stream, or the bed of any bay, inlet or lake.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to the application of mitigation measures would result in significant impacts related to slope stability, landslides, mudslides, subsidence and erosion.

CUMULATIVE IMPACTS

Geotechnical impacts are not considered on a cumulative basis.

MITIGATION MEASURES

Project Design Features

PDF 2-1 A comprehensive remedial grading mitigation plan has been designed to stabilize the project site, in accordance with OCPDS requirements. The plan is depicted in Exhibit 19 of SEIR 566, p. 4-26, included in Appendix D of SEIR 566 and proposes measures including shear keys, buttresses, removals/recompaction to reduce hazards associated with landslides, erosion and subsidence.

Standard County Conditions and Mitigation Measures

SC 2-2 Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, PDS/Subdivision and Grading Services Division for approval. The report shall include the information and be in a form as required by the Grading Manual.

SC 2-3 Prior to the issuance of any grading permits, the Manager, PDS/Subdivision and Grading Services Division, shall determine if the proposed grading complies with the grading illustrated in the plans approved by the decision-maker with regard to grading concepts, slope heights, slope ratios, and pad elevations and configuration. Significant deviations shall be reviewed by the decision-maker for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised application per Orange County Zoning Code Section 7-9-139 and 7-9-150.

SC 2-4 Prior to the issuance of the first grading permit, for projects located immediately adjacent to or including portions of regional parks, significant open space corridors, or other environmentally sensitive areas, the project proponent shall provide evidence acceptable to the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Harbors Beaches & Parks Division, that graded areas will be compatible with natural land characteristics of the adjacent open space areas including techniques to enhance a smooth and gradual transition, urban edge treatment plans and incorporating view enhancement through architectural and design techniques.

SC 2-5 Prior to the issuance of any grading permit, off-site grading and/or drainage shall be conducted in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-6 Prior to the issuance of a grading permit, substantial compliance with the following shall be certified by a registered engineer in a manner meeting

the approval of the Manager, PDS/Subdivision and Grading Services Division:

- Fill soils shall be placed in layers that are less than 8 inches thick and moisture-conditioned generally 1- to 2-percent above optimum moisture content. The existing diatomaceous soils should be moisture-conditioned to 125-percent of optimum moisture content.

- For preliminary earthwork computations, the following shrinkage/bulking factors are recommended for the on-site material (these do not include handling losses): Bedrock - 5% bulking; slopewash - 5% shrinkage; and Other Soils - 15% shrinkage. Grading plans shall include an area where finish grades can be raised or lowered to accommodate changes in actual material quantities.

- Dewatering shall be achieved using sumps and pumps located strategically within the excavated area. However, the excavation shall be carefully observed; if the conditions warrant, supplementary dewatering provisions shall be made. It is the responsibility of the contractor to provide an adequate dewatering system during construction.

Seismic

SC 2-7 Conformance with the Uniform Building Code and Orange County codes will insure that seismic considerations are incorporated into the structural designs. All recommendations of the geotechnical report shall be incorporated and utilized in the final construction plans for the parcels in a manner meeting the approval of the Manager, PDS/Building Permit Services Division. Larger buildings, structures with extraordinary architectural configurations, or those of tilt-up construction may require seismic analysis.

SC 2-8 The seismic exposure of the site shall be considered in the design of the proposed structures in a manner meeting the approval of the Manager, PDS/Building Permit Services Division.

SC 2-9 Geologic inspections shall be required during site grading for each parcel to confirm the absence of major faults in the local area in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-10 Prior to the issuance of any grading permits, if review of the grading plan for this property by the Manager, PDS/Subdivision and Grading Services Division, indicates significant deviation from the proposed grading

illustrated on the approved tentative tract map, specifically with regard to slope heights, slope ratios, and pad elevations and configuration, the plan shall be reviewed by the Subdivision Committee for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised tentative tract map; or, if a final tract/parcel map has been recorded, a new tentative tract/parcel map or a site development permit application per Orange County Zoning Code Section 7-9-139 and 7-9-150. Additionally, a new environmental assessment and determination is required.

SC 2-11 Prior to the issuance of any grading permit, if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the affected property owners for off-site grading and/or drainage. The owner/applicant shall record said letters of consent for off-site drainage and/or cross-lot drainage prior to recordation of the tract/parcel map or prior to the issuance of any grading permit, whichever comes first.

SC 2-12 Prior to the issuance of any preliminary grading permits, the subdivider shall request that the Vector Control District initiate the survey process of the tract/parcel map site to determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-13 Prior to issuance of grading permits, a Water Quality Management Plan (WQMP) shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division. The WQMP shall identify, at a minimum, the application and incorporation of those routine structural and non-structural BMPs outlined in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix G detailing implementation of BMPs not dependent on specific land uses, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-14 Prior to the issuance of any grading or building permits, whichever comes first, the applicant shall provide, in accordance with criteria supply by EMA, a "Hazardous Materials Assessment" and a "Disclosure Statement" covering the property (both fee and easement) which will be offered for dedication to the County of Orange, for review and approval by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Monitoring Programs Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

Grading

AM 2-15 Multiple cuts and fills (approximately 2.1 million cubic yards) to achieve planned elevations and profiles, and associated access roadways shall be required.

AM 2-16 Remedial grading (approximately 6.8 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills shall be required. Back cut failure guidelines shall be provided to the Grading Services Division prior to issuance of grading permits.

AM 2-17 Removal (clean out) of all or major portions of the graben materials and softer alluvium and colluvium under most of the variable thickness fills shall be required.

AM 2-18 Installation of appropriate subdrain systems within natural drainage courses and within stability fills prior to fill placement shall be required.

AM 2-19 Adequate foundation and slab subgrade conditioning for the proposed development, including over excavation, capping and measures related to expansive soils shall be required.

AM 2-20 Achieving suitable surface gradients to preclude ponding anywhere on-site and to control water run-off via paved/closed drainage devices shall be required.

Compaction

AM 2-21 Wherever structural fills are to be placed, the upper 6 to 8 inches of the exposed subgrade (after stripping and/or over excavation/clean-out) shall first be scarified and reworked. In general, the dry density of the in-situ (native) material shall be at least 85 percent of maximum. In the event that lower densities are determined by field testing to exist, the depth of over excavation will be determined on-site, given due consideration to the geology of the exposed material, as well as its relative location. It is at present expected that typical depths of over excavation will be on the order of 4 to 5 feet.

AM 2-22 Fill shall be placed in lifts of 6 to 8 inches (loose) in thickness. Rocks exceeding 4 inches in maximum dimension are best not incorporated

within the upper fill zone (say 3 feet) where foundations and most utility systems are expected to be housed.

AM 2-23 In all fill areas where active gradients are steeper than 5:1 (horizontal:vertical), those surfaces shall be prepared to receive fill by excavating standard keyways and benches in a stair-step configuration.

AM 2-24 Any loosening of reworked or in-place (native material, consequent to weathering and/or passage of construction traffic, shall be made competent.

AM 2-25 Temporary fills, typically associated with access ramps built to accommodate grading equipment shall be subject to removal when their use is discontinued.

AM 2-26 The depths of excavation shall be subject to on-site monitoring by the Soil Engineer, normally during the actual removal operations. Any surface or subsurface obstructions, or questionable material encountered during grading, shall be brought immediately to the attention of the Soil Engineer, for his determination as to proper exposure, removal and/or processing as directed.

Material Selection

AM 2-27 After the site has been stripped of any debris, vegetation and organic soils, such exposed on-site shall be considered satisfactory for reuse in the construction of on-site fills, provided the organic content does not exceed 3% by volume. It is recommended that highly expansive soils not be placed within the upper 4 to 5 feet thick zone underlying final pad and street grades. More importantly, no such soil is to be placed (as backfill) within a horizontal distance equal to the wall height immediately behind retaining walls.

AM 2-28 Any objectionable material, as determined by the Soil Engineer, shall be subject to relocation in deeper fill areas or removal off-site.

AM 2-29 All borrow sites shall be approved by the Soil Engineer/Geologist prior to on-site delivery. This will permit the timely allocation of such available materials for use on the project site.

Compaction Requirements

AM 2-30 Reworking/compaction shall include water addition or drying-out as needed, to bring the soils close to their optimum moisture content. All such reworked soils, placed as structural fills, shall be densified to achieve at least 90 percent relative compaction with reference to the laboratory

compaction standard. The optimum moisture content and maximum dry density, for each identified soil type, will be determined in the laboratory in accordance with ASTM Test Designation D1557.

Shrinkage/Subsidence

AM 2-31 For preliminary earthwork computations, an approximate (overall) shrinkage factor of 12 percent shall be required, for the existing site soils. The above value does not include allowance for stripping nor handling losses.

AM 2-32 Subsidence shall be assumed as 3/4 to 1-1/2 inches for grading design purposes.

Excavating Conditions

AM 2-33 Excavation of on-site soils shall be accomplished with standard heavy duty earthmoving or trenching equipment. Some hard cemented sandstone beds were encountered during the field exploration on portions of the site and some minor, isolated blasting may be required to remove these hard materials. If they are not rippable with conventional heavy duty earth moving equipment.

AM 2-34 Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water (seepage) is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher site elevations as well as in cuts made late in the year. All nuisance water shall be accommodated in accordance with County requirements.

Expansion Potential

AM 2-35 On-site materials are considered to be moderately expansive, generally. Soils of high and low expansivity are expected to comprise less than 25% of the overall pad areas. The expansivity of the actual soils placed within structural areas shall be verified during grading, prior to construction.

Utility Trenching

AM 2-36 The typical walls of temporary construction trenches shall stand nearly vertical, with only minor sloughing, provided the total depth does not exceed 4 to 5 feet. Shoring of excavation walls and/of flattening of side slopes may be required, if greater depths are necessary.

AM 2-37 Trenches shall be located so as not to impair the bearing capacity nor settlement under planned foundations. As a guide, trenches shall be aligned perpendicular to foundations, and the Structural Engineer so informed to modify the foundation at the crossing, as needed. All other trenches shall observe a lateral off-set equal to their total depth.

AM 2-38 Existing soils shall be utilized for trench backfill, provided they are essentially free of organic materials and oversized materials (rock, gravel, etc. in excess of 1-inch maximum size, unless within an approved soil matrix). Alternately, select granular materials (sand equivalent of 30 or greater) may be imported as backfill. Compaction should be accomplished entirely by mechanical means, subject to on-site assessment during pipeline installation.

Surface Drainage

AM 2-39 Positive surface gradients shall be provided away from slope tops per approved grading plans and adjacent to the future buildings, so as to direct surface water run-off away from structural areas and toward suitable discharge facilities.

Sulphate Content

AM 2-40 The soils sulphate content shall be ascertained during the concluding stages of rough grading, and the type of cement to be used determined at that time.

Grading Control

AM 2-41 All grading and earthwork shall be subject to on-going testing and observation by the applicants geotechnical consultant, including engineers, engineering geologists and/or technicians.

Slabs-on-Grade

AM 2-42 Concrete slabs shall be founded on approved (reworked) in-place soils and/or on properly compacted fill. The subgrade shall be proof-rolled just prior to construction to provide a firm, unyielding surface, especially if the surface has been disturbed by the passage of time and/or exposure to construction traffic.

AM 2-43 Floor slabs shall be at least 4 inches thick. The Finished Floor Level should be at least 6 inches above highest adjacent exterior grade. Joints shall be provided.

AM 2-44 If flooring that would be affected by moisture is to be used, the slab shall be underlain by 2 inches of sand, with a 10-mil plastic sheet between the sand and the subgrade.

AM 2-45 Precautions in respect to expansive soils shall be taken.

Foundations

AM 2-46 The proposed structures shall be supported on conventional spread footings, supported into approved compacted fill and/or reworked native material.

Long Term Settlement

AM 2-47 The grading concept, as presently proposed, includes several areas where deep fill will result, exceeding 50 feet in depth. These soil masses may experience significant, but considered normal, settlements, with time, of 4 to 6 inches or more. Such downward movements can be tolerated by most improvements, provided these occur at a reasonably uniform rate and rather evenly over a well distributed area. However, the degrees and rates of settlement shall be analyzed during the final design phase.

Phasing of Earthwork

AM 2-48 Unstable Ground
Initial stability evaluations have determined that several natural slopes subject to grading are inherently unstable. Removals, therefore, shall be planned and carried out with care in order to minimize deep-seated, in-construction failures. Typically, statistically about 10 percent of back cuts for buttresses have the potential to fail during grading. Extra care, the use of segmented back-cuts, along with allowances for schedule and budget contingencies will further minimize the potential for back-cut failure during construction.

AM 2-49 Required Clean-Out Work
Prior to improving the gross stability of hillsides, clean-out work will be necessary along their lowest (toe) elevations. Whereas such selective removals are essential prior to placement of additional fill, this process can trigger undesired slippage if proper care is not taken. Therefore, selective unloading of the slide mass shall be required before stabilization can effectively begin.

AM 2-50 Slide Unloading
Where existing slope faces are marginally safe in their present condition, the higher portions of each such slide shall require removals toward the top, prior to clean-out, and subsequent loading at the toe.

Soils and Geology Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will result in 8.9 million cubic yards of total grading, compared to 11.5 million cubic yards of total grading for the approved project. Grading for the proposed project will take 10 months to complete compared to 18 months for the approved project. The proposed project will also result in 31 acres of less disturbance area.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	Although the proposed project will continue to have a significant impact on landform/topography, no new adverse impacts will occur.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

3. WATER/HYDROLOGY ANALYSIS

PROJECT IMPACTS

Implementation of the previous and proposed project will result in the introduction of impervious surfaces (streets, driveways, residential units) and will result in a decrease in the area available for stormwater percolation and a subsequent increase in stormflow runoff. Implementation of the approved project would result in substantially more landform modification than the current proposal for 299 units therefore, redirecting drainage throughout the site.

Post development drainage is proposed to be accommodated through a series of storm drains, catch basins and inlet/outlet structures designed to accommodate a 100 year storm event. The proposed storm drain facilities parallel to El Toro Road will join the existing dual 96-inch diameter CSP storm drain which currently crosses underneath El

Toro Road. The proposed Orange County Flood Control District facility J01 storm drain plans were approved and signed by the County of Orange on November 16, 1988. The storm drain facilities consist of extending the dual 96-inch CSP storm drain to connect with an open channel riprap facility and a 14-foot by 12-foot reinforced concrete box culvert (RCB) that will run underneath the proposed entry road to Saddleback Meadows.

The on-site private storm drain improvement plans were approved and signed by the County of Orange on November 15, 1988. All of the proposed storm drain system is to be constructed of reinforced concrete pipe (RCP) ranging in size from 18 inches to 48 inches. All hydraulic calculations and the related hydrology have been previously approved by the County of Orange. Minor updating of the hydrology might be needed in the future depending on input from the County during review of the 40-scale rough grading plans. Proposed drainage facilities are shown in the following table.

PROPOSED DRAINAGE FACILITY SUMMARY

Storm Drain	Size	Q25 cfs (Discharge	Q_{100} cfs (Discharge)	Outlet Location / Connector
A	27-48 inch	277	300	Aliso Creek
B	18-24 inch	68.2	--	Line "A"
E	30 inch	48.5	--	Line "A"
H	27 inch	41.2	--	Line "A"

Water Quality

On-site surface and groundwater quality has not been evaluated from an analytical constituent standpoint due to: 1) its location at the headwaters of Aliso Creek and Oso Creek, 2) the undeveloped nature of the project site and upstream areas, and 3) the lack of pollutant generation sources. Ongoing livestock grazing activities have resulted in continued contamination of the on-site watering ponds with cattle manure. All organic material will be removed during grading operations.

Discharge of increased and concentrated runoff volumes into on-site natural drainage courses would result in increased erosion and associated sedimentation, primarily due to the unstable condition of drainage course banks.

Urban runoff associated with proposed on-site streets, driveways and manufactured slopes would be directly discharged into on-site drainage courses ultimately discharged to Aliso and Oso Creeks and the Pacific Ocean. Urban runoff constitutes would typically include oil, grease, cleaning products, herbicides, pesticides and fertilizers. Project urban runoff would be subject to an National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Discharge Permit, issued by Regional Water

Quality Control Board (RWQCB). In addition, the proposed project is subject to the County's NPDES requirements.

Project related post-development urban runoff would incrementally impact the ability of Aliso Creek to recover from its currently impaired designation.

In comparison, the proposed project for 299 units would generate substantially reduced storm water runoff volumes and similar domestic water supply requirements, as compared to the approved project. Due to the enhanced habitat restoration and landform/contour grading provided with this alternative, temporary irrigation related water supply impacts are expected to be greater than the approved project with long term domestic supply impacts substantially less than the approved project. In addition, the proposed project would require less alteration of on-site natural drainages than the approved project, incrementally reducing the potential for increased urban runoff impacts.

Much of the discussion on pages 4-33 through 4-43 of SEIR 566 and Appendix E (Hydrology Study) in the Technical Appendices of Certified SEIR 566 remain appropriate for this alternative. Twelve (12) standard conditions/mitigation measures requiring compliance with the Master Plan of Drainage, NPDES, erosion control strategies, construction of site drainage systems and compliance with county and state water quality management standards will result in no significant effects to water/hydrology under this alternative.

Impact Significance Criteria

An impact is considered significant if:

A. There will be substantial and adverse increased inundation, sedimentation and/or damage from water forces to the subject property or downstream areas; the project will adversely affect the collection and conveyance of runoff and sediment. The design hydrologic standard is the 100 year storm event with an 85 percent (85%) confidence level.

B. Runoff from the completed project area would adversely impact the designated beneficial uses in the runoff receiving watershed, or would substantially impact Public Agency effects to improve any currently recognized conditions of water quality impairment.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the approved project would increase on-site storm flows by 17-54% over existing Q_{100} levels. Discharge of urban runoff, discharge of post development runoff into on-site natural drainage courses would result in increased erosion and sedimentation. Urban runoff would be directly discharged into on-site natural drainage

courses, resulting in impacts to downstream water quality in Aliso Creek and ultimately the Pacific Ocean.

CUMULATIVE IMPACTS

Implementation of the approved or the proposed project, in conjunction with related projects located within the watershed of both Aliso Creek and Oso Creek, would result in increased flows and increased urban runoff, ultimately discharging into the Pacific Ocean. Cumulative impacts to Oso Creek would also effect surface flows and water quality in San Juan Creek. These related projects are located within several jurisdictions, including the County of Orange, the Cities of Mission Viejo, Lake Forest, Aliso Viejo, Laguna Niguel, San Juan Capistrano, Dana Point and Laguna Beach, and Doheney State Park.

MITIGATION MEASURES

Project Design Features

PDF 3-1 A master drainage concept has been incorporated into the project design to mitigate hydrology impacts to existing OCPDS requirements and standards. The master drainage concept, shown in Exhibit 22 of SEIR 566, p. 4-40, and contained in its entirety in Appendix L of SEIR 566, proposes a series of storm drains, catch basins, inlet/outlet structures, energy dissipators and slope drains to control project drainage.

Standard County Conditions and Mitigation Measures

SC 3-2 Prior to the issuance of any grading permits the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a. Prepare a drainage study determining the effect the proposed development and associated drainage patterns will have on existing drainage facilities.

b. Mitigate either by on-site retardation or by providing improvements appropriately to impacted existing drainage facilities.

SC 3-3 Prior to the issuance of any grading permits the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a. Design and convey construction funds for surface drainage improvements; and

b. Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and

c. Dedicate the associated easements to the County of Orange, if determined necessary.

SC 3-4 Prior to the issuance of any certificates of use and occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, PFRD/Construction Division.

SC 3-5 Prior to the issuance of any grading permit, and if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations.

SC 3-6 Prior to issuance of any building permits, the applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division, including payment of fees and the construction of the necessary facilities.

SC 3-7 Potential for the proposed project to impact the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

Water Quality

SC 3-8 Prior to issuance of building permits, or grading permits, whichever come first, permit applicant shall submit for approval of the Manager, PDS/Subdivision and Grading Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff. This WQMP shall identify at a minimum the routine structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of the BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, lessee, etc.); and, shall reference the location(s) of structural BMPs.

SC 3-9 Prior to the issuance of precise grading permits or building permits, whichever comes first, the applicant shall submit and obtain approval from

the Manager, PDS/Subdivision and Grading Services Division, of a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine, structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association shall reference the location(s) of structural BMPs.

Flood Plain Elevation

SC 3-10 Prior to issuance of any grading permits, the applicant shall submit evidence to the Manager, PDS/Subdivision and Grading Services Division, that the applicant has obtained coverage under the NPDES statewide General Stormwater Permit from the State Water Resources Control Board.

Easements

SC 3-11 Prior to the issuance of any certificates of use and occupancy, the applicant shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange or the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting any of said easements, the subdivider shall furnish a copy of the proposed easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval. Further, a copy of the approved easement shall be furnished to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificate of use and occupancy.

Water/Hydrology Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will generate 160 acres of surface storm water runoff compared to 191 acres for the approved project. The proposed project will also result in less alteration of on-site natural drainages reducing potential for increased urban runoff.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	The conclusion of no unavoidably adverse water/hydrology impacts reached in Certified SEIR 566 remains appropriate for the proposed project.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

4. TRANSPORTATION AND CIRCULATION ANALYSIS

PROJECT IMPACTS

Project access will be off of El Toro Road; an emergency only access at Valley Vista Way will also be provided. The entry street will be designed as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The Collector cross-section should be maintained for approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway. The entry street will be designed with a traffic signal and a southbound left-turn pocket and northbound right-turn lane.

Traffic Impact Modeling

The current modeling source for traffic projections in the study area is the Orange County Transportation Analysis Model (OCTAM), Version 2.5, South County Subarea (SCTM). The Year 2000 and 2020 daily forecasts were projected to include the project, therefore, Year 2000 and 2020 traffic conditions without the project involved subtracting project volumes from the SCTM model volumes.

The Year 2000 and 2020 peak hour forecasts were developed using the previously described daily forecasts, along with peak hour traffic count data collected at each analysis location. Future baseline ADT volumes are shown in SEIR 566. The approved project is projected to generate approximately 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour.

Trip Distribution/Assignment

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the proximity to the regional freeway system, existing/future residential development, other commercial and community facilities. The directional orientation of traffic was determined by evaluating existing and proposed land uses within the community and the Master Plan of Arterial Highways (MPAH).

Existing plus project intersection ICU/LOS is shown in the following table.

EXISTING PLUS PROJECT ICU/LOS

Intersection	PEAK HOUR ICU		PEAK HOUR LOS	
	AM	PM	AM	PM
Santiago Canyon Road (NS) at:				
• Modjeska Canyon Road (EW)	0.87	0.61	D	B
• Ridgeline Road (EW)	0.82	0.60	D	A
El Toro Road (NS) at:				
• Live Oak Canyon Road (EW)	0.78	0.49	C	A
• Ridgeline Road (EW)	0.68	0.62	B	B
• Project Entrance (EW)	0.62	0.57	B	A
• Valley Vista Way (EW)	0.64	0.59	B	A
• Glenn Ranch Road (EW)	0.57	0.69	A	B
Saddleback Ranch Road (NS) at:				
• Glenn Ranch Road (EW)	0.32	0.33	A	A
Marguerite Parkway (NS) at:				
• El Toro Road (EW)	0.34	0.49	A	A
Portola Parkway (NS) at:				
• Glenn Ranch Road (EW)	0.57	0.46	A	A
• Foothill Transportation Corridor (EW)	0.40	0.58	A	A
• El Toro Road (EW)	0.41	0.50	A	A

Trip distribution for this study has been based upon near-term conditions, based upon those highway facilities which are in place. This assignment of traffic from the site to the adjoining roadway system has been based upon the site's trip generation, trip distribution and proposed arterial highway and local street systems. The Projected ADT volumes along El Toro Road in the vicinity of the site do not exceed 30,000 vehicles per day. The projected ADT's along El Toro Road between the Foothill Transportation Corridor (SR-241) and Live Oak Canyon Road are well within the Level of Service "C" volumes for a Primary (four-lane divided) Arterial highway facility.

As shown in the above table, intersections in the vicinity of the site for the previous and proposed project would continue to operate at Level of Service "D" or better during peak hours. A traffic signal is projected to be warranted at the intersection of El Toro Road/Project Entrance for existing plus project traffic conditions.

Year 2000 intersection ICU/LOS projections with and without the project and with and without improvements are shown in Table 15 of the SEIR 566. As shown in that table, all intersections will operate at LOS D or better, except for the intersection of Portola Parkway at Foothill Transportation Corridor, which will operate at LOS E during morning peak hours for the with project/without improvements scenario. A traffic signal would be warranted at the intersection of Santiago Canyon Road at Modjeska Canyon Road for the Year 2000 without project traffic conditions.

Year 2020 intersection ICU/LOS projections with and without the project and with and without improvements are shown in Table 15a of the SEIR 566. As shown in Table 15a several intersections would operate at unacceptable levels of service in Year 2020 without improvements in place. With project improvements in place, all intersections would operate at acceptable levels of service. Improvements would include the ultimate widening of El Toro Road and Santiago Canyon Road to four through travel lanes (two in each direction).

Santiago Canyon Road Analysis

Pursuant to the County of Orange Growth Management Plan (GMP), segments of Santiago Canyon Road are required to function at a Level of Service "C" Capacity improvements along Santiago Canyon Road will be required in conjunction with future growth to achieve Level of Service "C". The Santiago Canyon Road Major Thoroughfare and Bridge Fee Program has been designed to provide up to $34 million in improvements to Santiago Canyon Road from Chapman Avenue to Live Oak Canyon Road. However, the March, 1994 Project Report for improvements to Santiago Canyon Road indicates that the total cost of improvements is approximately $52.3 million for a "limited project" scenario. To address the difference between the ultimate cost of $52.3 million and the fee program allocation of $34 million, the project must provide an additional contribution beyond the payment of normal fees based upon its traffic share. Santiago Canyon Road Project Share Analysis is shown in the following table.

SANTIAGO CANYON ROAD PROJECT SHARE ANALYSIS

Volume Component	Roadway Segment					
	Live Oak Cyn. Rd. to Ridgeline Rd.		Ridgeline Rd. to Modjeska Cyn. Rd.		North of Modjeska Cyn. Rd.	
	AM	PM	AM	PM	AM	PM
Existing Volume (two way)	1,478	1,276	1,640	1,441	1,650	1,375
Project Volume (two way)						
-Residential	40	49	36	49	40	49
-Commercial	3	13	4	10	2	7
Project Increases						
-Residential	2.7%	3.8%	2.2%	3.4%	2.4%	3.6%
-Commercial	0.2%	1.0%	0.2%	0.7%	0.1%	0.5%

In comparison, estimated average daily traffic generation volumes associated with the proposed project for 299 units would be approximately 3,820 trips per day, 2,400 ADT

less than the proposed project. In addition, AM/PM peak hour volumes would be reduced to approximately 42% of the approved project ADT. The resulting impacts to existing level of service values would be substantially less than identified in the Final SEIR for the proposed project.

The proposed 299-unit project will not have a commercial land use component, therefore, it will not have traffic associated with such use.

The discussion on pages 4-44 through 4-83 of SEIR 566 and Appendix F (Traffic Report) of the Certified Final EIR of the Technical Appendices remain appropriate for this project. Because of its reduction in traffic impacts from the recorded tract map and imposition of (41) Project Design Features (PDFs), Standard Conditions (SCs) and additional Mitigation Measures (AMS), the proposed project would not result in any additional negative impacts. Implementation of the proposed project would result in the same improvements to El Toro Road through the existing Road Fee programs, similar to the proposed project.

No significant unavoidable adverse traffic and circulation impacts would occur with the proposed project, following implementation of outlined mitigation measures.

Impact Significance Criteria

The impact evaluation in this analysis focuses on intersection capacity, and uses peak hour intersection capacity utilization (ICU) values to express level of service (LOS). For the year 2010 evaluation, the GMP requires an evaluation of intersections where the project impact is greater than one percent. Satisfactory intersection operation is expressed as LOS D or better (ICU values from 0.00 to 0.90). Therefore, a significant circulation impact would occur if the project caused any intersection to exceed LOS D.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Under existing plus project intersection ICU/LOS conditions, the surrounding circulation would continue to operate at acceptable levels of service. The appropriate tables are contained in the Certified SEIR 566.

Year 2000 intersection conditions, without mitigation measures, would exceed Level of Service "D" significance criteria at the following intersections:

- Santiago Canyon Road at Modjeska Canyon/ Ridgeline Road
- Portola Parkway at Foothill Transportation Corridor
- El Toro Road at Live Oak Canyon Road/Glenn Ranch Road
- Portola Parkway at Glenn Ranch Road

Year 2020 intersection conditions, without mitigation measures, would exceed Level of Service "D" significance criteria at the following intersections:

- Santiago Canyon Road at Modjeska Canyon Road

- Santiago Canyon Road at Ridgeline Road
- El Toro Road at Live Oak Canyon Road
- El Toro Road at Ridgeline Road
- El Toro Road at Project Entrance
- El Toro Road at Glenn Ranch Road
- El Toro Road at Valley Vista Way
- Saddleback Ranch Road at Glenn Ranch Road
- Marguerite Parkway at El Toro Road
- Portola Parkway at Glenn Ranch Road
- Portola Parkway at Foothill Transportation Corridor
- Portola Parkway at El Toro Road

CUMULATIVE IMPACTS

The OCTAM/SCTM Year 2000/2020 model accounts for all cumulative projects within the region which could affect future traffic conditions. Refer to Section 4.4.3 for a complete analysis of cumulative impacts.

MITIGATION MEASURES

Project Design Features

Primary project access will be off of El Toro Road with an emergency access at Valley Vista Way.

PDF 4-1 The on-site circulation system will accommodate project related traffic generation, including design of the entry street as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The entry's cross-section shall be maintained for approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway. Secondary emergency only access will be provided via a gated connection to existing Valley Vista Way. Minimum fire access roadway width of 28 feet shall be required.

PDF 4-2 The entry street will be designed with a traffic signal and a southbound left-turn pocket and northbound right-turn lane. The applicant shall provide a cash deposit for the design and construction of the traffic signal.

PDF 4-3 All weather access to the proposed water tank shall be provided by the applicant. This access shall be designed with a minimum 28 foot width and a maximum grade of 10%.

Standard County Conditions and Mitigation Measures

SC 4-4 Prior to the issuance of any building permits, the applicant shall participate in design, construction, and/or financing of the cost of a traffic signal in the project vicinity in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-5 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Programs listed below, in a manner meeting the approval of the Manager, PFRD/Programs Division.

a. Foothill Circulation Phasing Program

b. Prior to recordation of a final tract map, the subdivider shall enter into an agreement with the County of Orange for participation in a fee program (if adopted by the Board of Supervisors) for implementation of the Foothill/Eastern Transportation Corridor. Said agreement shall provide that:

1. The fee shall be $158.00 per trip end times the County standard trip end generation rate for the type of development proposed, times the number of units (footage) proposed, or the fee payable under the program, whichever is less.

2. Subdivider's obligation to pay fees would arise only after the County establishes the fee program, prior to issuance of building permits.

3. Subdivider's obligation to pay the fee would be extinguished if the fee program were not established within three (3) years of the date of issuance of the first building permit for subject development.

4. Subdivider shall furnish surety bond, letter of credit, money or such other security approved by the Director, PFRDD, to assure payment of the fees related to subject development.

5. This condition shall be void if a trial court of competent jurisdiction, in a final judgement, or an appellate court, if the matter is appealed, sets aside a condition imposed by the County which was substantially the same as said condition.

c. El Toro Road

d. Santiago Canyon Road

SC 4-6 Building permit issuance shall be phased in accordance with the Foothill Circulation Phasing Plan (FCPP) Development Phasing Plan, and shall also be subject to any other Board of Supervisors approved growth management phasing plan pertaining to the timely provision of public services and facilities.

SC 4-7 Building permit issuance shall be phased in accordance with any Board of Supervisors approved Growth Management Phasing Plan pertaining to the timely provision of public services and facilities.

SC 4-8 Prior to the issuance of any grading permits, adequate sight distance shall be provided at all street intersections per Standard Plan 1117, in a manner meeting the approval of the Manager, PFRD/Programs Division. This includes any necessary revisions to the plan such as removing slopes or other encroachments from the limited use area.

SC 4-9 Prior to the issuance of any certificates of use and occupancy, the developer shall construct the approved internal circulation improvements in a manner meeting the approval of the Manager, PFRD/Construction Division. Further, a copy of the approved plans shall be furnished to the Manager, Building Inspection Services, prior to the issuance of any certificates of use and occupancy.

SC 4-10 When monuments exist which control the location of subdivisions, streets or highways, or provide survey control, the monuments shall be located and referenced prior to any street construction or relocation, and shall be reset after construction as required by Section 8771 of the Business and Professions Code, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-11 Prior to issuance of a building permit, the applicant shall pay a cash fair share contribution for the design and construction of improving Santiago Canyon Road from Live Oak Canyon Road to Jamboree Road, in a manner meeting the approval of the Manager, PFRD/Programs Division. In addition, the applicant shall participate in the Santiago Canyon Road Safety Improvement Program.

SC 4-12 Prior to issuance of a building permit, the applicant shall design and construct roadway improvements for El Toro Road including a deceleration lane and a left turn pocket into the project entrance based on a 60 mph minimum design speed in a manner meeting the approval of the Manager, PFRD/Programs Division.

SC 4-13 Prior to issuance of a building permit, the applicant shall provide a cash deposit for the difference in cost of designing and constructing the roadway improvements condition.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, Transportation Planning.

AM 4-14 El Toro Road lane improvements needed at the Project Entrance to serve Year 2000 and 2020 conditions shall be completed in conjunction with development.

AM 4-15 Traffic signing/striping shall be implemented in conjunction with detailed construction plans for the project. Verification of adequate parking shall be analyzed for the project site in conjunction with approval of the site plan.

AM 4-16 The project shall participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program (FCPP), El Toro Road Fee Program and the Santiago Road Fee Program. Both existing traffic patterns and SCTM traffic projections for Years 2000 and 2020 indicate the attraction of Glenn Ranch Road, Portola Parkway, and the Foothill Transportation Corridor (SR-241) for increased traffic volumes in the project study area. North of the Foothill Transportation Corridor, El Toro Road can accommodate projected traffic volumes with the proposed project on four travel lanes divided by a raised or striped median.

Transportation/Circulation Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will generate 3,820 ADT (Average Daily Trips), 2,400 ADT less than the approved project with 6,220 ADT.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	The conclusion of no unavoidably adverse transportation/circulation impacts reached in Certified SEIR 566 remains appropriate for the proposed project.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

5. AIR QUALITY ANALYSIS

PROJECT IMPACTS

The analysis methodology utilizes procedures outlined in the SCAQMD 1993 "CEQA Air Quality Handbook" where appropriate. In areas where more site-specific information was available beyond the default values recommended in the handbook, they were used to supplement the SCAQMD-suggested input parameters.

Vehicular emissions were calculated using the SCAQMD "MAAQI" computer model. Microscale emissions impacts were calculated using one generic run of the CALINE4 computer model adjusted for site-specific traffic volumes, travel speeds and emission data for intersections near Saddleback Meadows potentially affected by project-related traffic.

Many air quality impacts from dispersed mobile sources, i.e., the dominant pollution generators in the basin, often occur hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants

such as ozone. The incremental regional air quality impact of an individual source is generally immeasurably small.

In comparison, implementation of the proposed project for 299 units would result in a reduction in vehicular generated emissions as compared to the previously approved project, and incrementally reduced impacts to regional air quality. Temporary short-term emissions associated with grading and construction operations would decrease slightly over those associated with the previously project, as a result of the reduced grading requirements associated with the landform grading.

All of the discussion on pages 4-83 through 4-101 and Appendix G (Air Quality Assessment) of the SEIR 566 remain adequate for this alternative.

As with any large project located within the South Coast Air Basin, a non-attainment area, not projected to reach attainment until 2010 or later. The proposed project would result in unavoidable adverse cumulative air quality impacts.

Significance Impact Criteria

Criteria for determining the potential significance of new air quality impacts are based on Federal, state and local pollution standards/regulations. Impacts are considered potentially significant if project emissions meet any of the following criteria:

A. If the project is capable of an increase in daily emissions that exceeds the following SCAQMD recommended threshold criteria:

SCAQMD RECOMMENDED SIGNIFICANCE THRESHOLD CRITERIA

Pollutant	Operational Emissions	Construction Emissions
Reactive Organic Gases (ROG)	55 lbs/day	75 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Suspended Particulates (PM_{10})	150 lbs/day	150 lbs/day
Nitrogen Oxides (NO_x)	55 lbs/day	100 lbs/day
Sulphur Oxides (SO_x)	150 lbs/day	150 lbs/day

B. If project emissions increase ambient carbon monoxide levels from below the NAAQS/CAAQS to above these standards.

C. If project emissions result in the accedence of any State, Federal or local ambient standards.

These thresholds do not take into account several important considerations, namely:

1. Emission levels from one large project may exceed thresholds while those from numerous smaller projects with identical emissions might not, even though the regional impact is the same.

2. Large developments have a greater opportunity to effectively implement TCMs because of a greater potential participant pool in trip/VMT diversion programs.

3. Project-related emissions and their regional impact may already have been incorporated into regional growth projections.

4. Emissions generated in or near El Toro have essentially the same regional air quality impact if they were released in a nearby community. If the anticipated demand for residential use is not met at Saddleback Meadows but in some other community, the no-project alternative will have basically the same regional air quality impact.

Additional indicators should be used as screening criteria to evaluate the need for further analysis with respect to air quality. Whenever possible, the project should be evaluated in a quantitative analysis; otherwise a qualitative analysis is appropriate. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation;

- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP;

- Project could generate vehicle trips that cause a CO hot spot;

- Project might have the potential to create or be subjected to objectionable odors;

- Project could have hazardous materials on site and could result in an accidental release of air toxic emissions;

- Project could emit an air toxic contaminant regulated by District rules or that is on a federal or state air toxic list;

- Project could involve disposal of hazardous waste;

- Project could be occupied by sensitive receptors near a facility that emits air toxics or near CO hot spots;

- Project could emit carcinogenic air contaminants that could pose a cancer risk.

Project-Related Sources of Potential Impact

Intensification of land uses in Orange County potentially impacts ambient air quality on two scales of motion. As cars drive throughout Southern California, the small incremental contribution to the basin air pollution burden from any single vehicle is added to that from several million other vehicles. The impact from this project, even if it generates a significant number of new vehicle trips, is very small on a regional scale. Basin-wide air quality impacts are, therefore, addressed in terms of project compatibility with regional air quality plans. If any given project or plan has been properly incorporated into basin-wide growth projections which are the basis for regional air quality/transportation planning, then the basin-wide impact of any proposed development is presumed, by definition, to be less than significant.

Locally, changes in the location of any collection of automotive sources, or changes in the number of vehicles or travel speeds may impact the microscale air quality around any given development site. Traffic increases not only contribute air pollutants in direct proportion to their cumulative percentage of traffic volume growth, but they may slow all existing traffic to slower, more inefficient travel speeds. The development traffic/air quality impact is thus potentially compounded.

Temporary construction activity emissions will occur during project buildout. Such emissions include on-site generation of dust and equipment exhaust, and off-site emissions from construction employee commuting and/or trucks delivering building materials. Because of their temporary nature, air quality impacts from construction have often been considered as individually less than significant. Also, construction activity emissions are difficult to quantify, since the exact type and amount of equipment that will be used or the acreage that may be disturbed on any given day in the future is not known with any reasonable certainty. The emphasis in environmental documents relative to construction activity emission impacts has therefore been to minimize the emissions as fully as possible through comprehensive mitigation even if the precise amount of emissions can not be precisely quantified.

Historical use of agricultural pesticides or herbicides on the project site may have left residues within the soil that may be lofted during site development. Such concern, however, are more common for cultivated fields where DDT or other chlorinated compounds were used than for open rangeland such as the project site.

Construction workers, and to some extent the public at large, could also be exposed to any spores, viruses or other materials in the soil released during site grading. Grading activities are not likely to create any unacceptable health impacts from biological organisms in that organisms such as Valley Fever are not endemic to the El Toro area. Thousands of acres of Orange County have been tilled for many years or graded for new development with minimal evidence of any health impacts from soil-borne pathogens.

Construction Activity Impacts

Dust is normally the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). Because of such variations, regulatory agencies use one universal factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into mid-range average values.

The PM-10 fraction of fugitive dust emissions are predicted to be around 55 pounds per day per acre disturbed in the absence of any dust control measures being applied. Mandatory measures required by South Coast AQMD Rule 403 (Fugitive Dust) are generally assumed to reduce this rate by 50%. Average daily PM-10 emissions during site grading and other disturbance are stated in the SCAQMD Handbook to be 26.4 pounds/ acre. Enhanced dust control procedures such as continual soil wetting, use of supplemental binders, early paving, etc. can theoretically achieve a 90% PM-10 control efficiency, or around 5.3 pounds per day per acre.

With "normal" dust control procedures, daily PM-10 emissions during construction of any individual project would exceed the SCAQMD emissions significance threshold of 150 pounds per day if more than 5.7 acres (150 lb □ 26.4 lb/acre = 5.7 acres) were under simultaneous disturbance. With assumed maximum achievable dust control, up to 28.4 acres (150 □ 5.7 = 28.4) could be under simultaneous disturbance.

The proposed project would be mass graded in one phase, with a total area of disturbance of 211 acres. Project development would exceed the PM-10 emissions significance threshold if a very substantial fraction of the project area were under simultaneous construction. It is highly doubtful, however, that heavy equipment operations will cover more than 25 acres because it would take an armada of equipment moving furiously to cover that much ground on any given day. It is possible, however, that more than 5.7 acres may be under simultaneous disturbance as the significance threshold for standard dust abatement. Enhanced dust control procedures thus need to be implemented during construction. With an effective dust control program implemented during construction, PM-10 impacts can be maintained at a less-than-significant level.

In addition to the fine particulates that remain suspended in the air semi-indefinitely, soil disturbance during construction may release considerable amounts of larger particles that have short atmospheric residence times. These larger particulates are generally inert silicates that are readily filtered out in the upper respiratory tract. They therefore have no adverse health effects. They may, however, create a soiling nuisance as they settle out on parked cars, landscaping foliage or other horizontal surfaces. Clouds of such dust may also locally impair visibility. Soiling nuisance at St. Michael's Abbey

during daytime on-shore flow or in Hidden Hills during nocturnal drainage winds is therefore a possible concern that further prompts the use of efficient dust control.

It is through these larger particulates that the public is aware of a dust problem in a construction area rather than through PM-10. Because such large particles are more readily lofted by turbulence during strong winds, extra dust control or cessation of soil disturbance activities is recommended when wind speeds exceed a heavy particulate lofting threshold of around 25 mph.

Construction also entails use of internal combustion engines to power on-road trucks and off-road mobile, semi-mobile and semi-stationary equipment. Such sources are mainly diesel-powered and are poorly regulated in terms of allowable emission levels. Off-road sources are sometimes not well maintained because there is no regulatory mechanism to enforce efficient combustion as there is for on-road sources. The SCAQMD has calculated the total area under construction that would cause the significance thresholds to be exceeded from construction-related equipment combustion emissions. For single family residences, the threshold is 1.3 million square feet of gross floor area (SCAQMD Handbook, Table 6-2). For 705 units even at 2,630 square feet per unit, total improved footage from simultaneous construction of the entire project will be less than the stated threshold. With the use of a comprehensive dust control program, construction activity air quality impacts in the project vicinity can be maintained at less than significant levels.

Construction activities are concentrated at the construction site, but they also spill over into the adjacent community. Spill-over may be physical spillage, or it may be from off-site congestion effects. Vehicles may track dirt off-site, lane closures may create congestion on public roadways and construction worker vehicles and supply trucks may compete with the general public for sometimes inadequate roadway capacity. Trucks may be left idling near off-site sensitive receptors while waiting to load or unload. Each of these small impacts nevertheless may be cumulatively significant when spread over several years of project area buildout. As with the on-site impacts, a heightened level of impact mitigation will need to be utilized to maintain an overall tolerable level of impact from site activity construction. Housekeeping and construction activity management procedures are identified in the impact mitigation discussion relative to "spill-over" minimization.

Mobile Source Impacts

The bulk of the proposed project's impact will derive from the approximately 5,410 daily trips that will be generated at full site buildout. At a typical trip length of around 9 miles per trip, project implementation would add around 50,000 vehicle miles traveled (VMT) to the basin-wide mobile source emissions burden.

The emissions associated with project buildout can be readily calculated using the SCAQMD's MAAQI computer model. Emissions from project-related travel were calculated for a buildout year of 1997 as the earliest likely project completion year. The

results of these calculations are summarized in the following table. The computer output from the emissions model is contained in Appendix G of this document.

PROJECT-RELATED OPERATIONAL EMISSIONS (POUNDS/DAY)

Land Use	CO	ROG	NO_x	SO_x	PM-10
750 D.U. (Mfg. Housing	1311.8	107.7	149.0	10.3	15.2
20 KSF Commercial	397.3	34.0	43.1	3.2	5.1
Total	1709.1	141.7	192.1	13.5	20.3
SCAQMD	550.0				
Proj. Share of Threshold	311%	55.0	55.0	150.0	150.0
		258%	349%	9%	14%

Source: MAAQI Computer Model (output in Appendix)

- Assuming a 1998 buildout.

- Stationary source emissions are slightly over predicted because project size was artificially modified upward to force MAAQI model trip projections to match the project traffic study forecasts.

Mobile Source Emissions

As shown in Table 19, mobile source emissions for the three primary exhaust pollutants (ROG, CO and NO_x) exceed the SCAQMD significance threshold by a wide margin. This conclusion is generally consistent with the SCAQMD Handbook ... which, in Table 6-2, states that single family residential projects of 166 units or more may have a significant environmental impact. Although the SCAQMD Air Quality Handbook states strongly that such emission levels will have a significant impact on the environment, that finding is not necessarily binding. The SCAQMD is only an advisory agency on this project, such that the Lead Agency must evaluate whether there will actually be a measurable degradation of the regional air quality environment resulting from project implementation. While the proposed project would cause the suggested AQMD emissions threshold to be exceeded by a wide margin, several considerations may mitigate against considering the resulting air quality impact as individually significant as follows:

1. Similar emissions would result from development of the same project in an adjacent jurisdiction or elsewhere in Orange County.

2. The project is consistent with growth assumptions that were used for regional emissions forecasts in the AQMP. The AQMP forecasts regional

attainment of the federal ozone standard by 2010 as long as the rate of predicted regional growth is not exceeded. The Saddleback Meadows project is only a minute part of predicted Orange County growth.

3. The transportation infrastructure is in place to efficiently service the site with good access to multiple transportation modes.

4. The project is located near the Foothill Transportation Corridor that provides good linkage between the Orange County concentrated employment centers and the project site.

The above considerations would allow for the Lead Agency to find that the air quality impact is individually less than significant despite the considerable emissions magnitude. If the emissions total alone were to be judged as sufficient evidence for a finding of significance, then the above considerations should be incorporated into a statement of overriding consideration.

Relative to a finding of (in)significance for the mobile source emissions, it should also be noted that the calculations do not take into account mandatory conversion of the basin travel fleet to methanol or a similar "clean" fuel. Clean fuel market penetration is mandated to be 25 percent by 1997 and then rise steadily into the early 21st Century. Zero emissions vehicle (ZEV) availability is also currently mandated under state law by the end of this decade with accelerated market penetration expected in the first decade of the next century. The assumption of 100 percent use of gasoline and diesel fuel in the analysis thus overstates project regional air quality impacts. However, independent of any reason to reduce the stated burden, traffic from all future growth will contribute significantly to the sub-regional and regional air pollution burden, and, therefore, creates a cumulatively significant air quality impact, regardless of project size. This is a function of growth and the dependence upon the single occupant fossil-fueled vehicle as the primary means of transportation. All growth delays the ultimate attainment of regional clean air standards. This project, within a loose definition of "cumulative projects", would contribute to that impediment to clean air. Regardless of any finding of individual impact significance, the proposed Saddleback Meadows development should be identified as having a cumulatively significant air quality impact.

Because vehicular sources from all combined growth will contribute so substantially to regional emissions total, it correspondingly represents a significant opportunity to reduce that contribution. A reasonable reduction percentage through the implementation of an aggressive transportation system management (TSM) will achieve a measurable reduction when applied to such a large baseline emissions level. If the air quality impact from mobile source emissions is to be maintained at an acceptable level, a viable TSM program is an imperative strategy toward achieving that end.

Orange County has been extensively involved in trip/VMT reduction programs through the trip reduction ordinances (TRO) and various geographically focused transportation management programs. Several countywide programs that monitor city and county

response to AQMP TCMs have shown that the county collectively has exceeded the 1994 trip reduction target of the 1991 AQMP when the county is allocated its fair share of the basin-wide reduction target. While progress toward reducing the dependence on the single occupant vehicle (SOV) is slow, continued progress toward higher average vehicle ridership (AVR) is to be expected during the Saddleback Meadows buildout time frame.

While regional mobile source emissions do not have a very direct impact on local El Toro air quality, the incremental addition of growth-related traffic over a wide area may change microscale air quality distributions. To determine whether future traffic changes will create an adverse air quality impact, a microscale air quality analysis was performed for the traffic analysis grid around the project site. A screening procedure based on the California line source roadway dispersion model CALINE4 was run for a number of traffic scenarios to evaluate any changes due to changes in patterns of growth anticipated as part of the Saddleback Meadows development.

The model combines the results of the traffic analysis with very restrictive dispersion conditions in order to generate a worst-case impact assessment. Carbon monoxide (CO) was used as an indicator of any "hot spot" potential because CO, unlike regional pollutants such as ozone, is directly related to source activity immediately adjacent to the receptor (a primary, unreacted pollutant impact). Calculations were made for an hourly exposure in the immediate vicinity of 10 roadway intersections where baseline traffic volumes were calculated in the traffic analysis.

The results of the microscale impact analysis are summarized in the following table. The values in the following table must be added to any non-local background CO distribution. If one assumes that the maximum level measured near the El Toro and Jeronimo Roads intersection is the regional background, and that the worst-case, one-hour level of 6 ppm observed in 1995 occurs at the exact same hour as any worst-case project impact, then it would take a local contribution of 14 ppm to threaten the one-hour California CO standard of 20 ppm. Microscale hourly CO levels, both without and with the proposed project are forecast to be below the 14 ppm threshold. Combined CO concentrations will thus remain below the California 1-hour CO standard of 20 ppm, and far below the federal standard of 35 ppm.

MICROSCALE AIR QUALITY IMPACT ANALYSIS

(Hourly CO concentration [ppm] above non-local background at edge of each indicated intersection).

	— Existing —		— 2020 —			
Intersection	Base	+Proj.	No. Proj.	Mitig.	W/Proj.	Miti.
Portola Pkwy/Glenn Ranch Road	3.2	3.3	6.5	3.7	6.5	3.8
El Toro Road/Valley Vista Way	1.7	2.4	1.1	0.6	1.2	0.6
Portola Pkwy/El Toro Road	2.9	3.0	5.3	3.0	5.3	3.0
El Toro Road/Glenn Ranch Road	1.7	1.9	1.7	0.4	1.9	0.8
El Toro Road/Live Oak Canyon Road	2.9	3.0	2.1	0.9	2.2	1.0
Santiago Canyon Road/Modjeska Canyon Road	4.7	4.9	2.6	0.9	2.6	0.9
El Toro Road/Ridgeline Road South	2.1	2.3	1.1	0.5	1.5	1.0
Portola Pkwy/Foothill T.C.	2.4	2.4	5.7	2.5	5.7	2.5
Marguerite Pkwy/El Toro Road	1.7	1.9	1.7	1.3	2.0	1.5
Santiago Canyon Road/Ridgeline Road North	2.6	4.5	2.5	1.1	2.6	1.1
Saddleback Ranch Road/Glenn Ranch Road	0.8	0.8	0.9	0.9	1.0	1.2
El Toro Road/Project Entrance	—	2.4	—	—	1.2	0.6

Source: Screening Procedure based upon CALINE4 Model; Caltrans Air Quality Technical Analysis Notes (AQTAN), 1988.

Project-related CO contributions are seen in Table 20 to range from 0.0 to 1.9 ppm. The only increase exceeding 1 ppm occurs at El Toro Road and Ridgeline, where a change in level of service increases queuing times for all vehicles. The average increase at all intersections is 0.2 ppm compared to the most stringent standard of 20 ppm (1.0 percent average change). There are not now, nor will there be with the project, any microscale air pollution "hot spots" at any project area intersections.

Increased area-wide traffic and associated congestion is offset by continued improvements in vehicular CO emissions per average vehicle. Future (2020) CO levels with the proposed project and with anticipated intersection improvements are generally less than in 1997. At no intersection are 2020 "with project" levels greater than in 1997 by no more than 1.0 ppm. SCAQMD Rule 1303 identifies a CO increment of less than 5 percent of the hourly standard of 20 ppm, i.e., 1.0 ppm, to be a de minimis increment requiring no further impact analysis. The findings of the microscale impact assessment are therefore that CO levels under theoretical worst-case conditions do not exceed clean air standards and the Saddleback meadows traffic will add an insignificant amount to the total CO exposure. Microscale impacts are less than significant.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the previous and proposed project prior to the application of mitigation measures would result in significant impacts to short term dust (PM-10) generation, and operational emissions. Potentially significant impacts were identified during construction from dust (PM-10) generated by surface disturbance and from construction equipment operations. Operational emissions will be in excess of thresholds of significance for regionally significant pollutants as identified by the South Coast AQMD. As a minimum, vehicular emissions from project-related traffic should be identified as having a cumulatively significant air quality impact.

CUMULATIVE IMPACTS

Cumulative impacts are evaluated in Section 4.5.3 of SEIR 566. Regardless of any finding of individual impact significance, the proposed project would have an unavoidable adverse cumulative impact on air quality because of the site's location within the South Coast Air Basin.

MITIGATION MEASURES

A number of mitigations, as related to the project, are already incorporated into rules, regulations or ordinances. They are included in the following list of mitigation measures in that compliance mitigates a potentially adverse impact. They are not discretionary measures, however, which a developer can implement or the County of Orange can additionally require since compliance is already assumed in the impact analysis.

Project Design Features

No air quality PDF's have been proposed.

Standard Conditions and Mitigation Measures

SC 5-1 Grading and excavation shall be halted during periods of high winds meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. According to AQP Measure F-4, high winds are defined

as 25 mph or greater. This level occurs only under unusually extreme conditions, such as Santa Ana wind conditions. Notations in the above format, included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

SC 5-2 Prior to issuance of grading permits, the project applicant shall demonstrate measures to ensure compliance with SCAQMD Rule 403, and shall identify the dust suppression measures, such as regular watering, which shall be implemented to reduce emissions during construction and grading in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. This will help reduce the short-term impacts from particles which could result in nuisances that are prohibited by Rule 403.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations:

AM 5-3 As previously noted, no credit was taken for mobile source emissions reductions either from technology improvements (reformulated gasoline, alternative fuels and/or electric cars), nor from transportation behavior modification in response to programs such as South Coast AQMD Reg. XV or by the trip reduction programs. These programs will mitigate the identified significant growth-related cumulative air quality impact to some extent. Because the projected effectiveness of such programs and because the time frame for technology development is uncertain, the degree of possible mitigation can not be quantified with certainty. Similarly, the buildout date for Saddleback Meadows will depend on economic forces that can not be predicted. The following discussion structures the recommended mitigation as comprehensively as possible, but quantification of mitigation effectiveness is speculative at currently known levels of detail.

AM 5-4 Contractors will comply with SCAQMD Rule 403.

AM 5-5 Contractors will utilize measures to prevent dirt from being tracked, washed, blown or otherwise conveyed onto paved roadways, and will wash or sweep the construction access points at El Toro Road on a routine basis on a frequency specified by the County of Orange as well as whenever dirt is visible more than 50 feet from the access point independent of the routine clean-up schedule.

AM 5-6 Trucks hauling dirt on public roads to and from the site will be covered or will maintain a six inch differential between the maximum height of any

hauled material and the top of the haul trailer. Haul truck drivers will water the load prior to leaving the site to prevent soil loss during transport.

AM 5-7 Construction management procedures required by the County of Orange and other jurisdictions shall be implemented. Contractor personnel responsible for supervision and the appropriate actions to be taken for the following measures shall be identified:

- Cessation of activities during a Stage-2 smog episode. Call 1-800-242-4022 for the daily forecast.
- Truck routes and schedules for receipt of materials shall be coordinated with County of Orange staff.
- Where feasible, on-road vehicles and off-road equipment shall be turned off and subsequently restarted if the anticipated duration of idling is expected to exceed five (5) minutes.

AM 5-8 Graded surfaces used for off-road parking, materials lay-down or awaiting future construction shall be stabilized for dust control as needed. Frequently accessed unpaved areas shall be paved as early as possible to minimize dirt trackout to public rights of way.

AM 5-9 Equipment will be maintained in proper tune to prevent visible soot from reducing light transmission through the exhaust stack exit by more than 20 percent for more than three (3) minutes per hour and use low-sulfur fuel as required by SCAQMD regulation.

Flag persons and appropriate traffic control devices will be used as needed to minimize construction activity interference with off-site traffic.

AM 5-11 Implementation of the above measures is expected to maintain construction activity air quality impacts at less than significant levels.

Operational Activities:

- Traffic flow at the project access will be maintained at acceptable levels of service through mitigation measures identified in the project traffic study.
- 220v electric power for future use to charge electric-powered vehicles will be made available in homeowner garages.

AM 5-12 Emissions calculations and the corresponding ambient air quality impact assessment for project-related construction and Saddleback Meadows operations presumed compliance with SCAQMD rules regarding dust

control. The potential for additional emissions reduction beyond the mandatory requirements of existing rules and regulations was evaluated based on Appendix 11 of the SCAQMD Air Quality Handbook which quantifies reduction potential of a variety of project construction and operation emissions control measures.

Dust emissions can be controlled from their 50 percent control assumed for Rule 403 compliance by an additional 50-80 percent of the uncontrolled fraction. The net effective dust control level is therefore 75-90 percent.

Unless the entire project site is under simultaneous massive grading, attaining the optimum level of dust control will maintain dust impacts at less than significant levels. Operational emissions reduction from mobile sources of 5 percent of their non-TCM implementation level can not reduce the substantial emission level to less than the SCAQMD advisory level significance thresholds. A number of secondary considerations were identified, however, that would either allow for a finding of an individually less than significant air quality impact.

Air Quality Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	Yes	The proposed project will result in reduced vehicular generated emissions, thus decreasing regional air quality impacts.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will result in a lower 299 du based emission generation. The proposed project will also have less short-term impacts associated with 8.9 million cubic yards of total grading compared to 11.5 million cubic yards for the approved project.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	Although the proposed project will continue to have a significant impact on air quality, no new adverse impacts will occur.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

6. NOISE ANALYSIS

PROJECT IMPACTS

Three noise concerns are typically identified with land use intensification such as that of the previous or proposed project. Construction activities, especially heavy equipment, will create short-term noise increases near the project site. Upon completion, project-related traffic will cause an incremental increase in area-wide noise levels throughout the El Toro area. Since, however, the number of trips generated by this small housing project is limited, the impact of ambient noise on the project site, rather than project traffic noise impacts on the rest of the community, is the important noise environment concern.

Construction Noise Impacts

Temporary construction noise impacts will vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by site clearing and grading, then by foundation construction, and finally for finish construction. The earth-moving (grading) activities are anticipated to be the noisiest sources during construction with equipment noise ranging from 75 to 90 dB(A) at 50 feet from the source.

Spherically radiating point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The quieter construction noise sources will, therefore, drop below 60 dB by about 300 feet from the source while the loudest sources might still be detectable above the local background beyond 1,000' from the construction area. With hilly topography in the project vicinity, the terrain shielding effects will limit the "noise envelope" around each construction site to considerably less than its theoretical maximum.

Construction noise sources are not strictly relatable to a noise standard because they occur only during selected times and the source strength varies sharply with time. The penalty associated with noise disturbance during quiet hours and the nuisance factor accompanying such disturbance usually leads to time limits on grading activities imposed as conditions on grading permits. The weekday (including Saturday) hours from 7 a.m. to 8 p.m. are the times allowed in the Orange County Noise Ordinance for construction or grading. Division 6 (Sec. 4-6-1, et seq.) of the County Code also contains standard requirements related to the distance separation between construction activities and any occupied dwellings. EMA's "Standard Condition for Approval" N10 requires:

1. All powered equipment operating within 1,000 feet of a dwelling must have a properly operating and maintained muffler.

2. Stockpiling and staging activities must be located as far as practicable from dwellings.

Construction activities in areas of noise-sensitive biotic habitats such as coastal sage scrub containing gnatcatchers may affect bird behavior. Little actual evidence of noise effects on gnatcatchers has been documented, but many wildlife management agencies believe such effects exist. In San Diego County, a standard of 60 dB Leq (one hour average) derived from studies on least Bells Vireo has been applied to gnatcatchers. Use of this standard ignores the fact that a large number of successful breeding pairs have been found directly under the take-off end of major airport runways or next to freeways where peak hourly noise levels reach almost 80 dB. Many San Diego County grading projects have nevertheless been conditioned to avoid the breeding season for possibly noise-sensitive birds, or to erect temporary berms or other buffers to reduce avian noise exposure if seasonal avoidance is not practical.

Development-Related Vehicular Noise Impacts

Long term noise concerns from the increased urbanization of the project area center primarily on mobile source emissions surrounding the project site. These concerns were addressed using the California specific vehicle noise curves (CALVENO) in the federal highway noise prediction model (FHWA-RD-77-108) in a computerized version of the model developed by Caltrans. The model calculates the Leq noise level for a particular reference set of input conditions, and then makes a series of adjustments for site-specific traffic volumes, distances, speeds, or noise barriers.

Project-related traffic may incrementally contribute to the noise exposure of off-site receiver locations. Of the 3780 daily project-generated trips, 75% will travel southwestward on El Toro Road, while the other 25% will turn right at El Toro Road to travel inland. At each subsequent turning opportunity, fractions of each traffic stream will split into different directions and thus dilute any off-site project traffic noise impact. The CNEL at 100 feet from area roadways for various scenarios is shown in the following table.

As shown in the following table, Valley Vista Way and Glenn Ranch Road would experience noise increases exceeding 2 dB noise level increases of 1 dB or greater are considered distinguishable. However, as shown in the table on page 59, the 65 dB CNEL contour will remain within 50 feet of the roadway centerline when project traffic noise is superimposed upon existing noise levels. This offsets any degree of noise impact occurring on these roadways. It should also be noted that in areas of concentrated traffic, such as at the project area, the high noise levels already experienced will substantially mask most project noise contribution. The project is too limited in scope to create a discernible change in off-site traffic noise levels. Noise impact on the ambient acoustic environment is judged to be less than significant.

CNEL (dB[A]) at 100' to CENTERLINE

Link	Existing	Exist. + Project	2000 No Project	2000 W/Project	2020 Cumul.
Santiago Canyon Road:					
• N. of Modjeska Canyon Road	65	65	65	65	67
• Modjeska Canyon Rd. to Ridgeline	65	65	65	66	67
• Ridgeline Rd. to Live Oak Cyn. Rd.	63	64	65	66	67
Modjeska Canyon Road:					
• East of Santiago Cyn. Rd.	53	54	55	55	55
El Toro Road:					
• Ridgeline Road to Project	65	66	65	66	68
• Project to Valley Vista	65	66	65	67	68
• Valley Vista - Glenn Ranch	65	66	65	66	68
• Glenn Ranch Rd. to SR-241	66	66	66	67	68
• SR-241 to Santa Margarita Parkway	66	66	66	67	68
• Marguerite Pkwy to Santa Marg. Pkwy	65	65	66	66	68
• West of Santa Margarita Parkway	67	67	67	67	69
Portola Parkway:					
• North of SR-241	67	67	69	69	71
Santa Margarita Parkway:					
• SR-241 to El Toro Road	66	67	70	70	72
• South of El Toro Road	68	68	69	69	70
Ridgeline Road:					
• Santiago Cyn Rd to Saddleback Ranch	56	57	60	60	61
• Saddleback Ranch Rd. to El Toro Rd	56	57	59	60	60
Saddleback Ranch Road:					
• Ridgeline Rd. to Glenn Ranch Road	61	61	63	63	64
Glenn Ranch Road:					
• Portola Pkwy to Saddleback Rnch Rd	60	62	66	66	68
• Saddleback Ranch Rd. to El Toro Rd	59	61	63	64	67
Live Oak Canyon Road:					
• East of El Toro Road	60	61	62	62	63
Valley Vista Way:					
• East of El Toro Road	53	57	57	59	59
Marguerite Parkway:					

Link	Existing	Exist. + Project	2000 No Project	2000 W/Project	2020 Cumul.
• South of El Toro Road	64	64	67	67	70
Project Access Road:					
• East of El Toro Road	N/A	59	N/A	61	61

N/A = no data available

DISTANCE FROM CENTERLINE TO 65 dB CNEL CONTOUR (feet)

Link	Existing	Exist. + Project	2000 No Project	2000 W/Project	2020 Cumul.
Santiago Canyon Road:					
• N. of Modjeska Canyon Road	100	105	100	105	140
• Modjeska Canyon Rd. to Ridgeline	100	105	100	110	135
• Ridgeline Rd. to Live Oak Cyn. Rd.	80	85	105	110	130
Modjeska Canyon Road:					
• East of Santiago Cyn. Rd.	<50	<50	<50	<50	<50
El Toro Road:					
• Ridgeline Road to Project	100	110	105	115	155
• Project to Valley Vista	110	120	105	122	165
• Valley Vista - Glenn Ranch	100	120	105	125	165
• Glenn Ranch Rd. to SR-241	110	115	120	130	165
• SR-241 to Santa Margarita Parkway	110	115	120	130	165
• Marguerite Pkwy to Santa Marg. Pkwy	100	100	110	120	165
• West of Santa Margarita Parkway	135	140	140	145	180
Portola Parkway:					
• North of SR-241	130	135	190	195	240
Santa Margarita Parkway:					
• SR-241 to El Toro Road	125	125	230	230	295
• South of El Toro Road	150	150	175	175	220
Ridgeline Road:					
• Santiago Cyn Rd to Saddleback Rnch Rd	<50	<50	<50	<50	55
• Saddleback Ranch Rd. to El Toro Rd	<50	<50	<50	<50	50
Saddleback Ranch Road:					
• Ridgeline Rd. to Glenn Ranch Road	55	55	75	75	90
Glenn Ranch Road:					
• Portola Parkway to Saddleback	<50	60	110	120	160

Ranch • Saddleback Ranch Rd. to El Toro Rd	<50	50	70	80	135
Live Oak Canyon Road: • East of El Toro Road	<50	50	65	65	75
Valley Vista Way: • East of El Toro Road	<50	<50	<50	<50	<50
Marguerite Parkway: • South of El Toro Road	90	95	130	135	215
Project Access Road: • East of El Toro Road	N/A	<50	N/A	<50	50

N/A = no data available Source: FHWA-RD-77-108 (Calveno mod.)

The roadway that could affect project on-site noise exposure is El Toro Road. At the maximally exposed lot at around 400 feet from El Toro Road, the traffic noise level will be 63.5 dB CNEL at area buildout. Inclusion of a 60 dB CNEL aircraft contribution increases the noise exposure to 65.0 dB CNEL at the nearest property line. This just meets the County exterior noise standards and requires no extensive noise mitigation. This calculation assumes a semi-infinite line of sight to El Toro Road. Terrain irregularities will reduce the actual noise exposure to well below the worst-case maximum. There, is, therefore, no required exterior noise mitigation because of adequate setback from El Toro Road.

Mitigation in the form of exterior to interior noise attenuation will be required to meet the 45 dB CNEL interior standard for all units within the development since a 62 dB CNEL aircraft noise contour will cover the site as long as El Toro MCAS operations occur. Meeting the interior standard requires the option to close the window. Such ability, in turn, requires that there is supplemental mechanical ventilation to replace the natural draft eliminated by such closure. For new homes in inland valleys of Orange County, air conditioning is normally a standard feature meeting this requirement.

Noise reduction of 20 dB is normally attainable with closed windows, which will reduce any aircraft-related CNEL from 62 to 42 dB. As previously noted, however, CNEL is not the best predictor of noise annoyance due to single event phenomena such as individual overflights. Measured peak noise levels from helicopter operations were 86.5 dB in the center of the project site. A comparable level would likely occur from El Toro jet aircraft operations. A 20 dB attenuation would create a 65+ dB single event level that may be annoying to occupants even with windows closed. Most new developments within the fringes of the El Toro noise impact envelope thus have been built with acoustically enhanced windows.

Use of windows rated with a sound transmission class (STC) of 25 or better is recommended to reduce noise annoyance potential from single events. Such windows reduce single event noise, reduce vibration response (rattle) to aircraft noise often found in single-pane windows and are more energy efficient.

Residential activities may affect adjacent noise-sensitive land uses such as contemplative religious facilities. These facilities are, however, already exposed to single event aircraft noise that is much louder than a distant barking dog, lawnmower or auto horn associated with project residential use. The combination of irregular terrain, distance buffering and normally quiet residential activities are not expected to create a significant noise impact on any adjacent abbey or monastery uses.

In comparison, the proposed project for 299 units still has a number of noise sensitive land uses located in the vicinity of the project site including, St. Michael's Abbey, Ramakrishna Monastery, O'Neill Regional Park and residential land uses. Since the site currently contains no noise generating uses, development of 299 single-family residential dwelling units would result in an increase in noise levels emanating from the project site. This change in noise levels, would be less than the noise expected to be generated by the approved project and could be perceived to be intrusive to surrounding land uses. Noise impacts to St. Michael's Abbey would be incrementally reduced under the proposed project, as compared to the approved project, as a result of relocation of the lots in close proximity to the Abbey on the north side of the spine road and the intervening topography that would be created by the landform grading. The proposed project extends the limits of the upper portion spine road further to the west than the approved project, resulting in residential lots being located within 600 feet of the eastern Abbey property boundary. These noise impacts would be offset by the buffering effects of the landform grading proposed to screen views of the site from surrounding land uses. Impacts to the Ramakrishna Monastery, adjacent residential land uses and O'Neill Regional Park would be substantially reduced in comparison to those created by the approved project.

All of the discussion on pages 4-101 through 4-118 of Certified SEIR 566 and Appendix H (Acoustical Analysis) remain appropriate for the proposed project. The 14 mitigation measures in Certified SEIR 566 remain adequate to effectively attenuate noise impacts.

No significant unavoidable adverse impacts to noise would occur with implementation of the proposed project.

Impact Significance Criteria

According to CEQA guidelines, a significant noise impact is one that substantially increases the ambient noise levels for adjoining or nearby sensitive receptors. For purposes of community noise assessment, changes in noise levels of three dB or greater are typically identified as significant, while changes of less than one dB are not discernable. In the one dB to three dB range, residents sensitive to noise may perceive a slight change.

Transportation related noise standards have been established for noise sensitive land use areas (e.g., residences, schools, hospitals, churches, etc.) in the Orange County Noise Element. These standards are 65 dB CNEL for exterior noise sensitive areas and 45 dB CNEL for interior areas.

Thus, a noise impact will be considered potentially significant if the project results in a noise level increase of greater than three dB, and if that increase, or a lesser increase, causes the County noise standard of 65 dB CNEL to be exceeded.

A significant noise impact would occur if residential units are located within the MCAS El Toro 65 dB CNEL contour or higher.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project would result in short-term construction related impacts to adjacent land uses including: 1) St. Michael's Abbey; 2) Ramakrishna Monastery; 3) Hidden Hills Planned Community.

No on-site or off-site significant noise impacts would occur since 1) on-site residential lots would not be affected by 65 CNEL plus noise levels, 2) off-site roadway CNEL levels would not increase by more than 2 dB at 100 feet from the roadway centerline, and 3) the project site is outside of the MCAS 65 dB CNEL contour.

CUMULATIVE IMPACTS

Cumulative noise impacts are evaluated in Section 4.6.3 of the EIR.

MITIGATION MEASURES

Project Design Features

No PDF mitigation measures are proposed.

Standard County Conditions and Mitigation Measures

SC 6-1 All residential lots and dwellings shall be sound attenuated against present and projected noise which shall be the sum of all noise impacting the project so as not to exceed a composite interior standard of 45 dBA CNEL all habitable rooms and a source specific exterior standard of 65 DBA CNEL in outdoor living areas. Evidence prepared by a County-certified acoustical consultant, that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, shall be submitted as follows:

a. Prior to the issuance of grading permits, as determined by the Manager, PDS/ Building Permit Services Division, the applicant shall submit an acoustical analysis report to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy "B" below.

b. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, PDS/Building Permits Services Division, for approval along with satisfactory evidenced which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

c. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-2 Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permits Services Division, an acoustical analysis report shall be submitted to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy SC 6-3 below.

SC 6-3 Prior to the issuance of any building permits for residential construction, an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards shall be submitted for review and approval to the Manager, PDS/Building Permits Services Division, along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

SC 6-4 Prior to the issuance of any building permits, all freestanding acoustical barriers must be shown on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-5 Prior to the issuance of any certificates of use and occupancy, the developer shall produce evidence acceptable to the Manager, PDS/Building Inspection Services Division, that information stating this property is subject to the overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station) has been provided to the Department of Real Estate of the State of California for inclusion into the Final Subdivision Public Report.

SC 6-6 Prior to the issuance of any certificates of use and occupancy, the applicant shall post aircraft noise impact notification signs in all sales

offices associated with new residential development located within an aircraft 63 dB CNEL contour. The number and location of said signs shall be as approved by the Manager, PDS/Building Permits Services Division.

SC 6-7 Prior to the issuance of any building permit, an aviation easement over this property shall be offered for dedication to the County of Orange in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-8 Prior to the sale, lease or rental of any structure or portion thereof, the applicant/owner shall provide to each prospective purchaser, lessee, or tenant a notice and statement of acknowledgment that the property is subject to overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station). The form and method of distribution of said notice and statement of acknowledgment shall be as approved by the Manager, PDS/Building Permits Services Division.

A. Prior to the issuance of any grading permits, the proponent shall produce evidence acceptable to the Manager, Building Permit, that:

(1) all construction vehicles or equipment, fixed or mobile, operated within 1000 feet of a dwelling shall be equipped with properly operating and maintained mufflers.
(2) All operations shall comply with Orange County "Codified Ordinance Division 6 (Noise Control); and
(3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this requirement.

SC 6-9 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that excavation, grading and other construction-related activities shall be restricted to daytime hours as promulgated in the County's Codified Ordinance Division 6 (Noise Control).

SC 6-10 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that all construction equipment, stationary or mobile, shall be equipped with properly operating and maintained mufflers.

SC 6-11 Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division, that:

a) All construction vehicles or equipment, fixed or mobile, operated within 1,000-feet of a dwelling shall be equipped with properly operating and maintained mufflers.

b) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).

c) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

Notations in the above format, appropriately identified and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations, in manner meeting approval of the Manager, PDS/Building Permits Services Division.

AM 6-12 Prior to the issuance of building permits, all operative windows exceeding 6 sq.ft. of glazing shall be rated SR=25 or greater.

Noise Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will result in less noise impact associated with 3,820 ADT related noise generation compared to 6,220 ADT related noise generation. The proposed project will also result in reduced noise impacts to St. Michael's Abbey, Ramakrishna Monastery, adjacent residential land uses and O'Neill Regional Park.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	The conclusion of no unavoidably adverse noise impacts reached in Certified SEIR 566 remains appropriate for the proposed project.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

7. BIOLOGICAL RESOURCES ANALYSIS

PROJECT IMPACTS

Vegetation communities

Implementation of the approved project for 705 manufactured homes results in the direct removal of 191.4 acres (86 percent) of on-site and 19.8 acres of off-site vegetation as shown in the following table. A total of 30.8 acres (14 percent) of undeveloped land would remain in open space.

IMPACTED VEGETATION (ACRES) SUMMARY

Habitat	Existing	On-site Impacts	Percent Impact (%)	Preserved On-site	Percent Impact (%)	Off-site Impacts	Total
• Venturan-Diegan Transitional Coastal Sage Scrub (disturbed and undisturbed)	67.1	44.2	66	22.9	34	6.1	50.3
• Southern Mixed Chaparral	5.4	1.8	33	3.6	67	1.9	3.7
• Coast Live Oak Woodland (acreage/individuals)	14.5/29	14.0/28	97	0.5/14	3	0.6/5	14.6
• Southern Sycamore Riparian Woodland	8	4	100	0.0	0	2.8	3.3
• Mulefat Scrub	0.5	0.5	97	0.1	3	1.0	3.8
• Ephemeral Pond	2.9	2.8	75	0.2	25	0	0.6
• Annual Grassland	0.8	0.6	97	3.5	3	4.8	126.0
• Agriculture	125.3	121.8	100	0.0	0		
• Disturbed	4.6	4.6	100	0.0	0	2.6	3.7
	1.1	1.1					
TOTAL	222.2	191.4	84	30.8	16	19.8	211.19

Venturan-Diegan Transition Coastal Sage Scrub/NCCP

For the approved project, a total of 50.3 acres of coastal sage scrub would be impacted by implementation of the proposed project. The Natural Communities Conservation Planning (NCCP) program Southern Subregions is currently in preparation and is anticipated to be completed in late 1997 or early 1998. The USFWS/CDFG have developed interim loss procedures for coastal sage scrub habitat, which may occur during preparation of the subregional NCCP. Under the requirements of the Interim Take 4(d) Rule and guidelines, up to 5% of the coastal sage scrub habitat may be impacted during preparation of the southern subregional NCCP. In addition, the following NCCP findings must be made prior to coastal sage scrub impacts:

1) The proposed habitat loss is consistent with the interim loss criteria in the Conservation Guidelines.

   a) The habitat loss does not cumulatively exceed the five percent guideline for loss of CSS within a subregion.
   b) The habitat loss will not preclude connectivity between areas of high habitat values.
   c) The habitat loss will not preclude or prevent the preparation of the subregional NCCP.
   d) The habitat loss has been minimized and mitigated to the maximum extent practicable, in accordance with the Interim Mitigation Criteria of the NCCP Process Guidelines.

2) The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild.

3) The habitat loss is incidental to otherwise lawful activity.

Implementation of the approved project would not result in the cumulative exceedance of the five percent loss of coastal sage scrub in the southern subregion. When added to the current total loss to date of 296 acres (authorized and pending), and 274 acres recorded from non-NCCP authorized projects, the maximum loss of 50.3 acres associated with this project would bring the total loss to 620 acres, which is about 2.4% of the 26,315 acres of coastal sage scrub in the Southern Subregional NCCP program area.[1]

Impacts to the following habitats occur with implementation of the approved project for 705 manufactured homes:

Southern Mixed Chaparral

Approximately 1.8 acres (33 percent) of southern mixed chaparral would be directly impacted on-site by the approved project, and an additional 1.9 acres would be impacted off-site. These impacts are not considered to be significant because of the small amount of impact and the fact that southern mixed chaparral is not considered a sensitive habitat.

Mulefat Scrub and Southern Sycamore Riparian Woodland

Mulefat scrub (3.8 acres) would be impacted where it is associated with three of the ephemeral ponds and in three intermittent streambeds, and southern sycamore riparian woodland (3.3 acres) would be impacted by remedial grading along the western boundary of the site. These impacts would be significant because of the two habitats' values as wildlife habitats and because of their function as wetlands or Waters of the United States. Impacts to these habitats would require permitting as discussed below.

Coast Live Oak Woodland

A total of 14.6 acres (97 percent) of coast live oak woodlands (312 individuals) would be impacted by the approved project, while 0.5 acres (14 individuals) will be preserved. Impacts to oak woodlands are considered significant because of their wildlife values, their function in watershed protection and, in the case of the project site, their function as part of the planned NCCP regional wildlife corridor.

Ephemeral Ponds

0.6 acres of the existing ephemeral ponds would be impacted as a result of project implementation. The 0.6 acres of impact to ephemeral ponds is significant due to the presence of Riverside fairy shrimp. In addition, impacts to portions of this habitat would require permitting as discussed below because of its function as a Waters of the United States.

Agriculture and Annual Grassland

Approximately 4.6 acres (100 percent) of agriculture, 121.79 acres (97 percent) of annual grassland, and 1.1 acres of disturbed land (100 percent) will also be impacted. An additional 4.8 acres of annual grassland and 2.6 acres of disturbed land will be impacted off-site. These impacts are not considered significant because the habitats are not sensitive.

Wetlands and Waters of the United States

Implementation of the approved project would result in impacts to jurisdictional Wetlands/Waters of the United States, as regulated by the U.S. Army Corps of Engineers, summarized in the following table.

IMPACTED WETLANDS/WATERS OF THE UNITED STATES

Type of Habitat	Acres
Wetlands (0.84 ac Mulefat/0.81 ac Sycamore Woodland)	1.65
Non-Wetlands Waters of the U.S. (Intermittent Streams and Man-Made Stock Ponds)	1.78
Total	**3.43**

A Federal Clean Water Act section 404 individual permit issued by the U.S. Army Corps of Engineers would be necessary for direct impacts to 1.65 acres of wetlands (0.84 acre of mulefat scrub and 0.81 acre of southern sycamore riparian woodland) and 1.78 acres of Waters of the United States (intermittent streams and ephemeral ponds). As part of the permitting process, there may be required mitigation measures independent of the requirements of CEQA for impacts to wetlands. Only a portion of the mule fat scrub being impacted was delineated as a wetland (0.84 acres), although the total impact to this community is 3.8 acres. Only a portion of the southern sycamore riparian woodland being impacted was delineated as a wetland (0.81 acres), though the total impact to this community is 3.3 acres (0.5 acres on-site and 2.8 acres off-site). A Streambed Alteration Agreement with CDFG will also be required for the 8.1 acres of impacts to wetland habitats (southern sycamore riparian woodland, mule fat scrub, and ephemeral pond).

Sensitive Plants

Seven of the eight stands of Catalina mariposa lily, including approximately 314 (72 percent) of the estimated 435 individuals, would be eliminated by the approved project. Approximately 121 individuals of the remaining stand would remain in open space. Impacts to this species are not considered to be significant due to its relatively low level of sensitivity, the relatively small population size on-site, and the relatively board distribution of this species throughout its range.

Two of the three stands of intermediate mariposa lily would be totally impacted by the approved project. Only one of the estimated 18 individuals (5 percent) would be directly impacted. Impacts to this species are considered to be adverse but not significant due to the small size of the total site population and, therefore, low regional significance of the on-site population.

Sensitive Animals

The following sensitive animals would be impacted by the approved project for 705 manufactured homes:

Riverside Fairy Shrimp

Impacts to all ponds where fairy shrimp were detected are significant because of the limited distribution of the species, and because it is federally-listed as endangered.

Western Spadefoot Toad

One of the two ponds where larvae were found will be impacted by the approved project. The impact to this species is not significant because of the species low level of sensitivity and because the population on-site is not of regional significance due to its small size.

Orangethroat Whiptail, Coastal Whiptail, Coastal Cactus Wren, and Southern California Rufous-Crowned Sparrow

The orangethroat whiptail and coastal whiptail prefer the open coastal sage scrub and southern mixed chaparral areas of the site. Two orangethroat whiptails and one coastal whiptail were observed, although many more are expected. Approximately 54.0 acres of combined coastal sage scrub and chaparral would be directly impacted (including off-site impacts), leaving 26.5 acres in open space. Ten coastal cactus wrens and twelve southern California rufous-crowned sparrows are distributed throughout the coastal sage scrub on-site and just off-site. Approximately 50.3 acres of potential nesting and foraging habitat (coastal sage scrub) would be impacted on and off-site, including at least portions of areas occupied by all twelve pairs of sparrows and at least six pairs of coastal cactus wrens. Impacts to these four species combined are considered significant but mitigable.

Cooper's Hawk

No direct impacts to known Cooper's hawk nesting habitat are anticipated, because no nests were observed during the surveys. Impacts to foraging habitat on-site are considered adverse but not significant since it is unlikely that any active nests would be disturbed. Should Cooper's hawks breed on the site, the loss of foraging habitat could affect, at most, a portion of one territory of one pair of Cooper's hawks, and this impact would not be considered significant.

Loggerhead shrikes were observed on-site, but it is unknown how many or whether they were breeding on-site. Assuming that they still use the site, the project impacts will still not be significant because of the low sensitivity of this species.

Coastal California Gnatcatcher

Previous field surveys (1993/1994) have determined that on-site coastal sage scrub habitat is not occupied by coastal California gnatcatchers, although current 1997 gnatcatcher surveys have not been completed to USFWS presence/absence protocol. As such, on-site coastal sage scrub habitats must be considered occupied by coastal California gnatcatcher until proven otherwise.

Raptor Foraging Habitat

Impacts to all habitats on-site would total 206.2 acres, while off-site impacts would total 7.0 acres. These impacts would generally add to the loss of raptor foraging areas in the region. However, because of the disturbed nature of most of the present habitat and the restoration of oak woodland and project slopes, sufficient habitat would remain so that these impacts are not considered significant.

Potentially Occurring Species

A list of potentially occurring mammals and additional species are shown in SEIR 566. Additional focused surveys (that is, small mammal trapping) would be required to determine the status of potentially occurring sensitive mammal species on-site. Given the low sensitivity of the potentially occurring species, their distribution throughout other parts of Orange County, and the low amount of anticipated impacts to their respective habitats, these impacts are considered to be adverse but not significant.

Wildlife Movement

Implementation of the approved project would directly impact wildlife movement through the project site, as it does not contain any design features which seek to facilitate wildlife movement. It can not be assumed that wildlife would be able to move through the project site as currently designed. The project, as currently

proposed, may hinder or preclude the preparation of the southern subregional preserve, due to restricted wildlife movement.

The following analysis has been prepared for the current proposal for 299 units:

In comparison, the proposed project for 299 units has been designed in response to the Chairman of the Planning Commission and comments received on the Draft EIR from State and Federal resource agencies and the public pertaining to the location and dimension of the proposed on-site wildlife movement corridor. The biological issues of concern were analyzed for an update of the impacts and for inclusion in the Addendum PA980103 which is the proposed project. The results of the analysis are categorized as, corridor analysis, vegetation impacts, oak tree impacts, and sensitive species impacts. This analysis is based on the Alternative 4 – 299 Lots Development Plan Concept map (February 10, 1998).

Corridor Analysis

The study concludes that an "ideal" corridor provides at least 500 feet of vegetative cover with 250-foot native vegetation buffers. A narrower buffer would be acceptable if development is not visible from the corridor. For corridors of less than 500 feet long, the corridor should not be less than 400 feet in total width. Vegetative or opaque fencing was recommended where there is an interface with the developed areas to reduce visibility.

The wildlife corridor through Saddleback Meadows under the proposed project would traverse the southern and eastern site boundary next to O'Neill Regional Park, then cross through the site in the northern half. It is planned on a west-facing slope on the west side of an existing saddle that is approximately 1,540 feet in elevation above sea level. The narrowest point of the corridor is where it crosses through a 'pinch point' between residential development blocks.

The corridor pinch point for the proposed project is 400 feet wide with 50-foot setbacks on each side and approximately 800 feet long. Most of this pinch point falls within the remedial grading zone, except for a patch approximately 300-feet long and 200-feet wide at the eastern end of the corridor that would remain undisturbed. A 50-foot wide spine road for the development would cross the corridor at grade. The middle strip of the graded portion of the corridor, approximately 200-feet wide, would be restored to native vegetation. The next 200 feet out (100 feet on each side) would be within the non-irrigated fuel modification zone. The outer 100 feet (50 feet on each side) would be landscaped as an irrigated fuel modification zone.

Overall, positive and negative aspects of the corridor's design and revegetation plans for this project's mitigation will increase the viability of the wildlife connectivity through Saddleback Meadows. The corridor, as planned in this alternative, is expected to be wide enough for wildlife movement. Topography on either side of the corridor is conducive to wildlife movement because it coincides with an area of natural canyon

topography. The revegetation within the corridor is expected to provide the necessary cover for wildlife to add to the corridor's viability. The 50-foot wide spine road crossing the corridor is not expected to inhibit wildlife due to the low traffic levels anticipated for this road. This wildlife corridor is expected to function adequately.

Vegetation Impacts

Impacts due to this proposed project would be similar to those for the approved project. The proposed project would impact approximately 160.0 acres of the site, leaving 62.2 acres in undisturbed open space (see following table).

Approximately 45.8 acres of Venturan-Diegan transitional coastal sage scrub (including 2.5 acres off-site), 5.7 acres of coast live oak woodland (175 individual oaks), 0.21 acre of southern sycamore riparian woodland, and 2.01 acres of mule fat scrub will be impacted by the proposed project. In addition, all but two of the manmade stock ponds (0.6 acre) supporting the Riverside fairy shrimp will be directly impacted. One of the preserved ponds is just west of the former ranch while the other is in the southeast corner of the site near O'Neill Canyon. All of the above impacts are significant according to the California Environmental Quality Act. A federal Clean Water Act permit issued by the U.S. Army Corps of Engineers will be necessary for direct impacts to 3.1 acres of wetlands (2.01 acre of mule fat scrub and 0.21 acre of southern sycamore riparian woodland and 0.88 acre of Waters of the U.S. (intermittent streams [0.28 acre] and manmade stock ponds [0.6 acre]). A streambed alteration agreement with the California Department of Fish and Game will also be required for the 2.62 acres of impacts to wetland vegetation.

Oak Tree Impacts

Based on the recent oak tree inventory (SEB 1995), total of 175 oak trees (approximately 59 percent) occur within the remedial grading zone and are considered impacted. A total of 123 oak trees (approximately 41 percent) occur outside the remedial grading zone and are considered preserved.

Sensitive Species Impacts

Eight stands of Catalina mariposa lily and three stands of intermediate mariposa lily fall completely or partially within the impact area of the proposed project. Two stands of Catalina mariposa lily and one stand of intermediate mariposa lily will likely remain to some degree despite the impact. An estimated 259 of the 435 individuals of Catalina mariposa lily will likely be lost, leaving an estimate 176 individuals in two stands in open space or within the non-irrigated fuel modification zones. These impacts are not significant because of the low level of sensitivity of the plant, its generally wide distribution in southern California, and the relatively small population size on site. Two stands of intermediate mariposa lily (9 individuals) will be graded, while one stands (9 individuals) are within the non-irrigated fuel modification zone and are assumed to

remain. This impact is not significant because of the small size of the on-site population.

The orangethroat whiptail, coastal whiptail, at least five cactus wren territories, and at least 10 southern California rufous-crowned sparrow territories would be affected by the loss of 45.8 acres of Venturan-Diegan transitional coastal sage scrub. The western spadefoot occurs on the property in at least two ponds, one of which would be impacted by the proposed project. These impacts are significant but mitigable considered the low level of sensitivity of these observed. Impacts to Cooper's hawks will, therefore, be limited to foraging habitat and are not significant. The 0.6 acre of impacts to manmade stock ponds will impact the Riverside fairy shrimp, and this impact is considered significant.

In accordance with the NCCP, the loss of 45.8 acres of Venturan-Diegan transitional coastal sage scrub due to the project is less than the allowable 5 percent of the total coastal sage scrub in the subregion. According to the NCCP Evaluation Logic Flow Chart, the coastal sage scrub on the project site has intermediate value for long-term conservation because although it is not the most dense coastal sage scrub in the region, it is located next to a higher value district (O'Neill Regional Park).

Saddleback Meadows Proposed Project – 299 Units
Existing Vegetation and Project Impacts

Habitat	Existing Acreage	On-Site Impacts	Percent	Preserved On-Site	Percent	Off-Site Impact
Venturan-Diegan transitional coastal sage scrub (disturbed and undisturbed)	67.1	43.3	65%	23.8	35%	2.5
Coast Live Oak Woodland (acreage/individuals)	14.5/298	5.7/175	39%/ 59%	8.8/123	61% 41%	0.0
Southern Mixed Chaparral	5.4	3.3	61%	2.1	39%	1.25
Southern Sycamore Riparian Woodland	0.5	0.2	40%	0.3	60%	0.01
Mule fat scrub	2.9	2.0	69%	0.9	31%	0.0
Ephemeral Pond	0.8	0.6	75%	0.2	25%	0.0
Annual Grassland	126.4	101.8	81%	24.6	19%	3.0
Agriculture	4.6	3.1	67%	1.5	33%	0.0
TOTAL	222.2	160.0	72%	62.2	28%	6.76

Much of the discussion on pages 4-118 through 4-154 of SEIR 566 and Appendices I, J and K (Biological Assessment, Pak Tree Report and Pond Mitigation Plan) remain appropriate for the proposed project. Imposition of the 14 mitigation measures in the SEIR will mitigate most biological impacts. However, incremental decreases in impacts to coastal sage scrub, oak woodland, ephemeral ponds and the Riverside fairy shrimp would remain significant under this alternative following mitigation.

Impact Significance Criteria

The impact significance criteria listed below, are based on a combination of the following: the Natural Community Conservation Planning (NCCP) information from the County of Orange, including acreages of habitat types proposed to be included in the Southern Subregion reserves; significance criteria, adopted regulations and stated policies of the California Department of Fish and Game, California Resources Agency, U.S. Army Corps of Engineers, and the U.S. Department of the Interior Fish and Wildlife Service.

The criteria listed below have been developed with the knowledge of the habitat resources on the project site. They have been focused to address the project site, including the context of this site within the NCCP Southern Subregion.

The project will have a potentially significant effect if it results in one of the following:

- For the federally listed coastal California gnatcatcher, other NCCP "target and identified species," coastal sage scrub (CSS) habitat, and wildlife movement corridors, the project would impair the ability of the Lead Agency (the County of Orange) to prepare an effective subregional NCCP consistent with the requirements of the Special 4(d) Rule for the coastal California gnatcatcher, FESA Section 10, and the NCCP Planning guidelines.

  The California Resources Agency and Department of Fish and Game have stated their intent to declare that significant impacts for individual projects addressed by a NCCP should be evaluated and determined based on the above standard (consistency with the subregional NCCP). Once a subregional NCCP has been approved by State and Federal agencies, a project whose CSS impacts have been addressed by the approved NCCP should be considered to be mitigated to below a level of significant effect.

- For other species of limited distribution in a subregion, or otherwise of high sensitivity; a) loss of habitat such that the potential benefits of any current or expected process to maintain viable levels of the species, through study, listing or a proposal to list the species would be diminished by a loss of the habitat at this time; b) the loss would be a non-recoverable loss during a time when the species and its habitat are undergoing a rapid decline; or c) loss of a consequential portion of a known population in the subregion.

- Project implementation results in notable net loss of a biotic community that is subject to local, State and/or Federal regulations (e.g., riparian communities) or that is otherwise of very limited occurrence in the subregion (e.g., oak woodland and native grassland).

- Project implementation results in the direct impairment of wildlife movement on a local or regional scale.

SIGNIFICANT IMPACTS OF PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to application of outlined mitigation measures, would result in significant impacts to the following resources:

Sensitive Vegetation

Approved project implementation would result in the direct impact to : 1) 50.3 acres of Venturan-Diegan transitional coastal sage scrub; 2) 14.6 acres of coast live oak woodland; 3) 5.0 acres of southern sycamore riparian woodland; 4) 3.8 acres if mulefat scrub; and 5) 0.6 acres of ephemeral pond.

Sensitive Animals

Implementation of the approved project would result in direct impacts to the Riverside fairy shrimp, a Federal endangered species. In addition, impacts to the orange-throated whiptail, western spadefoot toad, coastal whiptail, coastal cactus wren, and Southern California rufous-crowned sparrow, cooper's hawk, and loggerhead shrike will also result. Based on the absence of a current (1997) coastal California gnatcather survey conducted to USFWS presence/absence survey protocol requirements, impacts to coastal California gnatcatchers must be considered significant until proven otherwise by future surveys.

Wildlife Movement

Implementation of the approved project for 705 units would conflict with existing wildlife movement corridors, as depicted in the Foothill-Trabuco Specific Plan, Exhibit 52 of SEIR 566, p. 4-132, and is identified in Section 4.7.1 of SEIR 566.

CUMULATIVE IMPACTS

Contributions to Cumulatively Significant Impacts

Considered alone, many impacts associated with implementation of a single project may not meet the criteria of significance, either because project implementation impacts a relatively small area or because the resources impacted are only moderately sensitive; many candidates for federal listing fall under this category. However, when considered in the context of past and ongoing development of the region, a single project's impacts can be seen as a contribution to cumulatively significant effects.

In light of the fact that the Southern Subregional NCCP preserve has not been finalized, cumulative impacts to coastal sage scrub habitat are considered significant.

- Implementation of the proposed project in conjunction with other projects would result in cumulative impacts to oak woodland and sycamore riparian habitat.

- Implementation of the proposed project would contribute to cumulatively significant impacts to wildlife movement in the vicinity of the proposed project.

- Implementation of the proposed project would contribute significant impacts to the coastal California gnatcatcher, until such time as future field surveys, conducted to 1997 USFWS presence/absence protocol, demonstrates that on-site coastal sage scrub habitat is not occupied by California gnatcatchers.

- Implementation of the proposed project would contribute to cumulatively significant impacts to Riverside fairy shrimp.

- Implementation of the proposed project would contribute to cumulatively significant impacts to coast live oak and southern sycamore/riparian woodland.

- Implementation of the proposed project would contribute to cumulatively significant impacts the completion of the NCCP Southern Subregional reserve.

MITIGATION MEASURES

Conceptual Mitigation Program

The following conceptual mitigation program has been developed based upon input from the USFWS and CDFG during the scoping and public review processes for EIR 561 and EIR 566.

Impacts to Venturan-Diegan transitional coastal sage scrub habitat will require a mitigation ratio of 1.5:1 because although it is ranked as intermediate value habitat (under the NCCP), in its current condition much of the habitat being impacted is fragmented, is at least partially disturbed, and it may not support the coastal California gnatcatcher. According to the NCCP Evaluation Logic Flow Chart, the coastal sage scrub on the project site is considered intermediate value for long-term conservation because although it is not the most dense coastal sage scrub in the region, it is located next to a higher value district (O'Neill Regional Park). Impacts to mulefat scrub will be mitigated at 1:1 because of the poor quality of the existing habitat, and because it is surrounded by agriculture and annual grassland habitats. Southern sycamore riparian woodland will be mitigated at a ratio of 3:1 because of its high habitat quality. Oak woodland habitat will be mitigated at a ratio of 1:1, due to its moderate habitat values. Ephemeral pond habitat will also need to be replaced at a 2:1 ratio. Refer to the following table for a summary of the biological mitigation requirements.

CONCEPTUAL BIOLOGICAL MITIGATION PLAN REQUIREMENTS APPROVED PROJECT (705 UNITS)

Habitat	Sensitive Habitat Impact Acreage	Mitigation Ratio	Mitigation Acreage
Venturan-Diegan Coastal Sage Scrub	50.3	1.5:1	75.5 Acres
Mulefat Scrub	3.8	1:1	3.8 Acres
Southern Sycamore Riparian Woodland	3.3	3:1	9.9 Acres
Oak Woodland	14.6	1:1	14.6 Acres
Ephemeral Pond	0.6	2:1	1.2 Acres
Total	**72.6**		**105.0 Acres**

The biological resource mitigation measure outlined above and summarized in Table 30 of Certified SEIR 566, cannot be implemented on-site for the approved project and must be implemented off-site, however, the proposed 299-unit project will allow for most if not all mitigation to occur on-site. Specific standard county conditions and mitigation measures have been developed to ensure that a comprehensive biological resources mitigation program is devised and approved by the County of Orange, in conjunction with USFWS and CDFG prior to the issuance of grading permits.

Project Design Features

No PDFs proposed.

Standard County Conditions and Mitigation Measures

SC 7-1 Pursuant to Section 711.4 of the Fish and Game Code, the applicant shall comply with the requirements of AB 3158, prior to the filing of the Notice of Determination for the project, in a manner meeting the approval of the Manager, PDS/Environmental and Project Planning Services Division.

SC 7-2 Prior to the issuance of any grading permits, the applicant shall obtain a Streambed Alteration Agreement covering the affected water courses and wetland areas within the proposed project area from the California Department of Fish and Game. A 1603 Streambed Application has been submitted to CDFG. All Streambed alteration activities shall be carried out in accord with the requirements of an approved Streambed Alteration Agreement.

SC 7-3 Prior to the issuance of any grading permits, the applicant shall obtain the necessary individual or nationwide permit (pursuant to Section 404 of the Federal Clean Water Act) covering all affected wetland areas from the U.S. Army Corps of Engineers, Los Angeles District. All wetland areas shall be subject to the specifications of the 404 permit as determined by the Corps of Engineers. A copy of the 404 permit shall be submitted with the first grading permit application for the proposed project to the Manager, PDS/Subdivision and Grading Services Division.

SC 7-4 Prior to the issuance of a grading permit, as required by participation in the Natural Community Conservation Planning/Coastal Sage Scrub (NCCP) agreement signed by the County on May 1, 1992, the project applicant shall provide an accounting summary, in acres or portions thereof, of coastal sage scrub scheduled to be impacted by removal through grading in a manner meeting the approval of the Administrator, Planning & Zoning. (See Section 4.7.3.)

SC 7-5 Prior to the issuance of a grading permit, the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the U.S. Fish and Wildlife Service, in a manner meeting the approval of the Administrator, Planning & Zoning and Manager, PDS/Grading Services Division, in consultation with the Administrator, Planning & Zoning.

SC 7-6 Notwithstanding the tentative map, no grading shall occur within the Natural Community Conservation Plan (NCCP) enrolled area except as in a manner meeting the approval of the Administrator, Planning and Zoning.

SC 7-7 Prior to the issuance of any grading permit, approval of any activity that involves removal of any native vegetation from subject site including clearing, grubbing, mowing, discing, trenching, grading, fuel modification, or other related construction-related activities, the applicant shall obtain written proof from the U.S. Fish and Wildlife Service that said activity complies with the Federal Endangered Species Act. This evidence shall be submitted to the Manager, PDS/Subdivision and Grading Services Division, for review and approval, in consultation with the Administrator, Planning and Zoning.

SC 7-8 Prior to the issuance of grading permits the applicant shall submit a landscape and tree preservation plan to the Manager, PFRD/Harbors Beaches and Parks Division, for review and approval in accordance with the following guidelines:

A. To the maximum extent feasible, all existing native and exotic trees and other significant vegetation shall be preserved in conjunction with any development activity.

B. A tree preservation plan shall be prepared by a landscape architect for all development projects which identifies the location, size and species of all trees having a trunk diameter of 5 inches or greater (measured at four and one-half feet above ground level) and shrubs having a trunk or branch diameter of 3 inches or greater. The plan shall show which plants are proposed for removal and where transplanted and/or replacement plants will be located. Tree preservation plans shall be approved prior to issuance of grading permits, or where grading permits are not required, prior to issuance of building permits.

C. Trees removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement by a combination of 1 and 15-gallon plants at a minimum ratio of 5:1. The following sliding scale shall also be used for trees to determine if more than the minimum number of replacement trees are required.

Tree Replacement Scale

Trunk Diameter (inches) of Tree Removed At 4½ Feet Above Ground Level	Total Number of Replacement
5 to 11	5 (1-15 gal / 4-1 gal)
12 to 17	7 (1-15 gal / 6-1 gal)
18 to 23	10 (2-15 gal / 8-1 gal)
24 to 35	12 (2-15 gal / 10-1 gal

Any oak exceeding 35 inches in diameter should be preserved, transplanted or replaced in accordance with the provisions outlined in Section E of the mitigation measure. In the event that all required replacement trees will not fit on the property, increase in container size will be considered in conjunction with reductions in replacement quality.

D. Significant shrubs removed in accordance with an approved tree preservation plan should be replaced by a combination of transplanting to another location on the subject property and/or replacement by 5-gallon plants at a minimum ration of 3:1.

E. All other plants not specified in Guidelines C and D above that are removed in accordance with an approved tree preservation plan should be either transplanted to another location on the subject property or replaced by 15-gallon plants for trees and 5-gallon plants for shrubs at a minimum ration of 1:1. The two 35" + oak trees impacted by project implementation, will be mitigated by an enhanced replacement ratio (5-15 gal/10-1 gal) to

the satisfaction of the Manager, PFRD/Harbors Beaches and Parks Division.

F. All transplanting of trees shall be performed by an experienced nursery or other landscape contractor, who shall care for the trees for at least six months after transplanting.

G. Prior to issuance of final certificates of use and occupancy, all transplanted or replacement trees and shrubs shall be installed in accordance with the tree preservation plan.

H. Oak trees shall not be subjected to increased runoff from irrigation systems, impermeable surfaces, storm drain discharge, etc.

I. Natural drainage courses and natural grades in proximity of, and providing seasonal irrigation to oak trees shall not be altered.

J. Grading, placement of fill, storage of building materials and heavy equipment, structural development, and hardscape (e.g., roads, sidewalks, patio slabs and pool decks) shall be prohibited within the drip line (outer edge of branches) of any tree. During grading and construction operations, all trees shall be temporarily fenced off with chain link fencing to protect such areas.

K. Use of pre-emergent weed killers shall be prohibited within 10 feet of the drip line of any individual tree and within any natural drainage course which seasonally irrigates trees.

L. Use of soil sterilizes shall be prohibited because they kill everything in the soil.

SC 7-9 Specify areas/lots to be dedicated or irrevocably offered to the County in fee or easement for landscape maintenance purposes, scenic or resource preservation purposes or resource replacement shall be landscaped, equipped for irrigation, and improved in accordance with an approved plan as stated below:

a) Preliminary Plan -An agreement shall be entered into and financial security posed guaranteeing landscape improvements and the maintenance thereof based on a preliminary landscape plan showing major plant material and uses, with a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Said plan shall take into account the previously approved landscape plan for AP 95-7, the EMA Standard Plans for landscape areas,

adopted plant palette guides, applicable scenic and Specific Plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).

b) Detailed Plan - Prior to the issuance of any building permit(s), a detailed landscape plan shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Detailed plans shall show the detailed irrigation and landscaping design.

c) Installation Certification - Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, said improvements shall be installed and shall be certified by a licensed landscape architect or licensed landscape contractor, as required, as having been installed in accordance with the approved detailed plans. Said certification, including an irrigation management report for each landscape irrigation system, and any other required implementation report determined applicable, shall be furnished in writing to the Manager, PFR/Construction Division, and the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use and occupancy.

SC 7-10 Prior to the issuance of precise grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), EMA Standard Plans, area plan 95-7, scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed by the future homeowners association and be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division.

SC 7-11 Prior to the issuance of grading permits, the applicant shall provide additional evidence that the on-site coastal sage scrub habitat is not occupied by California gnatcatchers, in accordance with current USFWS protocol (7 in season/9 out of season pass surveys) to the satisfaction of the USFWS and the Administrator, Planning and Zoning. Should occupied coastal sage scrub habitat be identified on-site by the surveys consultation shall be initiated with the USFWS, and a coastal sage scrub/gnatcatcher

mitigation plan shall be developed to the satisfaction of the USFWS and the Administrator, Planning and Zoning prior to the issuance of grading permits.

SC 7-12 Prior to the issuance of grading permits, the applicant shall provide assurances to the satisfaction of the County NCCP coordinator and the Administrator, Planning and Zoning, that the proposed project will participate in the NCCP planning process and not preclude the finalization of the Southern Subregional reserve component of the NCCP.

SC 7-13 Prior to the issuance of grading permits, the applicant shall prepare a relocation and establishment mitigation plan, designed to mitigate impacts to Riverside fairy shrimp/pond habitat, wetlands, and southern sycamore woodland, to the satisfaction of the Administrator, Planning and Zoning, in consultation with USFWS and CDFG. Mitigation shall consider on-site as well as off-site mitigation options, as well as, established fee programs.

Additional Mitigation Recommendations

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner acceptable to the Manager, Environmental and Project Planning Services Division, in consultation with the Manager, PFRD/Harbors Beaches & Parks Division.

AM 7-14 The following recommendations are proposed to further minimize some of the proposed impacts.

- Where possible, bulbs of individual Catalina Mariposa Lily and Intermediate Mariposa Lily that are to be impacted shall be dug up and transplanted to a suitable habitat with similar soil, slope exposure, etc.

- Lighting within development projects adjacent to conserved habitat should be selectively placed, shielded, and directed away from that habitat. In addition, lighting from homes abutting conserved habitat should be screened with vegetation, and large spotlight-type lighting that may affect conserved habitat should be prohibited. These lighting restrictions should be incorporated into the project's CC&Rs.

Biological Resources Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will result in 160.0 acres of impact on-site (included in this overall impact area, the proposed project will result in disturbance to 45.8 acres Venturan-Diegan transitional coastal sage scrub; 5.7 acres coast live oak woodland; 0.21 acre southern sycamore riparian woodland; and 2.01 acres of mule fat scrub) compared to 191 acres of impact for the approved project (included in this overall impact area, the proposed project will result in disturbance to 50.3 acres Venturan-Diegan transitional coastal sage scrub; 14.6 acres coast live oak woodland). The project will also result in reduced impact to on-site plant communities/habitats, and it will consist of dual wildlife movement corridor.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	Although the proposed project will continue to have a significant impact on biological resources, no new adverse impacts will occur.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

8. AESTHETICS — ANALYSIS

PROJECT IMPACTS

Substantial alteration of the existing on-site aesthetic visual resources will occur with the development of the approved project (705 units). Viewshed impacts will be primarily due to substantial direct and remedial site grading and the subsequent construction of 705 manufactured single family residences on site. Grading volumes are estimated to

total approximately 11.5 million cubic yards (2.6 million cubic yards of conventional and 8.9 million cubic yards of remedial). Significant change to existing landforms, due to the substantial cut and fill required to create flat buildable pad areas from the steep rolling terrain on site, will generate permanent alteration of the natural topography and have an associated aesthetic impact on the site's viewshed. Visual impact is not limited to topographic alteration, but will also include loss of a portion of an oak woodland, on-site ponds, and annual grasslands. Approximately 211.12 acres of the site (191.4 on-site and 19.8 off-site) will be altered or disturbed by project development. 14% of the site will remain in undisturbed open space.

In addition, site development will change the surrounding property's viewshed of the site from essentially undisturbed natural rolling rangeland and oak woodland to an urban environment. Although approximately 14% of the site will be retained in natural open space, the predominant view will be of man-made slopes, roads, manufactured single family residences, and planted landscaping. This impact is permanent and unavoidable with site development.

The approved project proposes development of 705 manufactured residential units on minimum 2,630 square foot pads. This intensity and scale of development could be perceived as aesthetically objectionable by nearby residents.

Another potential impact of site development is glare from night lighting of project streets and residences. The site currently generates no night lighting. As a result, adjacent land uses experience a more natural night sky and view of the site. Glare from night lighting may impact the ability to view stars and the visual aesthetic resource of a naturally lit environment.

Potential impacts to visual and aesthetic site resources have been evaluated from the following specific locations listed below. Exhibits 60 - 62 in the SEIR 566, pp. 4-165-166, show computer generated post development views and cross-sections from the following locations:

Saint Michael's Abbey and School - Located northwest and adjacent to the project site. Views of the project site from the main abbey compound are generally screened by intervening buildings on the abbey property, mature vegetation and topography (see Exhibit 61 of SEIR 566, p. 4-166). Proposed residences would be located approximately 300 feet from existing Abbey facility. A significant portion of the proposed development will be visible however, from other parts of the abbey grounds including the pool, recreation field and "Stations of the Cross" knoll. Views of the project from these various locations on the abbey grounds are considered potentially significant. Glare from night lighting will directly impact this property due to its proximity and its lower elevation from the project site allowing street and residence lighting to shine directly down on the abbey property.

Ramakrishna Monastery - The Ramakrishna Monastery has occupied this location directly adjacent to the southeast portion of the project site since 1946. Normally, the

monastery is occupied by seven resident monks and an occasional small number of short term visitors. Due to the contemplative purposes for which this facility exists, potential visual impact of site development may be particularly intrusive to monastery residents. Existing on site vegetation near the main monastery buildings and revegetation and common area landscaping of the project's graded slopes may provide additional screening of the site from the monastery property. Nevertheless, it appears that complete site screening will not be possible due to the project site's higher elevation and its proximity to the monastery grounds. Therefore, even with extensive project site landscaping a significant number of residences will remain visible from the monastery, particularly the shrine trail surrounding the monastery property.

Night lighting glare may also have a significant aesthetic impact on monastery residents from both street and normal residence lighting. Resident monks have indicated that night lighting glare from recently constructed residential development in the vicinity has already negatively impacted the quality of life at their facility.

A church and two dwellings are located immediately north of the Ramakrishna Monastery, and would be impacted to the same degree as the outlying areas of the monastery.

O'Neill Regional Park - Residential elevations and man-made slopes located near the south project property line will be visible to the public from the Live Oak Trail within O'Neill Regional Park. The trail view points are located over ½ mile approximately 2,900 feet from the project boundary. Though project views will be far enough away so that elevation details are not apparent, the mere visual presence of a large number of homes from a wilderness hiking trail is considered a significant aesthetic impact.

Portola Hills - Portola Hills is a 2,200 unit planned community located directly west of the project site, across El Toro Road at a similar elevation. Views of the project site will be extensive as indicated in the viewshed analysis, and will encompass the entire proposed project and off site water tank (see Exhibit 60 of SEIR 566, p. 4-165). Due to Portola Hills' elevation, mitigation of potential visual impacts to a level of insignificance is not possible.

Portola Hills residents night views of the site are currently of a dark naturally lit area. Subsequent project buildout will change their view of natural open space to a view of an artificially lighted urban hillside development. As with all aesthetic impacts, some individuals may find this night lighting change to be a negative impact, while others may consider night lighting when viewed from a higher elevation to be aesthetically pleasing.

Hidden Hills - Hidden Hills is located directly adjacent to the southwest portion of the project site. Viewshed analysis indicates that residents of this tract will have significant uphill view of residences constructed along the southern boundary of the proposed project (see Exhibit 62 of SEIR 566, p. 4-167). This visual impact is considered potentially significant because of the close proximity of the proposed project to existing residences built at a lower elevation. This proximity between the two tracts may

generate a feeling to existing residents that Saddleback Meadow homes are looming over their Hidden Hills tract, creating a sense of crowding and associated loss of privacy.

El Toro Road - The proposed project will be visible to motorists on El Toro Road and to bicyclists, equestrians and hikers utilizing the regional trail located parallel to El Toro Road and Aliso Creek west of the project site.

Live Oak Canyon Road - A small portion of the upper portions of the project will be visible from the intersection of Live Oak Canyon Road and Harris Truck Trail. Views of the project site from Live Oak Canyon Road north of the site are partially screened by intervening topography.

In comparison, the proposed project for 299 units, as with the approved project, would substantially alter the existing topography and visual character of the project site. The land form/contour grading, berming, and wildlife corridor system included in the proposed project would help to break up the long linear massing of housing which would result with implementation of the proposed project and create areas of housing separated by 150 to 500 foot stretches of open space. Open space corridors within the design of the proposed project are larger and more significant than those of the approved project. In addition, overall aesthetic impacts to surrounding land uses would be reduced under the proposed project, as compared to the approved project, due to the extensive use of landform grading along the visually prominent portions of the development edge. Further, the approved project illustrated "soldiering" or "linear" design techniques which did not allow any relief for landscape elements.

Visual impacts to St. Michael's Abbey would be substantially reduced under this project as compared to the proposed project due to the relocation of residential lots north of the on-site spine road, extensive landform grading and implementation of a trail head/staging area. Also, the proposed project has no development in the near foreground view from St. Michael's Abbey. View impacts of the project site from the Ramakrishna Monastery would be reduced as compared with the approved project by implementation of the berming/contour grading, the wildlife corridor system and associated open space areas, and through the elimination of several loffel walls which would reduce the height and intensity of adjacent manufactured slopes. The wildlife corridor would replace manufactured slope, housing and associated lighting with natural and revegetated open space. In addition, the proposed project incorporates manufactured knolls strategically placed to assist in the screening of proposed development. The landscape concept will work in concert with the landform grading and berming to further help screen and filter the project from view. Furthermore, specialized grading proposed under this project to preserve the highest quality on-site ephemeral pond would create substantially less manufactured slope adjacent to the Monastery. (Refer to Exhibits 6 to 8 of this document for computer modeled visual analysis).

Most of the discussion on pages 4-154 through 4-173 of Certified SEIR 566 remain appropriate for the proposed project. The 19 mitigation measures in the SEIR will reduce most impacts to below a level of significance. However, significant viewshed impacts to the Ramakrishna Monastery and O'Neill Regional Park would remain significant under the proposed project.

Impact Significance Criteria

The determination of whether an aesthetic impact is significant or not is subjective, and there is no universally adopted standard or set of criteria for this issue. The impact significance criteria listed below are based on the CEQA Guidelines, Appendix G, and the Foothill Trabuco Specific Plan Development and Design Guidelines.

The project will have a potentially significant aesthetic impact if it results in one of the following:

- Degradation of, or significant interference with, the public's enjoyment of the site's existing visual resources (from designated public open space or public roads).
- Substantial alteration of the site's natural character, including extensive removal/changes or fill of slopes, canyons, rock outcroppings and/or vegetation.
- Impacts visual resources of "Major Ridgelines/Major Rock Outcroppings" as identified in the Foothill-Trabuco Specific Plan.
- Elimination of a unique geologic or physical landform feature.
- Areas where the elevation change along the length of a graded slope meets or exceeds 100 feet.
- Areas where the depth of cut or fill meets or exceeds 50 feet.
- Elimination or modification of a significant landform feature that is part of a larger, contiguous, unmodified off-site landform feature.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to application of mitigation measures, would result in significant impacts to the following surrounding land uses:

- O'Neill Regional Park
- Ramakrishna Monastery
- St. Michael's Abbey

These significant impacts would be related to the following visible project features: 1) grading, including cut and fill slopes; 2) proposed residences 3) drainage improvements; 4) native vegetation removal; and 5) night lighting.

CUMULATIVE IMPACTS

The proposed Saddleback Meadows project would result in the encroachment of large scale residential development into a rural transition area that is currently undeveloped. The project will contribute to the cumulative impacts to existing rural and natural open space, and to a continuing urbanization of foothill areas in South Orange County.

MITIGATION MEASURES

Project Design Features

PDF 8-1 All public utilities shall be situated underground.

PDF 8-2 Where feasible, drainage devices (terrace drains, benches, and intervening terraces) shall be bermed and placed in swales.

PDF 8-3 Concrete drainage swales and other similar drainage infrastructure shall be tinted with an appropriate earth tone to assist in concealing them from surrounding view.

PDF 8-4 The water tank shall be bermed, landscaped and painted to blend with the surrounding environment.

Standard County Conditions and Mitigation Measures

SC 8-5 Prior to the issuance of any building permits, an agreement shall be entered into and financial security posted guaranteeing landscape improvements and the maintenance thereof based upon a detailed landscape plan showing landscape design and irrigation with a cost estimate for the landscape improvements approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Harbors Beaches & Parks Division. Said plan shall take into account previously approved landscape plan(s), PFRDD Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, water conservation measures contained in Board Resolutions 90-487 (Water Conservation Measures), and 90-1341 (Water Conservation Implementation Plan).

SC 8-6 Prior to the issuance of preliminary grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary

landscape plan(s), PFRDD Standard Plans, area plan 95-7 scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolutions 90-487 (Water Conservation Measures) and 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed and approved by Manager, PDS/Building Permits Services Division, Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Harbors Beaches & Parks Division, and Manager, PDS/ Environmental and Projects Planning Services Division.

SC 8-7 Prior to the issuance of certificates of use and occupancy and release of financial security, applicant shall install the approved landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, as applicable, certify that it was installed in accordance with the certified plan. Said certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, shall be furnished in writing to the Manager, Building Inspection Services, prior to the issuance of any certificates of use and occupancy.

SC 8-8 Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations:

AM 8-9 Prior to issuance of any grading permit, the project proponent shall provide evidence to the Manager, PDS/Subdivision and Grading Services Division indicating that graded areas will be compatible with natural landform characteristics to the greatest extent possible. Criteria to achieve the desired effect shall include:

a) Recontouring the existing landforms to provide a smooth and gradual transition between graded slopes and existing grade while preserving the basic topographic character of the site.

b) Variation and combination of slopes 2:1, 3:1 and 4:1 to create a more natural character wherever possible within the graded areas.

c) Attempting to balance cut and fill within the overall project area to eliminate off-site and import/export related grading operations.

d) Obscuring slope drainage structures with a variety of plant materials.

e) Preservation of visual opportunities from hillsides by providing for panoramic views from selected locations (e.g., view corridors, sensitive landscape placement).

AM 8-10 Manufactured slopes shall be replanted with vegetation native to the site to blend the new topography with existing natural on site vegetation, immediately following precise grading operations.

AM 8-11 Fuel modification areas shall be planted with fire resistant vegetation.

AM 8-12 Use of the California Sycamore or other species similar to trees currently existing on-site shall be used in appropriate common area and street landscape locations where feasible.

AM 8-13 Common area landscaping and habitat transition zones shall utilize the FTSP recommended plant palette (Appendix H) when selecting plant material.

AM 8-14 Slope landscaping shall occur as soon as feasible after grading and be maintained by the applicant until a homeowners association has been organized and assumes long term maintenance responsibility.

Light and Glare

AM 8-15 Prior to issuance of any certificate of use and/or occupancy, the potentially adverse impact of night lighting on surrounding land use shall be mitigated to the satisfaction of the Manager, PDS/Subdivision and Grading Services Division by the following measures:

a) Street lights shall only be installed at intersections and as required to insure public safety.

b) Low intensity halogen street lamps shall be used.

b) Street lights shall be shielded to direct the light beam downward and to avoid direct glare into open space areas and adjacent property.

Aesthetics Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will result in reduced grading related aesthetic impacts, and it will also include major landform screening.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	Although the proposed project will continue to have a significant impact on aesthetics, no new adverse impacts will occur.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

9. CULTURAL / SCIENTIFIC RESOURCES ANALYSIS

PROJECT IMPACTS

Archaeology

A number of the known archeological sites on the subject property were initially found to contain a high density of artifact deposits which for the most part have been removed by previous site researchers. Some of these sites may still contain significant deposits below ground. Without mitigation, potentially culturally significant sites may be destroyed by project development. The recommended course of action for these potentially significant sites is to collect the visible surface artifacts, disk the site to determine if there are significant artifact deposits below current grade, and then if warranted excavate up to 12 one meter by one meter excavation units to determine the extent and cultural significance of the site. Depending on the significance of the find, the site can either be preserved in place, artifacts collected and cataloged, or no further action taken if the site proves unimportant.

CA-ORA-710: The site is located on a relatively flat knoll or terrace, directly east of, adjacent to and 40 feet above Aliso Creek in the northwestern portion of the property. Boundaries of the site are approximately 165 x 245 feet.

The original recorders (Tadlock & Tadlock 1978) reported a wide range of artifacts over a rather large area. Subsequent archaeologists were not able to locate artifacts to that extent. Dillon (SRS 1989) discovered a chalcedony core, a chert flake and a burned piece of C\chert shatter as well as three "truncated" manos, which he apparently collected and removed from the site during his reconnaissance investigation. Truncated manos are discussed by Van Horn and Murray (1984). These manos were recovered at CA-ORA-486, along Aliso Creek, just a short distance away from site CA-ORA-710. The specimens had been "truncated" or broken off at one end and the rough end pounded smooth. They have been associated with the processing of "cacomites": a Spanish term referring to varieties of edible roots, bulbs and corms (bulb-like stems) that are found in the site vicinity.

Work consisted of a surface examination and surface collection. This resulted in the recovery of 26 artifacts including 16 uni- and bifacial manos (one possibly truncated) and mano fragments composed of porphyry, granite and metavolcanics, and chipped stone implements including three choppers, two hammerstones, one core, and four pieces of debitage. Material types here include metavolcanics, quartzite and quartz. subsequently, a disker pulled by a small bulldozer was employed to turn up the soil to a depth of three to five inches, with the purpose of uncovering near surface artifacts. This method, after a second surface collection, resulted in the recovery of an additional 56 artifacts including 11 groundstone implements; eight manos composed of granite (4) and porphyry (4), and three metate fragments - two of granite and one quartzite. chipped stone implements included 12 cores of metavolcanics, chert and quartzite; two hammerstones; two choppers; three scrapers and 25 pieces of debitage made primarily of chert and metavolcanics.

Eight 1 x 1 meter units were next excavated to determine the spatial extent of the site and verify the existence of a subsurface deposit. Fifty-eight artifacts were recovered and two of the units produced in situ features.

The sites inhabitants were utilizing a range of material types to fashion tools: chert (31%), metavolcanics (23%), granite (15%), porphyry (11%), quartzite (9%), metasedimentary (7%) and smaller percentages of jasper, sandstone and quartz. Some of the chert may have been heat treated.

Based on the characteristics of the artifacts recovered during the course of the test excavation, it is likely that the site is of Millingstone age. The lack of evidence of the mortar and pestle being used at the site further bolsters this hypothesis. The mortar and pestle technology is associated with the later Intermediate period when exploitation of the acorn became widespread.

A large portion of the artifacts were recovered from the western portion of the site in Units 1 through 3. Units 1 and 2 produced the three in situ features; therefore, it is established that this portion of the site's subsurface remains intact.

It is likely that a substantial subsurface deposit remains relatively undisturbed at the site; therefore, the site is deemed important and further data recovery is warranted during ground disturbing activities.

CA-ORA-711: The site is located on a low, flat ridge directly east of Aliso Creek and just north of a smaller tributary drainage. It measures approximately 170 x 170 feet. The original recorders (Tadlock & Tadlock 1978) reported a "sparse distribution of flakes, cores, and one chopper." Dillon (1989) was unable to relocate the site during his reconnaissance.

Work performed consisted of a surface examination and surface collection. This resulted in the recovery of 30 artifacts including 12 uni- and bifacial manos (one or two possibly truncated) of granite, sandstone, metavolcanics and porphyry. Chipped stone implements recovered include two cores, two hammerstones, one uniface, one biface, one scraper plane and 11 pieces of debitage composed of chert, porphyry, metavolcanics and quartzite. Subsequently surface collection during the course of excavation produced 16 additional artifacts including three manos, one metate, four cores, one hammerstone and seven pieces of debitage. Material types included chert, metavolcanics, granite, porphyry and quartzite.

As with CA-ORA-710, excavation at CA-ORA-711 was limited to a small fraction of the total site area. And similarly, a relatively wide range of tool and material types was recovered. This, again, indicates that a number of activities were probably performed on the site. Lithic tool production activities are evidenced by the recovery of 13 cores and a variety of waste flakes and other debitage, as well as associated hammerstones. The recovery of 39 manos and mano fragments and five metates and metate fragments is strong evidence that processing of the hard seed resources associated with the coastal sage scrub and chaparral communities was being accomplished. Scrapers and choppers were being utilized to process vegetable and wood fibers, as well as for working hides and bone.

CA-ORA-712: The site was described by Tadlock and Tadlock (1978) as being on a relatively flat hill overlooking CA-ORA-710 and 711 and Aliso Creek. It was described as a chipped lithic scatter, heavily damaged by bulldozing. Cultural material could not be relocated by subsequent researchers. The site is therefore not important, but the area should be monitored by a qualified archaeologist during mass grading operations.

CA-ORA-713: The site is located on a ridge between Oso and Aliso Creeks and on the ridge's north facing slopes as well as a relatively flat area at the slopes base. The area measures approximately 500 x 700 feet and could comprise two or more sites.

The original recorders of the site (Tadlock and Tadlock 1978) reported finding flakes, scrapers, cores, choppers and manos. Breece and Padon (1982) reported only three flakes. Dillon (SRS 1989) found no "portable artifacts", but discussed a sandstone concretion boulder with a cupulae ground into its upper surface.

Work on the site during the current project consisted of a surface examination and surface collection. This resulted in the recovery of 14 artifacts including two metavolcanic cores, a quartzite flake, a piece of metavolcanic shatter, a granite chopper, eight uni- and bifacial, porphyry and granite manos and a granite basin metate fragment. The cupulae noted by Dillon (SRS 1989) was seen, but the current researchers have serious reservations regarding the cultural nature of the cupulae. Subsequently, a disker pulled by a small bulldozer was employed to turn up the soil to a depth of 3-5 inches to expose near surface artifacts. This method resulted in the recovery of an additional 14 artifacts including three scrapers of metavolcanics (2) and granite, two quartzite cores, three pieces of metavolcanic (2) and quartzite debitage and six manos, uni- and bifacilly ground, composed of granite (4) and porphyry.

Since artifacts were scattered over a large area, a number of unrelated encampments occupied over a period of time may be represented. It is therefore recommended that controlled grading under the guidance of a qualified archaeologist be accomplished before the commencement of mass grading. Should clusters of artifacts be discovered, additional units could be excavated in those specific areas.

CA-ORA-714: The site is located on a domed hill on the ridge between Oso and Aliso Creeks, west of CA-ORA-713 and just to the south of a steep cliff leading down to a large Oso tributary drainage. Tadlock and Tadlock (1978) called the site a probably quarry containing assayed stones and Dillon (SRS 1989) only reported two artifacts. The presence of bedrock near and at the site's surface eliminated the possibility of extensive subsurface deposits. Bleached cow bones litter the ridgeline indicating either a carcass dumping ground or a carnivore feeding area. The site measures some 200 x 90 feet.

Work undertaken at this site was essentially surface examination and surface collection. Twelve artifacts were recovered as a result of this procedure including three unmodified hammerstones of metavolcanics (2) and porphyry, two cores of quartz and chert, four choppers of porphyry (3) and metavolcanics and three uni- and bifacial manos of porphyry.

The site was probably a short term encampment, perhaps the result of a single occurrent and because of the presence of exposed bedrock, a subsurface deposit is not expected.

CA-ORA-715: The site is located on a relatively flat, rounded hill comprising the ridge above the headwaters of Oso Creek, overlooking Aliso Creek. The site measures approximately 180 x 210 feet. A bulldozer cut in the site area establishes that soils have considerable depth.

Work on the site consisted of a surface examination and a surface collection. Thirty two artifacts were recovered including 13 uni- and bifacially ground manos, four of them fragments, composed of porphyry (8), sandstone (2), metavolcanics, quartzite and granite, four choppers of quartzite, metavolcanics, porphyry, and quartz, two bidirectional metavolcanic cores, one metavolcanic anvil, one metavolcanic hammerstone and eleven pieces of debitage of metavolcanics (5), chert (4), jasper and quartzite.

Although few artifacts were recovered from the subsurface, the relatively large number of artifacts recovered during the surface collection indicates that prehistoric activity did take place at the site. The presence of groundstone implements suggests the processing of hard seed resources associated with the area's coastal sage scrub and chaparral. Choppers were used to process vegetable and wood fibers, as well as for working hides and bone. Lithic tool production and/or maintenance is evidenced by the recovery of cores, debitage and associated hammerstones. Material types represented at the site included metavolcanics 33%, porphyry 24%, chert 18%, quartzite 13%, and small percentages of sandstone, quartz, jasper and granite.

CA-ORA-716: The site is located on a high hilltop in the northeastern corner of the project area. Tadlock and Tadlock (1978) reported finding a negligible number of flakes on the westerly portion of the site and flakes, cores and a redeposited chopper on the central and eastern portion. Dillon (SRS 1989), then reports finding just one basalt core at the site area and comments that much of the surface of the site has been graded to and below the surface of bedrock.

Relative to the current project, the site, or what is left of it, lies off the property to the west; therefore, no further action is required.

CA-ORA-1255: The site lies on the lower drainage of a small knoll creating an upland pond and overlooking a steep-sided drainage. It is approximately 80 x 80 feet in size. Dillon (SRS 1989) described the site as lying approximately 50 meters southwest of the pond in a natural amphitheater formed by a series of low, rounded knolls. Artifacts recovered by Dillon include one sandstone metate fragment, one core, two flakes and quartzite prismatic blade.

Previous work on the site consisted of a surface examination and surface collection. One metavolcanic flake was recovered by this method. Subsequently, two .50 x 1 meter units were excavated on the top of the knoll. Unit 1 was excavated to 20 cm, Unit 2 to 30 cm. The lone artifact recovered was a piece of metavolcanic shatter in the 10-20 cm level of Unit 2. The units were very shallow because a very light colored decomposing bedrock sand was encountered at those levels and the units were abandoned.

CA-ORA-1256: The site lies to the south and downslope from the southwest margin of CA-ORA-715, along a brushy fingerline ridge. Site dimensions are approximately 100 x 16 feet. Dillon (SRS 1989) first recorded the site and reported finding a large, crude,

"early" appearing scraper plane and an and site core/scraper. Dillon's photographs leave some doubt as to the cultural nature of the objects.

CA-ORA-1257: The site lies to the west and downslope of a low knoll directly west of Aliso Creek, and north of a steep cliff. Dillon (SRS 1989) recorded the site and reported finding a unifacial granite mano and a sandstone bedrock feature containing two cupules or incipient bedrock mortars. He commented that the mano was not truncated like the other three found at CA-ORA-710, but may have been used in conjunction with the bedrock feature for grinding purposes: therefore he called it an incipient bedrock mortar.

During a prior visit to the site the small boulder containing the purported cupules was seen, and during the current project it was again located.

CA-ORA-1435H (Hausauer Ranch): The site is located at the bottom of a deep drainage in the center of the property. It is surrounded by dense foliage (oak, eucalyptus and pepper trees). The site is a ranch complex comprised of the remnants of a residence, a small barn (collapsed), several out structures, a holding pond and a large olive grove numbering nearly 100 trees. The ranch buildings are in an advanced state of decay and have additionally been vandalized. The site complex measures approximately 900 x 330 feet.

CA-ORA-1437: This newly discovered site lies on a rounded knolltop at the northern edge of the property overlooking a small drainage leading south-westward into Aliso Creek. The site is approximately 450 feet northwest of CA-ORA-1255 and measures ca. 60 x 60 feet.

The site was discovered serendipitously as the reconnaissance crew was searching for CA-ORA-1255. Work performed on the site included a surface examination and the subsequent recording of all identified artifacts. Twenty-nine items were identified including mano fragments, metate fragments, cores and flakes. The items were not collected, precluding the possibility of further study (material types, measurements, weights) of the artifacts. Finally, an archaeological site record was prepared for the site.

Paleontology

The rock units underlying the project site have a history of fossil production dating from the 1930's and represent a significant scientific resource. The most abundant concentration of fossils appear to be located in the Topanga and undifferentiated Sespe Vaqueros Formations. Initial project site investigation has uncovered numerous fossil concentrations at various locations within the Sespe-Vaqueros Formation on the subject property. The Topanga Formation has yielded numerous occurrences of vertebrate fossils in boulders which have apparently eroded from higher elevation. One of these boulders contains a portion of a baleen whale skull and another contains what appears to be the skeleton of a large toothed whale. Based on the abundance of observed fossils currently exposed on site, it is anticipated that project grading and construction

will unearth additional fossil concentrations which may be destroyed without adequate precaution to document, recover and preserve what is found.

History

The remains of a ranch house and out buildings are located in an area that will be directly impacted by the approved project.

In comparison, the proposed project for 299 units would result in incrementally less disturbance to the project site, as compared to the proposed project, and would not impact potential on-site cultural and scientific resources. CA-ORA-710 has been recorded in the vicinity of the knoll adjacent to the Abbey property, and would be preserved under this project.

All of the discussion on pages 4-173 through 4-192 of SEIR 566 and Appendix L (Cultural Resources Assessment) remain adequate for this alternative. Imposition of the 21 mitigation measures in the SEIR, including PDFs, SCs and AMs will ensure that all project impact are reduced to below a level of significance.

No significant unavoidable adverse impacts to cultural scientific resources would occur with implementation of the proposed project.

Impact Significance Criteria

If the project may cause damage to an important archaeological resource, the project may have a significant effect on the environment. For the purposes of CEQA, an "important archaeological resource" is one that:

- Is associated with an event or person of: 1) recognized significance in California or American History, or 2) recognized scientific importance in history.
- Can provide information which is both of demonstratable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions.
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.
- Is at least 100 years old and possesses substantial stratigraphic integrity.
- Involves important research questions that historical research has shown can be answered only with archaeological methods.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Archaeology

Both the previous and proposed project may have significant impacts on the following archaeological sites: CA-ORA-710, CA-ORA-713, CA-ORA-715 and CA-ORA-1435H unless adequate safeguards are taken to document and recover any artifacts found at these locations. All other archeological sites have been determined to be not important.

Paleontology

Disturbance of potential paleontological resources may occur with project development without adequate mitigation.

History

Project implementation will directly impact CA-ORA-1435H, which may be considered significant.

CUMULATIVE IMPACTS

Archaeology

Cultural archeological resources are non-renewable in character. Once disturbed or destroyed, they can never be recovered. Cumulative impact to archeological and culture resources stems from their irreplaceable loss due to site development. The recommended mitigation measures will reduce the potential impact of site development, particularly to the known archeological sites on the subject property. Complete mitigation of the potential effects of site development on cultural resources is not fully possible however, because other archeological sites often remain hidden until project grading activities uncover them.

Paleontology

Fossils recovered at other locations from the rock formations underlying the project site have contributed to the understanding of the regions geologic and evolutionary history. Fossils are unique and irreplaceable scientific resources which can be lost forever unless adequate mitigation measures are taken to ensure their recovery and preservation.

Historical

No significant impact is anticipated.

MITIGATION MEASURES

Standard County Conditions and Mitigation Measures

Archaeology

SC 9-1 Prior to the issuance of any grading permit, a County-certified archaeologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified archaeologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PFRD/Harbors Beaches and Parks Division. A report of the literature and records search and the field survey shall be submitted to and approved by the Manager, PFRD/Harbors Beaches and Parks Division. Mitigation measures may be required depending upon the recommendations of this report. This mitigation measure has been completed as part of the Draft EIR.

SC 9-2 Prior to issuance of any grading permit, a county-certified archaeologist shall be retained by the applicant to perform a subsurface test level investigation and surface collection as appropriate. The test level report evaluating the site shall include discussion of significance (depth, nature, conditions and extent of the resources), final mitigation recommendations and cost estimates and shall be approved by the Manager, PFRD/Harbors Beaches and Parks Division. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis.

SC 9-3 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained to conduct pregrade salvage excavation of the archaeological resources in the permit area. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. A final report of the salvage operation shall submitted to and approved by the Manager, PFRD/Harbors Beaches and Parks Division, prior to any grading.

SC 9-4 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained, shall be present at the pregrading conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate

actions, in cooperation with the project developer, for exploration and/or salvage. The archaeologist shall submit a follow-up report to the Manager, PFRD/Harbors Beaches and Parks Division, which shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, PFRD/Harbors Beaches and Parks Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations in a manner acceptable to the Manager, PFRD/Harbors Beaches and Parks Division Facilities.

AM 9-5 Prior to site grading the project site shall be examined by a qualified archeologist, all potential archeological sites identified, and surface collection and documentation of artifacts be conducted.

AM 9-6 As indicated by the project archeologist, sites warranting further study shall be disced to ascertain the extent and significance of the deposit. If the project archeologist determines that a site is potentially of cultural worth, then additional excavation in a manner determined by the project archeologist shall occur prior to further grading or construction activities at these locations.

AM 9-7 During initial grading, the project site shall be monitored by a qualified archeologist who shall have the authority to order a temporary cessation of grading activities and take appropriate action to preserve any culturally significant materials if uncovered.

AM 9-8 If human remains of Native American origin are encountered during the project the County Coroner's Office and the Native American Heritage Commission shall be contacted for preservation and protection of the remains.

Paleontology

SC 9-9 Prior to the issuance of any grading permit, a County-certified paleontologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified paleontologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PFRD/Harbors Beaches and Parks Division. A report of the literature and records search and field survey shall be submitted to and approved by the

Manager, PFRD/Harbors Beaches and Parks Division, Future mitigation shall depend upon the recommendations of the report. This mitigation measure has been completed.

SC 9-10 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained by the applicant to conduct pregrade salvage and prepare a catalogue of the exposed resources. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PFRD/Harbors Beaches and Parks Division, for review and approval, which shall include methodology, an analysis of artifacts found, a catalogue of artifacts, and their present repository. This mitigation measure has been completed.

SC 9-11 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pregrading conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If major paleontological resources are discovered, the paleontologist shall determine appropriate actions, in cooperation with the project developer, which ensure proper exploration and/or salvage. Excavated finds shall be offered to the County of Orange, or its designee, on a first-refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PFRD/Harbors Beaches and Parks Division, which shall include the period of inspection, a catalogue and analysis of the fossils found, and present repository of the fossils. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the Manager, PFRD/Harbors Beaches and Parks Division.

Additional Mitigation Measures

AM 9-12 A qualified paleontologist shall be retained to perform periodic inspections of excavations and, if necessary, salvage exposed fossils. The frequency of inspections will depend on the rate of excavation, the materials being excavated, and the abundance of fossils. Initially, monitoring shall be on a full time basis in all excavations because of the high potential for the discovery of fossils in all the rock units present in the study area.

AM 9-13 The paleontologist shall be allowed to divert or direct grading in the area of an exposed fossil to facilitate evaluation and if necessary, salvage.

AM 9-14 To recover small fossils, it will be necessary to collect sediment samples from promising horizons discovered during grading monitoring for processing through fine mesh screens. Once the samples have been screened, they will be examined microscopically for small fossils.

AM 9-15 Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository.

AM 9-16 All fossils collected should be donated the County of Orange's designated repository.

AM 9-17 A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project.

Historical Resources

SC 9-18 Prior to issuance of a grading permit, project applicant shall provide written evidence to Manager, PFRD/Harbors Beaches and Parks Division that an historian has been retained by the applicant to implement final mitigation measures. A final report shall be submitted to and approved by the Manager, PFRD/Harbors Beaches & Parks Division prior to any alteration of the historical site area.

SC 9-19 Development adjacent to a place, structure, or object of historic significance shall be designed so that permitted uses and architectural design will protect the visual setting of the historic site. Such design shall be submitted to and approved by the Manager, PFRD/Harbors Beaches & Parks Division prior to any alteration of the historical site area.

Cultural/Scientific Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The proposed project will result in preservation of CA-ORA-710 and historic ranch house.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	Although the proposed project will continue to have a significant impact on cultural resources, no new adverse impacts will occur.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

10. RECREATION ANALYSIS

PROJECT IMPACTS

A primary goal in the County's Recreation Element is to provide adequate local park sites to meet the recreation needs of existing and future residents and preserve the natural resources within unincorporated Orange County. To comply with this goal the County acquires park land by requiring residential developers to provide a minimum of 2.5 net useable acres for every prospective 1,000 residents. Based on the projected population, local park requirements would total approximately 4.0 acres. The nearest facility containing playground equipment is the Portola Hills Elementary School located approximately 3/4 of a mile west of the site. Playground equipment is also found near the entrance to O'Neill Park located over two miles southeast of the subject property.

Mitigation of project-related local park impacts may be provided by the payment of local park fees as required by the Orange County Department of Harbors, Beaches and Parks. County regulations permit the payment of fees in lieu of actual on site park construction, allowing for the construction and maintenance of local parks at other more appropriate locations.

Although the approved 705-unit project is not proposing to improve the view park site and connecting trail, the project is proposing the construction of other regional recreational facilities which may mitigate this omission. As previously indicated, the applicant will be providing on site relocation and connection to the Aliso Creek Regional Riding and Hiking Trail. Provision of these recreational trail improvements in conjunction with required park fees, will provide mitigation for the lack of on-site park facilities.

In comparison, the proposed project for 299 units would provide for enhanced recreational amenities as compared to the approved project including access to existing and proposed trails, and an interpretive trail head park / staging area, and an passive ridge top lookout park as possible amenities associated with a ±90-acre extension of O'Neill Regional Park. The proposed project would achieve the goals outlined in the Recreation Element of the Foothill/Trabuco Specific Plan.

Much of the discussion on pages 4-192 through 4-199 of DEIR 566 remains appropriate for the proposed project. The SEIR includes 15 mitigation measures relating to recreation, which require the applicant to provide trail connections and develop the view/lookout park.

No significant unavoidable adverse impacts to recreation would occur with implementation of the proposed project.

Impact Significance Criteria

The effects of a project on recreation are considered to be significant if the project will result in the following:

- The demand generated by the project meets or exceeds the capacity of existing park lands, bicycle trails and hiking trails, or otherwise requires their expansion or requires the construction of major new facilities.
- The project will cause permanent removal or relocation of existing recreational trails, parks or other facilities in the area.
- The project would be in conflict with existing or planned recreational uses in the project area of effect.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to mitigation, would result in significant impacts to existing local public park demand. This impact however will be reduced by the provision of in-lieu fees.

CUMULATIVE IMPACTS

The proposed project will increase area population by approximately 1,000 persons which will contribute to the cumulative impact on local and regional recreational

facilities. This potential impact is considered incidental given the overall increase of recreational facilities to be provided by other regional development and is not considered significant.

MITIGATION MEASURES

Project Design Features

PDF 10-1 The Live Oak and Aliso Creek riding and hiking trail shall be located on the Project Site as shown in Exhibit 7 and Exhibit 63 of SEIR 566, pp. 3-11 and 4-200).

PDF 10-2 Live Oak Canyon Trail shall be constructed on-site, ultimately connecting O'Neil Regional Park to the Aliso Creek riding and hiking trail, as shown in Exhibit 7, Site Plan, of SEIR 566, p. 3-11.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations:

AM 10-5 Prior to first building occupancy, the applicant shall pay all park mitigation fees as required by the Department Manager, PFRD/Harbors Beaches & Parks Division.

AM 10-6 Prior to final building occupancy the applicant shall dedicate and construct all required regional trail connections and improvements as approved and required by the Department Manager, PFRD/Harbors Beaches & Parks Division.

Recreation Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	No	No changes in significant impacts occurred.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	Although the proposed project will continue to have a significant impact on recreation, no new adverse impacts will occur.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

11. HAZARDS ANALYSIS

PROJECT IMPACTS

The proposed project site is located in a high fire hazard area, and as a result, all future development would be subject to risk during wildfires. The circulation system proposed by the proposed project provides for similar emergency access as the approved project, with 224 units served off of a single means of access. It should be noted that the proposed project proposes a single loaded primary spine road on-site, which would reduce fire hazards to proposed residents by allowing for direct access to major on-site wildland areas and allowing for additional non combustible areas adjacent to residential areas. The location of the proposed project hiking trail is proposed to travel through the primary east-west wildlife movement corridor, which could result in an increase in human/wildlife interaction hazards.

All of the discussion on pages 4-199 through 4-208 of Certified SEIR 566 remain appropriate for the proposed project. Because of the inclusion of nine (9) PDFs and (21) SCs, as well as the design features of the project, potential hazard impacts are reduced to below a level of significance.

No significant unavoidable adverse impacts to hazards would occur with the proposed project.

Impact Significance Criteria

The risks posed to public health and safety are considered to be significant if the project will result in the following:

- Provision of insufficient fire protection measures, and/or design plans inconsistent with the Development/Open Space policies of the LUP (Land Use Plan, Chapter 3M, I-3.35).

- The placement of habitable structures within 1,000 feet of a landfill boundary without monitoring gas migration to the satisfaction of the Local Enforcement Agency (LEA), as specified in Title 14, CC&R 17783.5.

- Exposure of humans to radio frequency (RF) energy that exceeds the standards and guidelines established by the American National Standards Institute (ANSI) or National Council on Radiation Protection and Measurements (NCRP). The Ansi standards are set in the *American National Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz* (ANSI 1992), and are similar to the NCRP maximum personal exposure limits.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Wildfire

Due to topography, biology, and weather conditions the project site is located in area classified as a "Special Fire Protection Area" by the Orange County Fire Authority. To help mitigate property damage and risk to project residents in the event of a wildfire in the project vicinity, a number design measures would be incorporated into this project.

First the project site will implement a comprehensive fuel modification program in accordance with County standards. Typically fuel modification consists of a twenty-foot setback zone (Zone A), a minimum of fifty foot irrigated zone (Zone B), with an additional minimum of one hundred feet (100') of brush thinning zone (Zones C and D). Exhibits 64 and 65 of SEIR 566, pp. 4-208-209, illustrate these standards. Manufactured slope and remedial grading areas will be replanted with native low fuel plant species to further reduce the fire risk.

The site is also located ½ mile east of the Portola Hills Fire Station and less than a 30-second flight time from the upper Oso Reservoir, which will be used by OCFA helicopters, and a ten minute flight time to the site from the helicopter station at Fullerton Airport. (Helicopter dispatch is only included in dispatch to Wildland fires not structural fires on-site.) Therefore, during wildfire suppression operations, emergency response times to the subject property are expedite. To ensure fire fighter access to

wilderness areas surrounding the site, individual lots around the project perimeter will provide a recorded unobstructed fire access easement through these properties ensuring adequate emergency access to all portions of the project's perimeter. Finally project construction will use alternative fire resistant materials and methods including concrete tile roofs, closed eaves and soffits, double paned/dual glazed windows, and noncombustible exterior building facing. Wet and dry utilities will be located on opposite sides of the street to minimize lane closures during maintenance periods.

Emergency Access

Due to site constraints, only one primary access roadway can be provided to the eastern portion of the site. The provision of only one main access road is of concern since this roadway could become obstructed and impassible in emergency situations creating an impact to public safety. As indicated on the site plan, primary project access is provided from El Toro Road by the main spine road extending the length of the site, with secondary access via Valley Vista Way in the Hidden Hills tract south of the project site. This roadway design leaves a majority of the proposed lots with one single access point east of Valley Vista Way. In the event that this east access point is blocked or impassible in an emergency situation, residents and emergency personnel have no other all weather access alternatives. As indicated by the OCFA, mitigation of this restricted access may be provided by the proposed fire mitigation features and by providing internal fire sprinklers for the single access lots in the proposed project.

Wildlife Interaction

Conflict between wildlife and project residents and pets is an associated project risk due to the proximity of wild areas to the subject site. As more residential development occurs at the interface with wilderness areas, the potential for increased contact with dangerous wild animals increases. In the past, when development encroached into previously undeveloped areas, the wildlife would move on to new more remote foraging ranges. Unfortunately, due to developmental encroachment which now encircles the remaining wilderness areas, the ability for animals to relocate to new grounds is limited. A number of animal species, particularly coyotes and raccoons have proved particularly adaptable to human presence, foraging and hunting in proximity to residential housing tracts.

CUMULATIVE IMPACTS

Implementation of the proposed project will add to the cumulative encroachment of residential tract development into existing remaining rural and wilderness areas, further reducing the natural foraging habitat area available to area wildlife and increasing the opportunities for human/animal conflict within the interface zone between the built manmade and natural environments.

Project construction within extreme fire risk areas adds to the potential cumulative impact of increased fire frequency and increased property and human loss due to fire events.

MITIGATION MEASURES

PDF 11-1 Implement a comprehensive fuel modification program in accordance with Section 27 of Appendix II-A of the 1994 Uniform Fire Code as adopted by County Ordinance 3954 (the Wildland Urban Interface Task Force report was not adopted and is not enforced by the OCFA). Exhibits 9 and 64 of SEIR 566, pp. 3-13 and 4-208, illustrate the fuel modification zones and, although adequately described, it should be noted that the distances are horizontal measurements rather than vertical and, therefore, may actually be larger zones as measured vertically up or down a slope (based on topography).

PDF 11-2 Incorporate the use of native, low fuel plant species into the landscape plan for both manufactured slope areas and remedial grading areas where appropriate as approved by the OCFA.

PDF 11-3 Provide for the construction of a water tank off site to ensure adequate on site water supply and OCFA fire flow requirements. The minimum fireflow requirements for this project of 1500 gpm for a minimum of 2 hours at 20 psi residual pressure. This flow must be available 24 hours per day .

PDF 11-4 Wet and dry utilities shall be constructed on opposite sides of the project streets to minimize land closure during maintenance periods.

PDF 11-5 Residential structures shall be constructed of fire-resistant material, including but not limited to, "Class A roof assemblies", closed eaves and offsets, double paned or dual glazed windows. The exterior walls of structures will be constructed of " 1-hour fire resistant materials" and all structures will have fire sprinklers.

PDF 11-6 All residential structures shall be required to have automatic interior fire sprinkler systems.

PDF 11-7 The interface area between residential lots and open space areas within the project boundary shall be wrought iron fenced to minimize intrusion of wildlife into the built portions of the project site.

Standard County Conditions and Mitigation Measures

SC 11-8 Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.

SC 11-9 Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.

SC 11-10 Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.

SC 11-11 Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to the Fire Chief for review and approval.

SC 11-12 Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be clearly marked.

SC 11-13 Prior to the issuance of any certificates of use and occupancy, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.

SC 11-14 Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief. Contact the Orange County Fire Department at (714)744-6623 for a copy of the "Guidelines for Fire Department Emergency Access".

SC 11-15 Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manger, Environmental and Project Planning Services Division. The Planning and Development Section shall be contacted at 744-0403 for requirements to be met and clearance of this condition. The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants.

SC 11-16 Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be necessary by the Fire Chief before the introduction of any combustible construction material into the project area.

SC 11-17 Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.

Hazards Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	No	No changes in significant impacts occurred.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	The conclusion of no unavoidably adverse hazard impacts reached in Certified SEIR 566 remains appropriate for the proposed project.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

12. PUBLIC SERVICES ANALYSIS

PROJECT IMPACTS

Sheriff

The Orange County Sheriff's Department has indicated that it can provide adequate police service to the project area. The new response time varies with the location of the deputies at the time of the call, and range from five (5) to fifteen (15) minutes. Based on

an officer/population ratio of 2:1000, three additional officers would be required by the project.

Fire

The approved project proposes 705 manufactured single family residential dwelling units on 222.23 acres of land that is classified as a High Fire Hazard Severity Zone by the OCFA. A 1.4 million-gallon water tank will be constructed in the northeast corner of the project site. This tank will be able to meet the water demand and fire flow requirements for the project (860,000 gallon water supply/540,000 gallon fire flow).

The previous and proposed project is a residential community with two points of access (spine road at El Toro Road and Valley Vista Way). Valley Vista Way is proposed as an emergency access only. Portions of the project above Valley Vista Way would be served by only one access, El Toro Road. Emergency medical response to areas above Valley Vista Way could be delayed, if the main spine road is blocked or made impassable.

Education

Implementation of the previous and proposed project would add additional students to an already overcrowded system. Project-related student generation is shown in Table 33.

PROJECT-RELATED STUDENT GENERATION

Grade	Units	Student Generation Factor	Student Generation
K-6	299	0.340/du	102
7-8	299	0.065/du	19
9-12	299	0.160 du	48
Total			169

As shown, 169 K-12 students would be generated at buildout of the approved project.

Library

Implementation of the previous and proposed project would result in additional demand for library services in the project area.

The local branches of the Orange County Public Library System will be able to serve the needs of the project's residents. The system has established the following standards for service:

- .2 square feet of library space per capita;
- 1.3 volumes per capita.

Based on an average of 2.57 persons per dwelling unit countywide, the proposed project will increase population by 768 persons using the above figures. Development of the proposed project will require approximately 154 square feet of additional library space and approximately 998 additional volumes. Currently, according to the County, most Orange County public libraries are within current service guidelines. However, due to County budget constraints, branch libraries vary their hours and reduce services to cut spending. The County also requires participation in the County's Development Fee Program for Libraries. Currently the fee is set at $185.00 per dwelling unit.

Solid Waste

The project will have trash and recycling collection services provided by Waste Management of Orange County (WMOC). WMOC will provide storage containers for refuse collection and recycling bins for recyclable materials. Refuse is collected once a week and recyclable materials will be collected every other week. Currently WMOC charges $13.96 per dwelling unit per month. WOC estimates an average of 65 pounds of refuse per month per household unit in unincorporated Orange County. The following table shows the estimated solid waste generation for the proposed project.

PROJECT-RELATED SOLID WASTE GENERATION

Land Use	# of Units	Generation Factor	Monthly		Annual	
			Lbs.	Tons	Lbs.	Tons
Single Family Residential	299	65 lbs/du/mo	19,435	9.72	233,220	116.6

Refuse will be transported by the County run Integrated Waste Management Department to one of two (2) County owned landfills. They are Prima Deshecha, a 1500 acre facility in San Juan Capistrano and the Frank Bowerman landfill, a 725 acre facility in Irvine. The Integrated Waste Management Department of Orange County runs five (5) landfills in Orange County, which the County indicates will have available landfill capacity for 50 years.

Recyclable materials are transported to Sunset Environmental in Irvine for processing.

The demand for public services and utilities by the proposed project for 299 units would be reduced as compared to the approved project (705 units), due to a substantial

decrease in the number of proposed residential lots and associated residents. No unavoidable adverse impacts to public services and utilities would result.

All of the discussion on pages 4-209 through 4-222 of Certified SEIR 566 remain appropriate for the provision of public services, including sheriff, fire, schools, library and solid waste. Because of the ten (10) PDFs and eighteen (18) SCs, no unavoidable impacts will be generated with the proposed project.

No significant unavoidable adverse impacts to public services would occur with the proposed project.

Impact Significance Criteria

The effects of the project on public services is considered significant if the project will result in the following:

- The demand for school facilities, police and fire protection, library services, or solid waste facilities meets or exceeds their capacity.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Sheriff

The project will have no significant impact on the Orange County Sheriff's Departments ability to provide adequate police services.

Fire

Due to topography, vegetation and climatic conditions, the project site is located in an area classified as a "Special Fire Protection Area" by the OCFA.

Because much of the project would be served by a single access road, the OCFA has expressed concern that public safety could be compromised should this road become blocked or impassable.

Education

Implementation of the proposed project would result in the generation of about 168 additional students into the currently overcrowded Saddleback Valley Unified School District.

Library

The project will not have a significant impact on the Orange County Public Library System's ability to provide services.

Solid Waste

WMOC would be able to provide refuse collection and Integrated Waste management does have landfill space available. There are no significant impacts from the project.

CUMULATIVE IMPACTS

Sheriff

Anticipated countywide growth combined with the project impacts would have a cumulative impact on Sheriff Department services over time.

Fire

The anticipated countywide growth in combination with the project impacts would have a cumulative impact on fire and emergency services in Orange County.

Education

District-wide growth in combination with project-related impacts would result in cumulative impacts to the Saddleback Valley Unified School District.

Library

This project in combination with regional growth would have a cumulative impact on the Orange County Public Library System.

Solid Waste

The Integrated Waste Management Department indicates that landfill space is available for the next 50 years and the project will not have a significant impact on landfill capacity; however, regional development will have a cumulative impact on available landfill space.

MITIGATION MEASURES

Project Design Features

Sheriff

SC 11-8 Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.

SC 11-9 Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.

SC 11-10 Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.

SC 11-11 Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to the Fire Chief for review and approval.

SC 11-12 Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be clearly marked.

SC 11-13 Prior to the issuance of any certificates of use and occupancy, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.

SC 11-14 Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief. Contact the Orange County Fire Department at (714)744-6623 for a copy of the "Guidelines for Fire Department Emergency Access".

SC 11-15 Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manger, Environmental and Project Planning Services Division. The Planning and Development Section shall be contacted at 744-0403 for requirements to be met and clearance of this condition. The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants.

SC 11-16 Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be necessary by the Fire Chief before the introduction of any combustible construction material into the project area.

SC 11-17 Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.

Public Services Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The 299-unit proposed project will result in less demand for fire, police and school services compared to the previous 705-unit project.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	The conclusion of no unavoidably adverse public services impacts reached in Certified SEIR 566 remains appropriate for the proposed project.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

13. UTILITIES & SERVICE SYSTEMS ANALYSIS

PROJECT IMPACTS

Water

The Trabuco Canyon Water District (TCWD) has indicated that the project's water needs can be met. Water demands were estimated using current Orange County Fire

Authority criteria plus current TCWD standard guidelines. TCWD has established the average annual water demand at 450 gallons per dwelling unit (du) per day for residential land uses. The following table shows the project-related water demand.

PROJECT-RELATED WATER DEMAND

Land Use	# of Units	Generation Factor	Gallons Per Day
Single-Family Residential	299	450 gal/du/day	134,550
Irrigation	51.0 ac	2.5 af/ac/yr	127,500
Total			262,050

Water for irrigation has been estimated to require 2.5 acre feet per acre, per year (af/ac/yr). Maximum day demand has been calculated using TCWD's 2.0 multiplier for residential and 2.5 multiplier for irrigation uses.

Since the project will have a single water source it is classified as a "stand alone" zoned water distribution system. Proposed service zones for the project are:

Zone 0	Existing systems at point of connection 865-feet to 1065 feet.
Zone 1	Elevation 1,085 feet to 1,200 feet.
Zone 2	Elevation 1,200 feet to 1,400 feet.
Zone 3	Elevation 1,400 feet to 1,510 feet.

Because of the elevation gain at the project site a booster pump station near the main water line connection is necessary to pump water to a reservoir located just outside the property's northeast tract boundary at pad elevation 1,590 feet. The water tank site was dedicated to TCWD when Tract Map 10692 recorded. In addition, a $904,425 capital improvement charge was paid to the Trabuco Canyon Water District when Tract Map 10692 recorded in 1988. TCWD will construct the water tank concurrent with project development.

Wastewater

TCWD indicates that the project's waste water needs can be met. Most of the project will be served by an 8-inch line which will gravity flow beneath the collector street into the TCWD's 15-inch line in El Toro Road. The remaining lots in the southwest corner of the project will connect to the 8-inch line in Valley Vista Way and gravity flow into the 15-inch line in El Toro Road.

TCWD has established a discharge factor of 90 gallons per person with 3 persons per unit. The following table shows the estimated project-related sewage discharge flow.

PROJECT-RELATED WASTEWATER GENERATION

Land Use	# of Lots	Discharge Factor (90 gal/pp @ 3 persons/unit)	Discharge Gallons (per day)
Single Family Residential	299	270 gal/day	80,730

The existing TCWD 15-inch line serving the project has reserved capacity for the project in the amount of approximately 200,000 gallons per day. In addition, substantial sewer capacity fees amounting to $973,528.58 was paid to Trabuco Canyon Water District when the Tract Map 10692 recorded in 1988.

Electricity

SCE indicates that the electrical loads of the project are within parameters of the overall projected load growth which SCE is planning to meet. Unless the demand for electrical generating capacity exceeds SCE's estimates, and provided that there are no unexpected outages to major sources of electrical supply, SCE expects to meet the demand for electricity from the project site. SCE's estimates for residential electrical consumption are based on a figure of 700 kilowatt (kwh) hours per dwelling unit (du) per month. The following table shows the monthly and yearly project related electrical consumption.

PROJECT-RELATED ELECTRICAL CONSUMPTION

Land Use	Number of Units	Generation Factor	Monthly kwh of Electricity	Annual kwh of Electricity
Single-Family Residential	299	700 kwh/month	209,300	2,511,600

Natural Gas

SCG indicates that the project's natural gas needs can be met without major system expansion.

Gas consumption has been estimated by SCG at 1,095 therms per year per single family dwelling unit. The following table shows annual project-related natural gas consumption.

PROJECT-RELATED NATURAL GAS CONSUMPTION

Land Use	No. of Lots	Generation Factor	Therms Per Year
Single Family Residential	299	1,095 Therms/du/yr	327,405

Note: 1 Therm = 100 cu.ft. of natural gas

Cable

Cox Communications has indicated that it can provide cable service to the area. There will be no charge to the applicant or homeowners to have cable TV services provided to the project site.

Communications

Pacific Bell has indicated that it can provide telephone service to the area. There will be no charge to the applicant or homeowners to have telephone services provided to the project site.

Summary

In comparison, Demand for utilities and service systems would be substantially reduced under the proposed project for 299 units, as compared to the previous proposed project, since a substantially reduced number of residential units are proposed. All of the discussion on pages 4-223 through 4-235 of Certified SEIR 566 remain appropriate for the proposed project regarding utilities and service systems, and the provision of water, wastewater, electricity, natural gas, cable and communications. Because of ten (10) PDFs and eight (8) SCs, no unavoidable impacts would occur under proposed project, in these service areas.

Impact Significance Criteria

The effects of a project on utilities and service systems is considered to be significant if the project will result in the following:

- The demand generated by the project meets or exceeds the capacity of existing, or otherwise requires their expansion, or requires the construction of major new facilities.
- The project's demands for fuel or energy meet or exceed existing supplies, or otherwise cause supply and/or capacity constraints.
- The project's demands exceed the capacity of existing utility systems, or otherwise require the expansion or construction of major new facilities.

- The project causes significant disruption of service.

SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Water

Project implementation would not result in significant impacts on TCWD's ability to provide water service. Due to the elevation change between the water line connection and the reservoir, a booster pump station will be required to provide adequate water supply for the site.

Wastewater

The project will have no significant impacts on TCWD's ability to provide wastewater service to the area.

Electricity

The project will have no significant impacts on SCE's ability to supply electricity to the area.

Natural Gas

The project will have no significant impacts on SCG's ability to provide natural gas service to the area.

Cable

The project will have no significant impact on Cox Communications ability to supply cable TV service to the area.

Communications

The project will have no significant impact on Pacific Bell's ability to supply telephone service to the area.

CUMULATIVE IMPACTS

Water

The cumulative impacts of the project are not significant. The project falls within the plans of the TCWD for long range growth.

Wastewater

The cumulative impacts of the project are not significant. The project falls within the plans of the TCWD for long range growth.

Electricity

The cumulative impacts of the project are not significant. The project falls within the plans of SCE for long range growth.

Natural Gas

The cumulative impacts of the project are not significant. The project falls within the plans of SCG for long range growth.

Cable

This project along with other proposed projects would not have a cumulative impact on Cox Communication's ability to provide services to the area.

Communications

This project along with other proposed projects would not have a cumulative impact on Pacific Bell's ability to provide service to the area.

MITIGATION MEASURES

Project Design Features

Water

PDF 13-1 The new booster pump station shall be paid for by the applicant and designed and function according to TCWD's guidelines and standards.

PDF 13-2 Operational capacities and pressure parameters for design of the booster pump station (approved by OCFA) shall be determined at design stage and should incorporate but not be limited to the following requirements:

- It shall meet the maximum day demand for the "stand alone" zones of Saddleback Meadows with an operating time of 24 hours and without its largest unit in service.
- It shall be designed with a back-up generator for the booster pump, as well as fuel and maintenance provisions.
- It shall incorporate the typical 3 or 4 pump system with an alternating state sequence.
- It shall pump from TCWD's El Toro Road zone (1,165 feet HWL) to the storage facility (reservoir) proposed.

- It shall have the ability to refill the proposed reservoir, if it were empty, within 72 hours while also providing for maximum day demands on the water system during that time.

PDF 13-3 Water conservation measures to be implemented consist of water-conserving features in the design and construction of residential homes and uses, plus use of drought-tolerant plant materials in the slope and streetscape plantings. Proposed water conservation measures also include:

- Supply line pressure: Water pressure greater than 50 pounds per square inch (psi) reduced to 50 psi or less by means of pressure-reducing valves.
- Ultra-low-flush toilets: 1.5 gallon-per-flush toilets installed in all new construction.
- Landscape with low-water-using plants wherever feasible.
- Grouping of plants of similar water use to reduce over-irrigation of low-water-using plants.
- Extensive use of mulch as top cover to improve water-holding capacity of the soil.
- Installation of efficient irrigation systems that minimize runoff and evaporation, and maximize the amount of water reaching plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are proposed methods of increasing irrigation efficiency.

PDF 13-4 All design and landscape features shall comply with TCWD's guidelines and standards.

Wastewater

PDF 13-5 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Electricity

PDF 13-6 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Natural Gas

PDF 13-7 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Cable

PDF 13-8 All utilities shall be installed by Cox Cable in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Communications

PDF 13-9 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Standard County Conditions and Mitigation Measures

Water

SC 13-10 Prior to the issuance of any building permit(s), the applicant shall provide a report to the Manager, PDS/Building Permits Services Division, indicating that plans showing the location of all proposed reclaimed water lines used to irrigate open spaces, parks, and other landscaped areas, have been submitted to and approved by the Trabuco Canyon Water District.

SC 13-11 Prior to the issuance of building permits, water conservation measures shall be incorporated into the development design plans and which shall be submitted for approval to the Trabuco Canyon Water District.

Wastewater

SC 13-12 Prior to the issuance of a certificate of use and occupancy, sewer lines, connections, and structures shall be installed in a manner meeting the approval of the Manager, HCA/Environmental Health.

A. All waste water facilities and line shall be constructed and maintained to meet TCWD standards and requirements.

B. All sewer lines shall be underground facilities.

C. The project shall comply with all State of California Health and Safety Codes.

Electricity

SC 13-13 Prior to the issuance of a building permit, project proponent shall consult with the local gas and electric companies regarding feasible energy conservation features that should be included in the design of the proposed project. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 13-14 Prior to the issuance of a building permit, the project proponent shall incorporate passive or natural heating and cooling opportunities in the design of the proposed project including but not limited to the following: solar energy use; thermal insulation; tinted or solar reflective glass; orientation to sunlight; use of deciduous trees in landscaping; installation of roof fans; utilize fluorescent lighting, switches and thermostat, utilize time-controlled lighting; and, utilize AC units with 100% outdoor air economize. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Natural Gas

SC 13-15 The applicant shall provide for all lines and mains necessary to provide natural gas to the project.

SC 13-16 The applicant shall obtain all required permits and follow all SCG, State and County regulations and requirements regarding natural gas service.

Cable

No standard condition requirements.

Communications

SC 13-17 Applicant shall comply with the requirements of the California Public Utilities Commission and Pacific Bell Telephone Company for the provision of telephone service.

Utilities & Service Systems Summary Findings

	Yes/No	Status/Comment
Changes in regional or local conditions?	No	No change in regional or local conditions occurred which exceed the thresholds established in Certified SEIR 566.
Changes in impact thresholds?	No	The impact thresholds established in Certified SEIR 566 remain adequate.
Changes in mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate for the proposed project.
Changes in significant impacts?	Yes	The 299-unit proposed project will result in less demand for water, wastewater, electricity, natural gas and communication services compared to the previous 705-unit project.
Changes in cumulative impacts?	No	The assessment of cumulative impacts within Certified SEIR 566 remain adequate for the proposed project.
New significant adverse impacts?	No	The conclusion of no unavoidably adverse utilities and service systems impacts reached in Certified SEIR 566 remains appropriate for the proposed project.
Additional mitigation required?	No	The mitigation measures within Certified SEIR 566, including PDFs, SCs, & AMs, remain adequate in scope for the proposed project. No additional mitigation measures are required.

14. FINDINGS:

1. AB 3158 FEE EXEMPTION: Find that pursuant to Section 711.4 of the California Fish and Game Code, this project is exempt from payment of required fees as it has been determined that the required fees have been paid.

2. The proposed project will be beneficial in achieving both long-term and short-term goals; it will provide both employment opportunities as well as additional housing opportunities for the future.

3. The impacts associated with implementation of the proposed project would be substantially less than those associated with implementation of the previously approved project evaluated in Certified SEIR 566 for biological resources, public services, traffic, air quality, cultural resources, aesthetics and recreation, with all of the other environmental factors expected to experience similar impacts. Impacts considered significant, unavoidable and adverse for the proposed project, as identified in Certified SEIR 566, would remain as such, with the

exception of aesthetic impacts to St. Michael's Abbey and the Ramakrishna Monastery, which would be greatly reduced through the use of landform grading in conjunction with landscaping, as well as the elimination of residential lots north of the on-site spine road. No additional significant adverse effects would occur as a result of implementation of the proposed project beyond those identified for the proposed project in Certified SEIR 566. Additional mitigation measures have not been proposed or required.

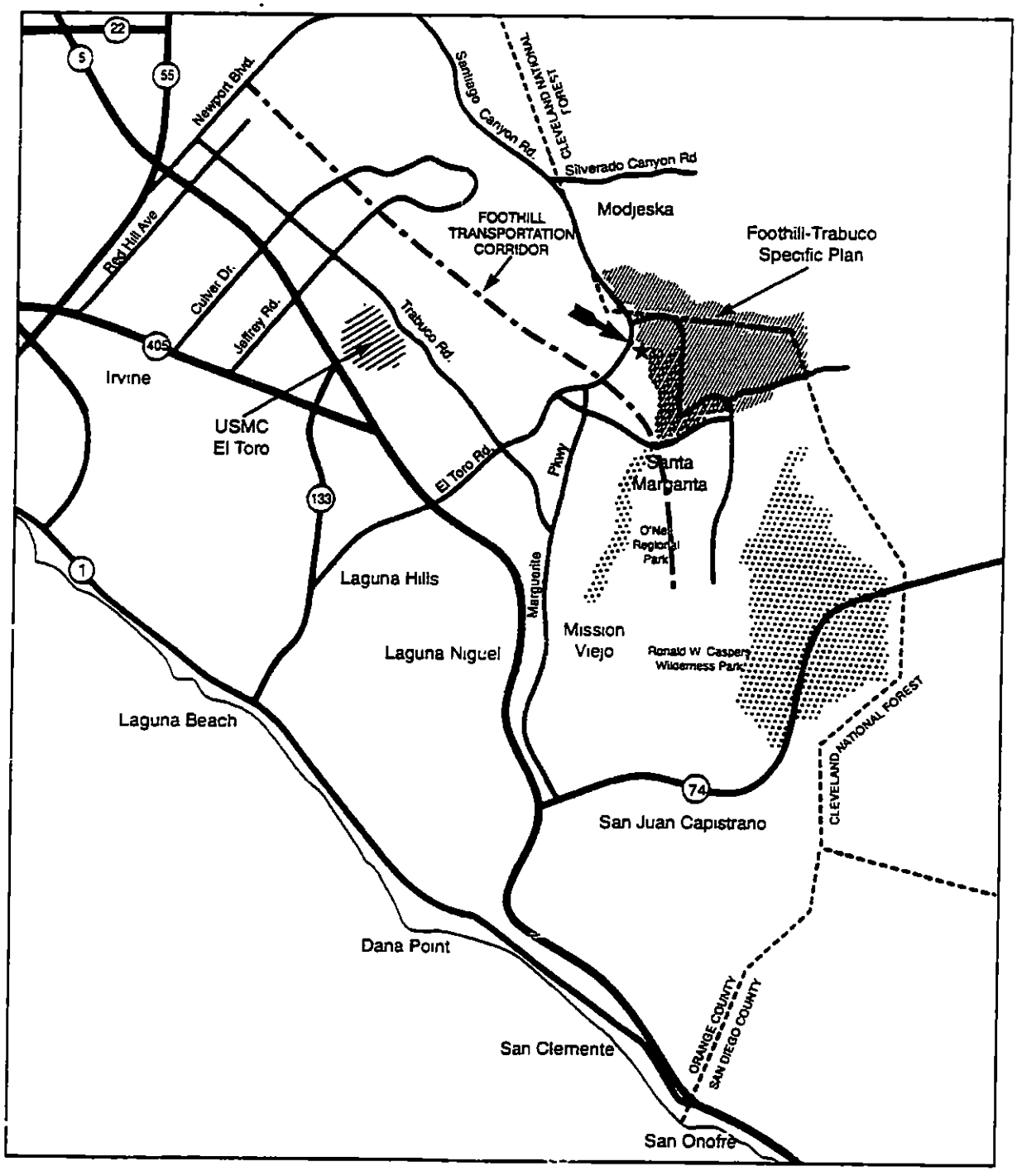
4. Find that the project as proposed will not have any adverse effects or impacts on humans or otherwise.

5. Find that Final SEIR, which was certified in January 27, 1998, satisfies the requirements of CEQA for this project.

15. DETERMINATION:

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because Final SEIR 566, certified December 3, 1997 has been prepared, with mitigation measures which will ensure that any project related impacts will be mitigated to a level of insignificance.

EXHIBITS



Regional Location Map Exhibit 1

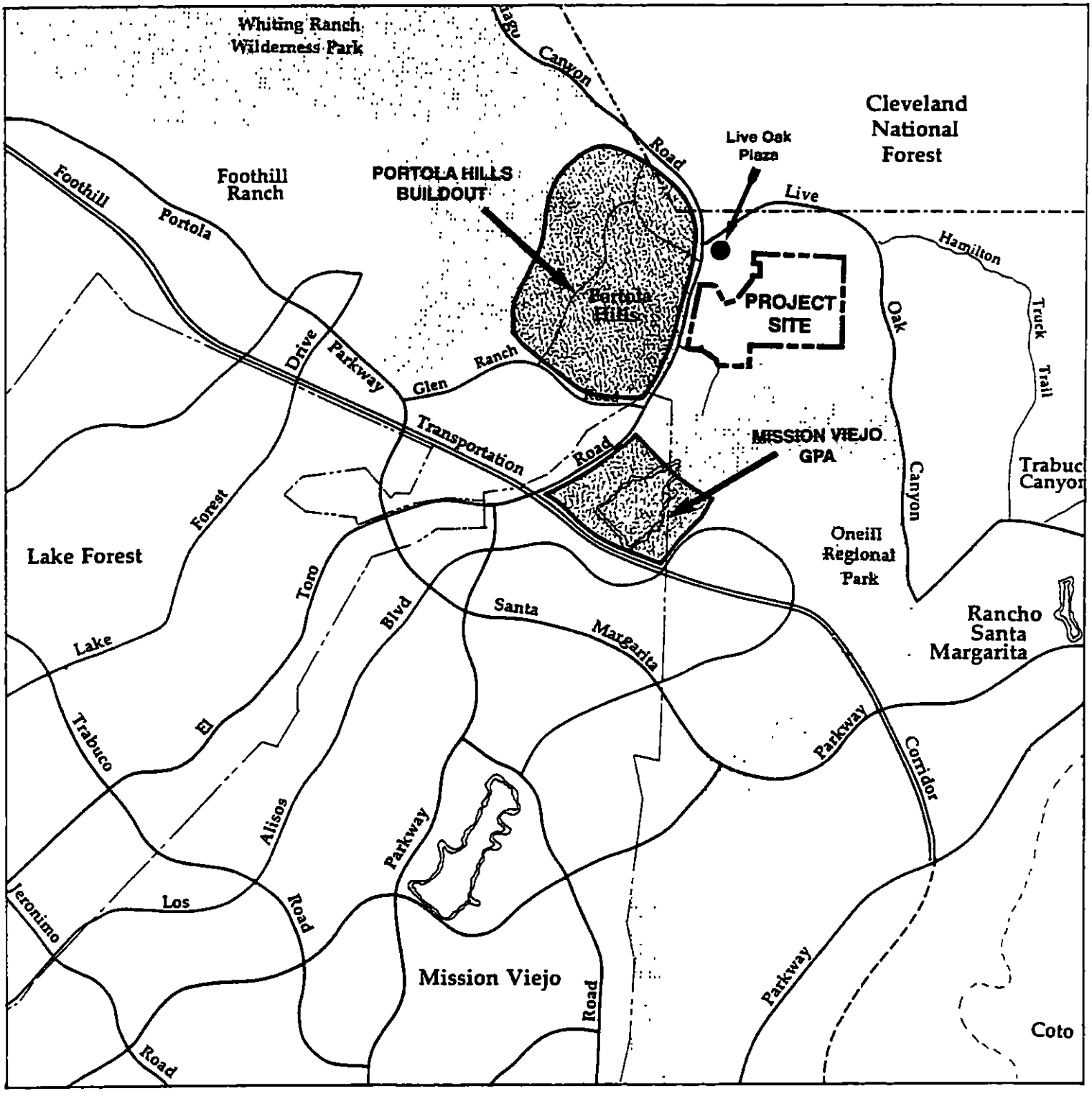
URBAN VISION

County of Orange P&DS

Scale:

Source:

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

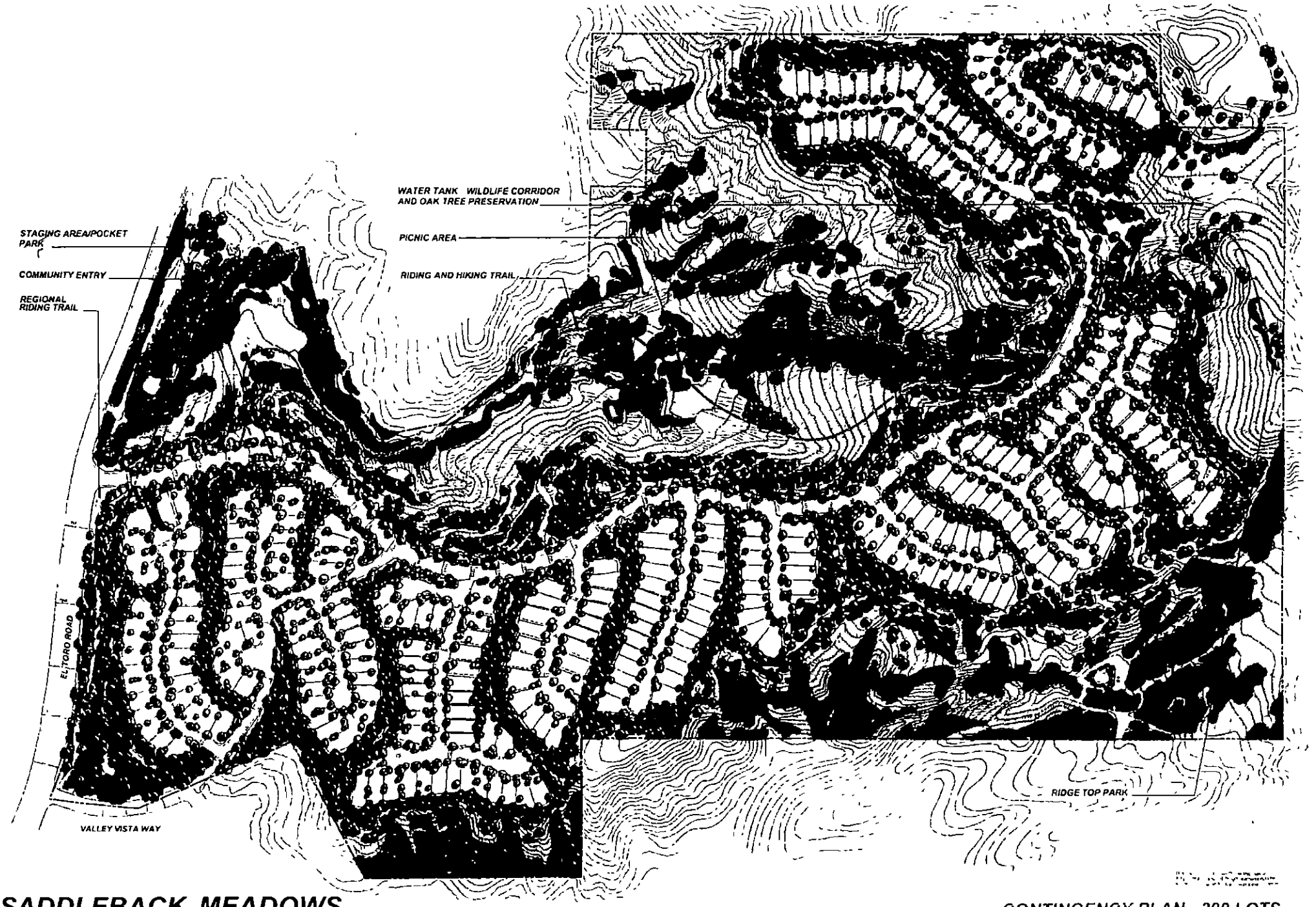
County of Orange P&DS

Scale:

Source

N

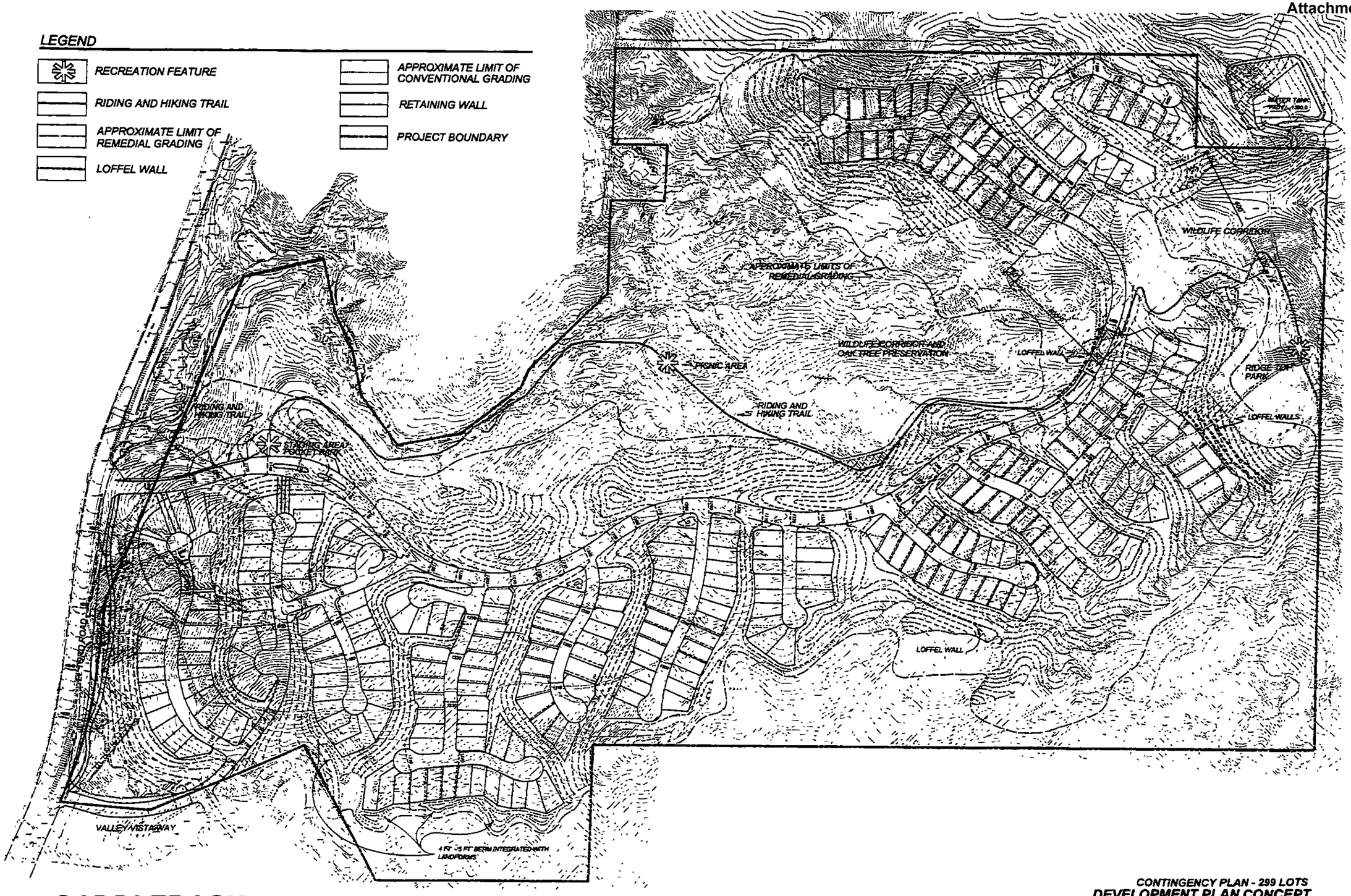
Vicinity Map
Exhibit 2



SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD

CONTINGENCY PLAN - 299 LOTS



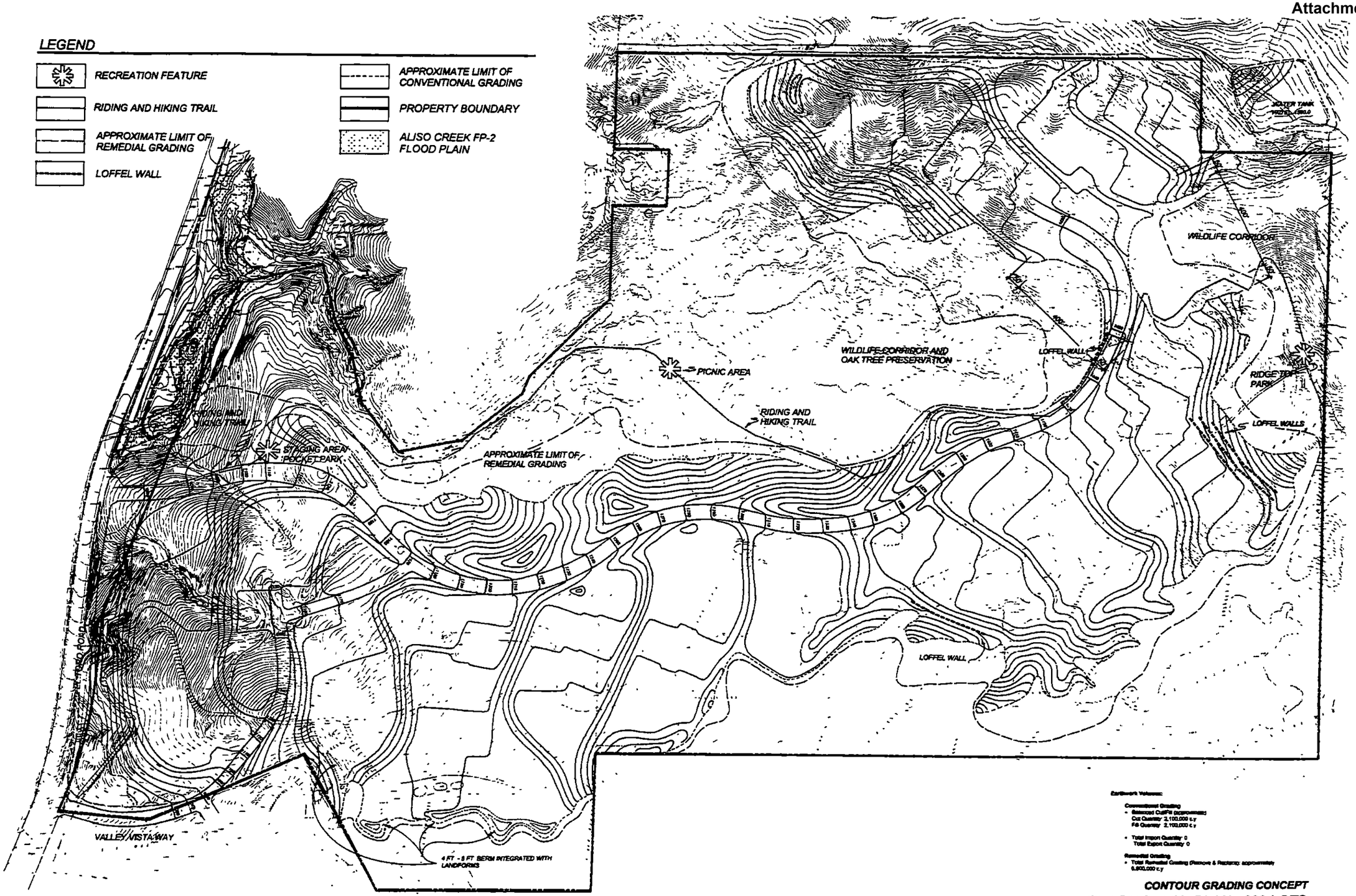
SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

CONTINGENCY PLAN - 299 LOTS
DEVELOPMENT PLAN CONCEPT
AREA PLAN - SITE DEVELOPMENT PERMIT

Exhibit 4

MICHAEL MADDEN ASSOCIATES
JUNE 22, 1998
0 50 100 200 400



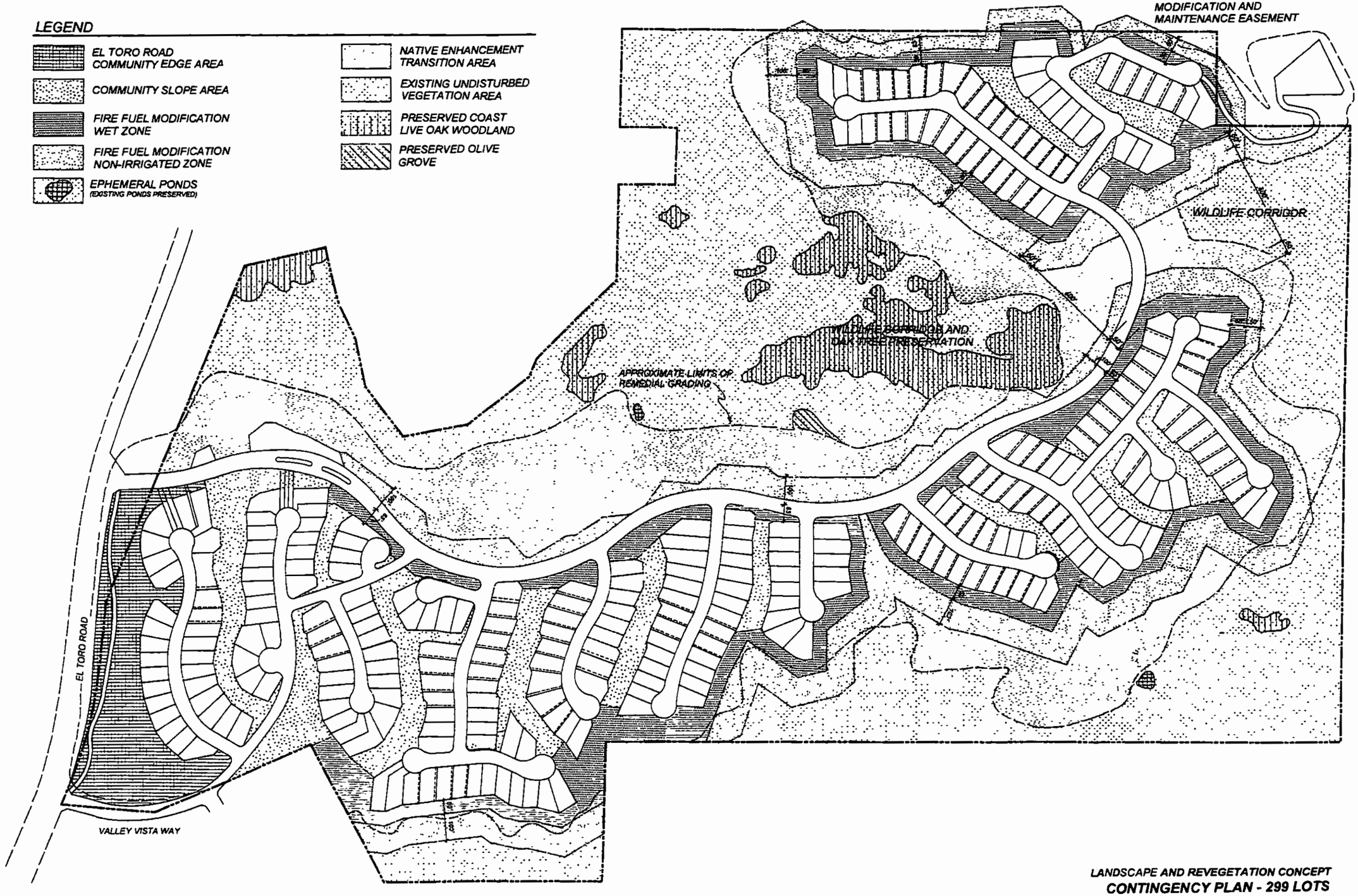
CONTOUR GRADING CONCEPT
CONTINGENCY PLAN - 299 LOTS
AREA PLAN 98-2

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

MICHAEL BADDEN ASSOCIATES
LAND PLANNING AND DESIGN LAGUNA BEACH, CA
JUNE 22, 1998
0 50 100 200 400

Exhibit 5



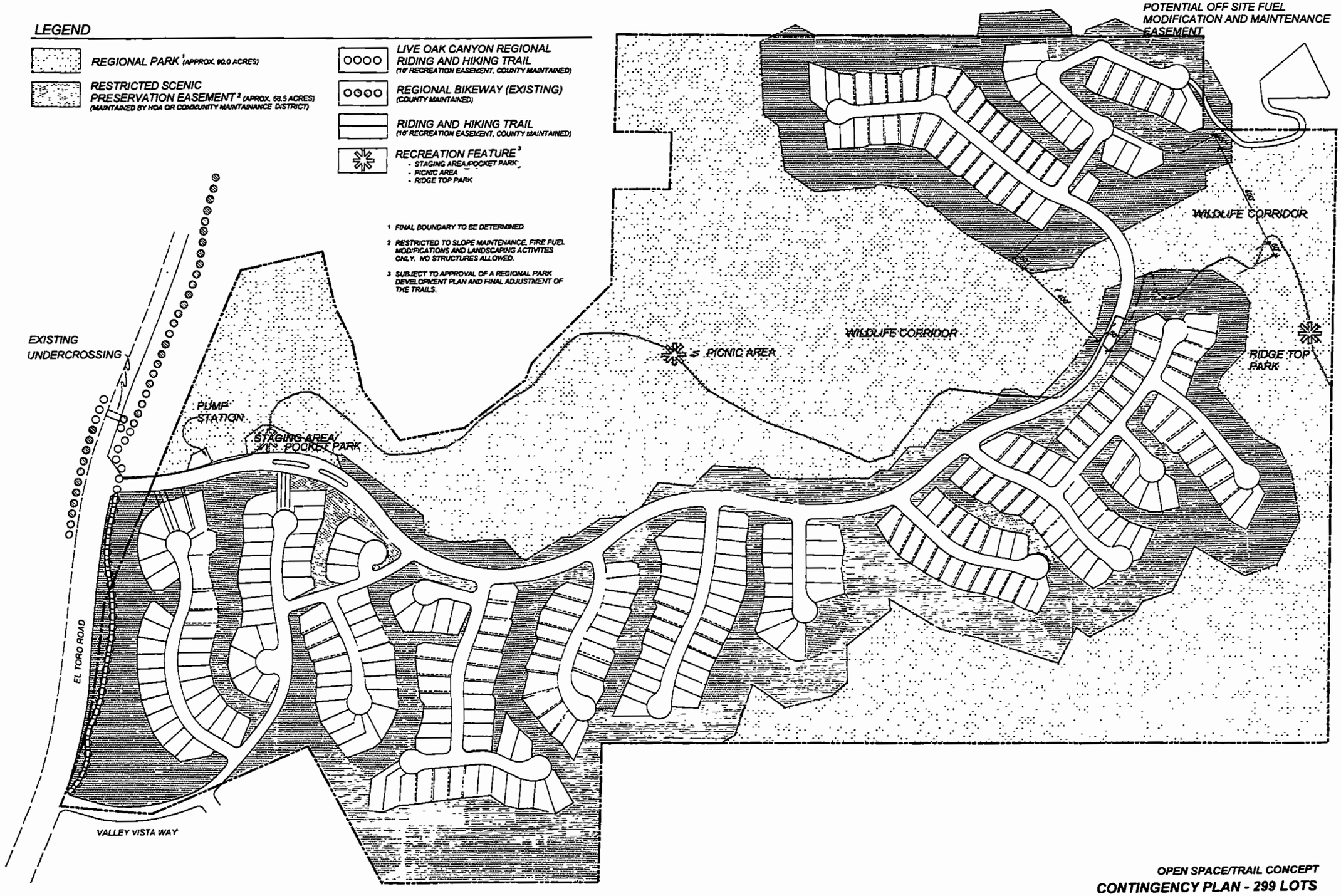
LANDSCAPE AND REVEGETATION CONCEPT
CONTINGENCY PLAN - 299 LOTS
AREA PLAN 98-2

Exhibit 6

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

MICHAEL MADDEN ASSOCIATES JUNE 22, 1993 0 50 100 200 400



OPEN SPACE/TRAIL CONCEPT
CONTINGENCY PLAN - 299 LOTS
AREA PLAN 98-2

Exhibit 7

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

MICHAEL MADDEN ASSOCIATES
LAND PLANNING AND DESIGN LAGUNA BEACH CA

JUNE 22, 1990

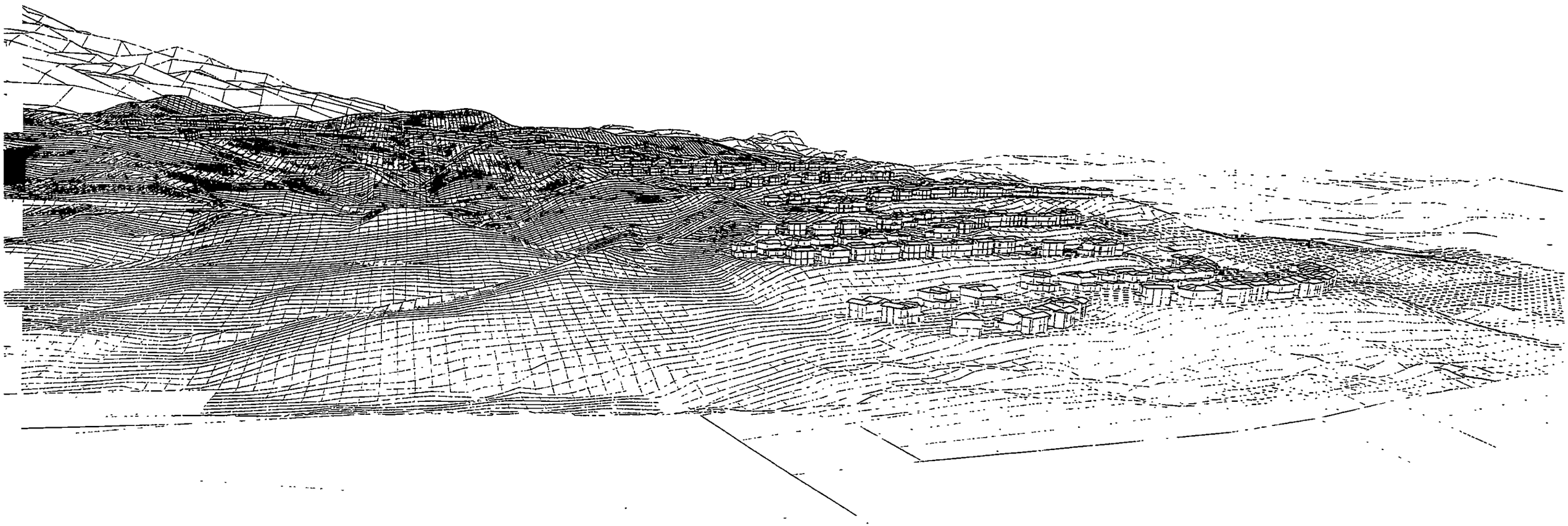
0 50 100 200 400

Saddleback Meadows
299 Lots

Overall View
From Ramakrishna Monastery

Exhibit 8

Saddleback Meadows
299 Lots

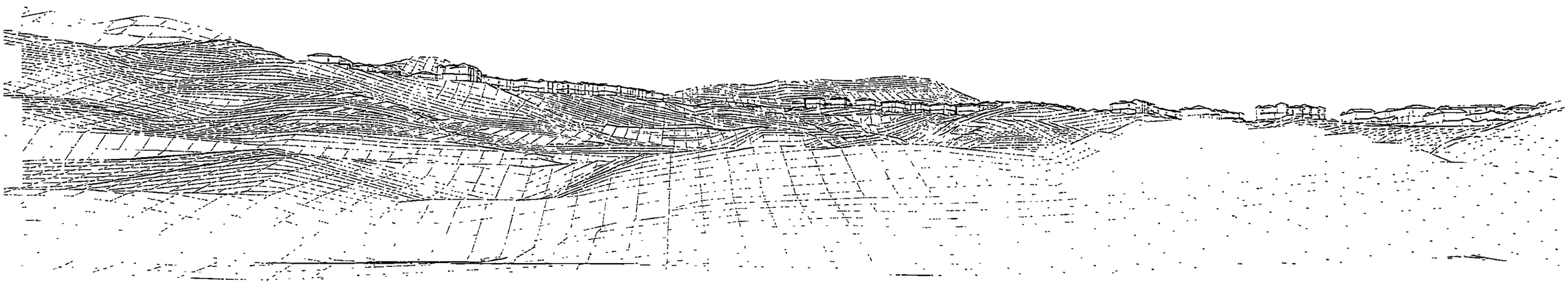


Birds Eye View
From Portola Hills

Exhibit 9

Attachment D

Saddleback Meadows
299 Lots



East View
From St. Michael's Abbey

Exhibit 10

APPENDICES

APPENDIX A

Contingency Plan – 299 Lots
Area Plan 98-2

SADDLEBACK MEADOWS

CONTINGENCY PLAN – 299 LOTS
AREA PLAN 98-2

Prepared for:

County of Orange
Planning and Development Services Department

Prepared by:

TPG Management, Inc.
On behalf of
California Quartet, Ltd.

August 4, 1988

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Landscape/Re-vegetation Concept Description	7

EXHIBITS

Development Plan Concept

Open Space/Trail Concept

Contour Grading Concept

Landscape/Re-vegetation Concept

ATTACHMENTS

Attachment A: Saddleback Meadows Rural Character Statement

AREA PLAN 98-2
SADDLEBACK MEADOWS
CONTINGENCY PLAN- 299 LOTS

BACKGROUND

This plan has 299 single-family detached dwelling units and originated from the "Staff recommended" 299-Lot Alternative (a.k.a. Alternative 8 in EIR No. 561 and presented as Alternative 4 in the recently certified SEIR No. 566). However, this Area Plan submittal is nearly *identical* to a plan (referred to as "Alternative 9") submitted for consideration before the Board of Supervisors on October 22, 1996. The differences between Alternative 9 and the proposed "Contingency Plan - 299 Lots" can be summarized as follows: 1) A reduction in density from 318 lots, to 299 lots; 2) Significant buffering and landform berming has been added along the project edge adjacent to the Ramakrishna Monastery; 3) The need for three extensive "loffel walls" near the project edge adjacent to the Ramakrishna Monastery have been eliminated; and 4) The majority of side-yard retaining walls throughout the project have been eliminated. The intent of this alternative Area Plan, as was its predecessor, Alternative 9, is to provide a project that directly responds to the view impact concerns expressed by St. Michael's Abbey, the Ramakrishna Monastery, the Hidden Ridge Community, and to a lesser degree, Portola Hills. This Area Plan also incorporates community-wide design concepts, elements and features reflective of a "*rural-like*" character within the context and constraints of the site and the developer's objectives. These design elements and features were also first presented at the July 30, 1996 Planning Commission Hearing, in a document entitled "Saddleback Meadows Rural Character Statement", a copy of which has been included in this document.

DESCRIPTION

The average lot size for this project is approximately 6,672 s.f., with a minimum lot size of 5,000 s.f.. Access to the project would be provided via a gate guarded private street off El Toro Road immediately south of the existing Aliso Creek/Trail under-crossing structure. An emergency only access connects with Valley Vista Way All habitable structures are proposed to be protected by automatic fire sprinkler systems. The project site is approximately 222.2 acres in size. Total open space exceeds approximately 70%.

The project acreage (222.2 acres) does not include the adjacent off-site water tank site. A water tank with a maximum capacity of 1.4 million gallons, and associated access road, are proposed off-site adjacent to the northeast corner of the project site to provide water service to the proposed project. The proposed water tank site was previously dedicated to the Trabuco Canyon Water District when the existing Final Tract Map was recorded (Tract No. 10692). The water tank will be approximately 30-feet tall, 100 to 110-feet in diameter, and will be bermed,

landscaped, and painted a complimentary color to the surrounding setting. A total of approximately 8 acres of off-site area would be affected as a result of project implementation to accommodate slope area, access roads, related remedial grading, the water tank, and County of Orange fuel modification requirements.

Onsite circulation is proposed with a system of private streets consisting of a primary spine street (56-foot r.o.w.) and a series of cul-de-sacs (41-,45-, and 52-foot r.o.w.) An encroachment easement is required from the County of Orange to accommodate the project access road where it traverses County owned property along the western-most boundary of the site.

The project has been designed to minimize impact on the existing land form. The homes have been located on the relatively level areas in a broad crescent shape flowing along the southern and eastern sides of the site, while the steep terrain of the central canyon area has been left as open space. Development is kept off the eastern and northern major ridgelines bordering the property. A primary design consideration in establishing the rural-like character of Saddleback Meadows is presenting a landscape enveloped community when viewed from the surrounding areas and from within the development. In response to this design intent and the interests of St. Michael's Abbey, the Ramakrishna Monastery and the neighboring Hidden Ridge community, specific grading techniques, site planning, and landscape elements will be incorporated within the project. The intent of these features will be to enhance the views of Saddleback Meadows from the surrounding areas. This will be accomplished through

1. Creative contour grading that emphasizes and expands upon landforms;

2. Berming at select and appropriate locations to blend with natural terrain features while providing screening and buffering views into the project site from St. Michael's Abbey, the Ramakrishna Monastery and Hidden Ridge;

3. Creative site planning techniques that minimize rows of backyards along highly visible edges, incorporates slopes, landscape zones and landforms between homes and the surrounding neighbors, and neighborhood streets that climb with the terrain rather than flat roads common to non-terrain sites; and

4. An aesthetic community-wide landscape program that provides visual enhancement through significant perimeter and interior plantings (plant pallets will require OCFA approval), responds to seasonal changes, and provides filtered views of the community from the surrounding areas.

This plan goes to great lengths to mitigate off-site views of the project from neighboring properties, specifically St. Michael's Abbey, the Ramakrishna Monastery, and the Hidden Ridge Community. This will be accomplished through a combination of thoughtful landscape design and the extensive use of berming techniques which will be integrated with the landform contouring, especially along the Main Spine Road, and along view sensitive development edges. This

approach will also enhance the project's edge conditions which will provide for more sensitive edge transitions to the project's large open space areas and O'Neill Regional Park.
A wildlife movement corridor has been incorporated into the project design to address the importance of regional wildlife movement linkages between regionally important open space areas such as O'Neill Regional Park, Whiting Ranch Wilderness Park and the Cleveland National Forest. This plan utilizes an east/west corridor alignment similar to that shown in the Foothill/Trabuco Specific Plan. This wildlife corridor, which bisects the project (called the central corridor), is a component of a three corridor concept which together is designed primarily to accommodate small and medium size mammals and birds, but would not preclude the occasional potential movement of large mammals as well. This corridor is comprised of a minimum 400' wide wildlife corridor with 50' setbacks located on either side. The onsite wildlife corridor is proposed to utilize an at-grade crossing (400') where the wildlife corridor traverses the development's main spine road. Due to the low level of traffic on this end of the project, the at-grade crossing is not anticipated to inhibit wildlife movement. Loffel walls are used in select locations to minimize the extent of manufactured slopes. Loffel walls allow for the growth of plant materials on and around the wall, eventually helping to screen the wall behind a blanket of vegetation.

Statistical Summary*

ONSITE	ACREAGE	% OF SITE
Residential Lots	45.8	21%
Streets (private)	17.8	8%
Regional Park	90.0	41%
Restricted Scenic Preservation Easement	68.5	30%
Subtotal	222.2	100%

* Acreages and percentages are approximations subject to refinement at the Tentative Map/Final Map stages.

OPEN SPACE/ TRAIL CONCEPT

The proposed Open Space/Trail Concept for Saddleback Meadows incorporates a variety of refinements which result in minimizing environmental impacts. In response to the Natural Communities Conservation Program (NCCP) goals and objectives, the project provides for a viable Wildlife Movement Corridor incorporated into the design of the project providing access from the Aliso Creek Corridor to O'Neill Regional Park. The design proposes the primarily undisturbed open space areas, along with re-vegetated slope areas of the project, for fee dedication to serve as an extension of O'Neill Regional Park Trail connections are provided, linking the project to existing regional riding and hiking trails and bikeways. The project proposes a Trail Staging Area/Pocket Park, Ridgetop Park and the dedication of a significant amount of natural and re-vegetated open space. The proposed Trail Staging Area/Pocket Park provides a

direct link to the regional trail located on El Toro Road and the other proposed recreation features (Ridgetop Park and the Picnic area).

The Open Space/Trail Concept is composed of the following major elements:

1. **Trails**
   a. Live Oak Canyon Regional Riding and Hiking Trail
      - Project proposes the dedication of a 16' wide Recreation Easement along the El Toro Road frontage (approx. 1350 l.f). Final Alignment is subject to approval by the Manager, Harbors Beaches and Parks.

      - Maintenance for this Trail/Recreation Easement will be the responsibility of the County of Orange.

   b. Local Riding and Hiking Trail
      - Project proposes the dedication of a 16' wide Recreation Easement (approx 4800 l.f., for local riding and hiking trail purposes, of which approximately 1,550 l.f traverses Restricted Scenic Preservation Easement areas , while approximately 3,250 l.f. will traverse the Regional Park dedicated areas. Final Alignment is subject to approval by the Manager, Harbors Beaches and Parks.

      - This plan provides a linkage from the proposed Trail Staging Area/Pocket Park to the Live Oak Canyon Regional Riding and Hiking Trail on El Toro Road. Another trail will link the proposed Trail Staging Area/Pocket Park to the proposed Ridgetop Park (a.k.a "Bridlewood Look-Out Park") and the "Picnic Area"

      - Maintenance for this Trail/Recreation Easement will be the responsibility of the County of Orange

2. **Regional Park**
   As designated on the Open Space/Trail Concept Map:
      - This category of open space will serve as an extension of O' Neill Regional Park

      - This category of open space encompasses approximately ±90 acres (±41% of the project)

      - As a extension of O' Neill Regional Park, these open space areas, which include the wildlife movement corridor, would be offered for dedication to the County of Orange.
      - The Regional Park will encompass areas which include the following areas which lie outside of the required fuel modification zones: "undisturbed" open space; Native

Enhancement Transition Areas; re-vegetated remedial graded and manufactured slope areas; Oak Woodlands; Oak Restoration Areas; undisturbed portions of the existing Olive Grove; as well as the preserved existing and re-created Ephemeral Ponds.

- Coastal Sage Scrub, Oaks, and other biological resources requiring on-site mitigation would take place in the areas dedicated for Regional Park purposes

- The proposed Trail Staging/Pocket Park , Ridge Top Park (a.k.a.Bridlewood Look-Out Park) and Picnic Area will be located in the Regional Park extension. These features will be subject to approval of the Regional Park Development Plan.

- The final boundary of the Regional Park and the Riding and Hiking Trail alignments will be subject to the approval of the Manager of Harbors, Beaches, and Parks.

3. Restricted Scenic Preservation Easements

Areas designated as the following (approx. 68.5 acres) on the Open Space/Trail Concept Plan Map are to ensure that the scenic qualities of these edge areas are not impacted in the future by structures and development after they have been established.

- El Toro Road Community Edge Area
- Fuel Modification Zones (Wet Zone and Non-Irrigated Zones only)
- These areas will be maintained by an HOA and/or Community Maintenance District.
- Community slopes(Between residential lots and Roads).

CONTOUR GRADING CONCEPT

The grading concept for this alternative reflects a contour grading approach which utilizes techniques emphasizing variations and takes advantage of the curvilinear street and lotting design, rather than repetitive uniformity. Contour grading and the creative use of berms and landforms along the community's spine road provide for screening and buffering of views into the project site from various offsite locations. Numerous design features work together to establish the rural-like character. Contour grading with landform enhancement provides for edge treatments responsive to the natural terrain. The community's spine road alignment responds to the terrain and allows for landscape plantings on both sides to create the rural-like experience while driving through the community. Creative site planning responds to the intended rural character with setbacks from the spine road This allows the project a more natural and organic ambiance in keeping with the rolling hillside setting These contour grading techniques consist of the following.

1 Integrate grading into the context of existing topography using horizontal rounding of contours;

2. Blending of manufactured contours with natural existing contours;

3. Rounding at the top and toe of slopes to avoid harsh transitions, and

4. Design of development enclaves of varying size and irregular spacing to avoid a uniformly "terraced" appearance.

Earthwork Volumes:

Conventional Grading

- Balanced Cut/Fill (approximate)
  Cut Quantity: ±2,100,000 c.y.
  Fill Quantity: ±2,100,000 c.y.

- Total Import Quantity: 0
  Total Export Quantity: 0

Remedial Grading

- Total Remedial Grading (Remove & Replace): approximately ±6,800,000 c.y

MAXIMUM GRADING STATISTICS

Manufactured Slopes	10-20 ft.	Over 20 ft.	Highest
Building Lots (with Type C slopes)*	N/A	N/A	N/A
Type B Slopes** (between building lots)	0 L.F.	5,700 L.F	50 ft.
Roads	2,500 L.F.	3,100 L.F	120 ft.

Contour Elevation Changes	10-20 ft.	Over 20 ft.	Highest
Building Sites	92 places	134 places	80 ft.
Roads	4,250 L.F.	7,300 L.F.	91 ft.

Retaining Walls	0 - 6 ft.	Over 6 ft.	Highest
	3,500 L F	N/A	6 ft.

Loffel Walls	0 - 6 ft.	Over 6 ft.	Highest
	0 L.F.	1,640 L.F.	40 ft.

* Type "C" slopes are owned and maintained by private owners
** Type "B" slopes are owned and maintained by the H.O.A./Community Maintenance District

Note: These figures are approximations subject to refinement at the Tentative Map and Final Map stages.

LANDSCAPE / REVEGETATION CONCEPT

The Landscape / Revegetation Concept for Saddleback Meadows seeks to integrate the landscape of the proposed project with the site's existing setting and that of the surrounding foothill region The use of landscape materials (with native and introduced plant pallets approved by the OCFA), and the manner in which the landscape design concept is integrated into the project will reinforce the ability of Saddleback Meadows to respond to the following.

1. Views into the community from surrounding properties;
2. Views from within the Saddleback Community;
3. The desire to create a community character which reflects the transitional nature of the property from a suburban to semi-rural setting.

Interspersing primarily sycamore tree groupings at strategic locations throughout the project will blend the different landscape zones and integrate this community into the surrounding preserved natural open space areas. A predominant image of nature, open space and natural vegetation will be accomplished via:

1. Tall trees and shrub massings planted on slopes between the residential enclaves and within natural open spaces, on slopes between homes, and along community streets;

2. A priority given to landscape plantings, i.e views of the community shall be through the landscape which blankets the architecture of the neighborhoods, thus allowing the landscape (incorporating Sycamores, Oaks, and other appropriate trees) to predominate over the built environment, and

3. Side slope and street tree plantings in the neighborhoods to provide for visible tree canopies above the roof lines.

4. An interlace of the natural and introduced landscape as one fabric.

The Landscape Concept consists of five (5) functional, yet integrated, areas and zones as shown on the Landscape / Revegetation Concept Plan. These areas and zones are as follows

1) El Toro Road Community Edge Area

The El Toro Road Community Edge area will play a key role in providing a physical and visual buffer for the project from off-site views. Predominantly manufactured slopes are planned along El Toro Road. In addition, a key component of this edge is the preservation of Aliso Creek and it's existing riparian habitat along El Toro Road, just north of the proposed main project entry point. Therefore, this community edge adjacent to the road will be landscaped with introduced and native compatible plants reflecting and continuing the riparian landscape found along the Aliso Creek/El Toro Road Corridor. The California Sycamore, commonly found in riparian areas, will be the major slope tree along the El Toro Road Community Edge

Further up the manufactured slope, the landscape will transition from riparian plants to ornamental and native compatible plants suitable for erosion control and for buffering and screening. Tree plantings at side-yard property lines of the residential lots located at the top of slopes will reduce the visual impact of dwellings when viewed from off-site. Meanwhile these tree groupings are intended to maintain views for individual lots. Additionally, this edge treatment is designed to provide visual screening of the project from vehicles traveling along El Toro Road.

2) Community Slope Area

Manufactured slopes will be landscaped to visually enhance the project, to control erosion, and to provide buffering/screening where appropriate and feasible. Trees will be located at the top of slopes and clustered near side-yard property lines of residential lots as well as on the slope itself. Trees planted on the slope will take into consideration the maximum tree height at maturity relative to its vertical location to the top of slope, so that views from residential lots will not be impaired when slope landscaping reaches full maturity. This will blend the manufactured on-site slopes with off-site natural areas, integrating the community landscape into the surrounding environs. California Sycamore and some Coastal Live Oak trees will be used in strategic locations throughout the community slopes, continuing the community landscape theme.

Major oak woodland areas and areas of the olive grove which are not impacted by development and/or remedial grading activities are identified on the Landscape/Revegetation Concept Plan as preserved. These areas identify major preserved tree stands and tree groupings only For identification of individual preserved and impacted oak trees, refer to Sweetwater Environmental Biologists' Oak Tree Inventory, dated December 21, 1995

3) Fire Fuel Modification Zones

The proposed project is within a designated "Special Fire Protection Area", consequently, the development and construction of the project are subject to requirements designed to mitigate the increased fire hazard (Ordinance 3960). The Orange County Fire Authority (OCFA) requires a fuel modification program along all edges of residential development exposed to fire hazard areas. The fuel modification program addresses three zones consisting of a "Setback Zone", "Wet Zone", and a "Non-Irrigated Zone", as shown on the Landscape and Revegetation Concept Plan Map Maintenance responsibility for the setback zone lies with the private owner Maintenance responsibility for the other zones will be with the H.O.A./ Community Maintenance District.

Saddleback Meadows' residential edges contain both upslope and downslope conditions with a combination of both manufactured and natural undisturbed slopes. The intent of the fuel modification is to utilize these slopes as a transition area between natural open space (fire hazard areas) and the residential edge and to provide an acceptable level of fire safety. The revegetated portion of these slopes will be landscaped using native compatible plant species which will meet

the public safety goals of the OCFA, reinforce the naturalized appearance of the manufactured slopes, and satisfy the aesthetic requirements of the project. Fire Fuel Modification Zones are designed to reflect the native enhancement transition zone criteria for plant material selection The plant palettes for both of the Fire Fuel Modification Zones and the Native Enhancement Transition Zone overlap and contain many of the same species and varieties of plants These plant pallets will be required to meet the approval of the OCFA.

Setback Zone - Is a twenty-foot (20') wide area within the rear yard setback of all residential lots abutting the fuel modification zone. No combustible construction or materials will be allowed in this zone. This zone will be maintained by the individual homeowner. (Not shown on the Landscape / Revegetation Concept Plan, see Preliminary Fuel Modification Plan).

Wet Zone - is a fifty-foot (50') wide landscape area, beginning at the residential rear yard property line. This zone includes an automatic irrigation system and low fuel fire resistive, native compatible plants.

Non-Irrigated Zone - Fire fuel modification zones are 100' wide. However, several upslope areas with 50' widths will be permitted with O.C.F.A. approval. In natural undisturbed slopes, existing native planting will be non-irrigated, pruned and thinned. The OCFA requires that all "dead and dying" materials be removed, pruned and thinned in non-irrigated zones Manufactured slopes will be **temporarily** irrigated and landscaped with native and native-compatible plant materials. Landscaping is intended to naturalize over time with irrigation to be abandoned upon establishment and naturalization.

Application of the Orange County Fire Authority's (OCFA) fuel modification criteria to the area located along the upper north-easterly project boundary, dictates that the fuel modification zone traverse off-site onto private property. This will require that an easement be obtained from the adjacent property owner, for the purposes of fuel modification, prior to the issuance of a grading permit. Maintenance responsibility for any off-site fuel modification zones will be the same as for on-site fuel modification zones (i.e. H.O.A. / Community Maintenance District)

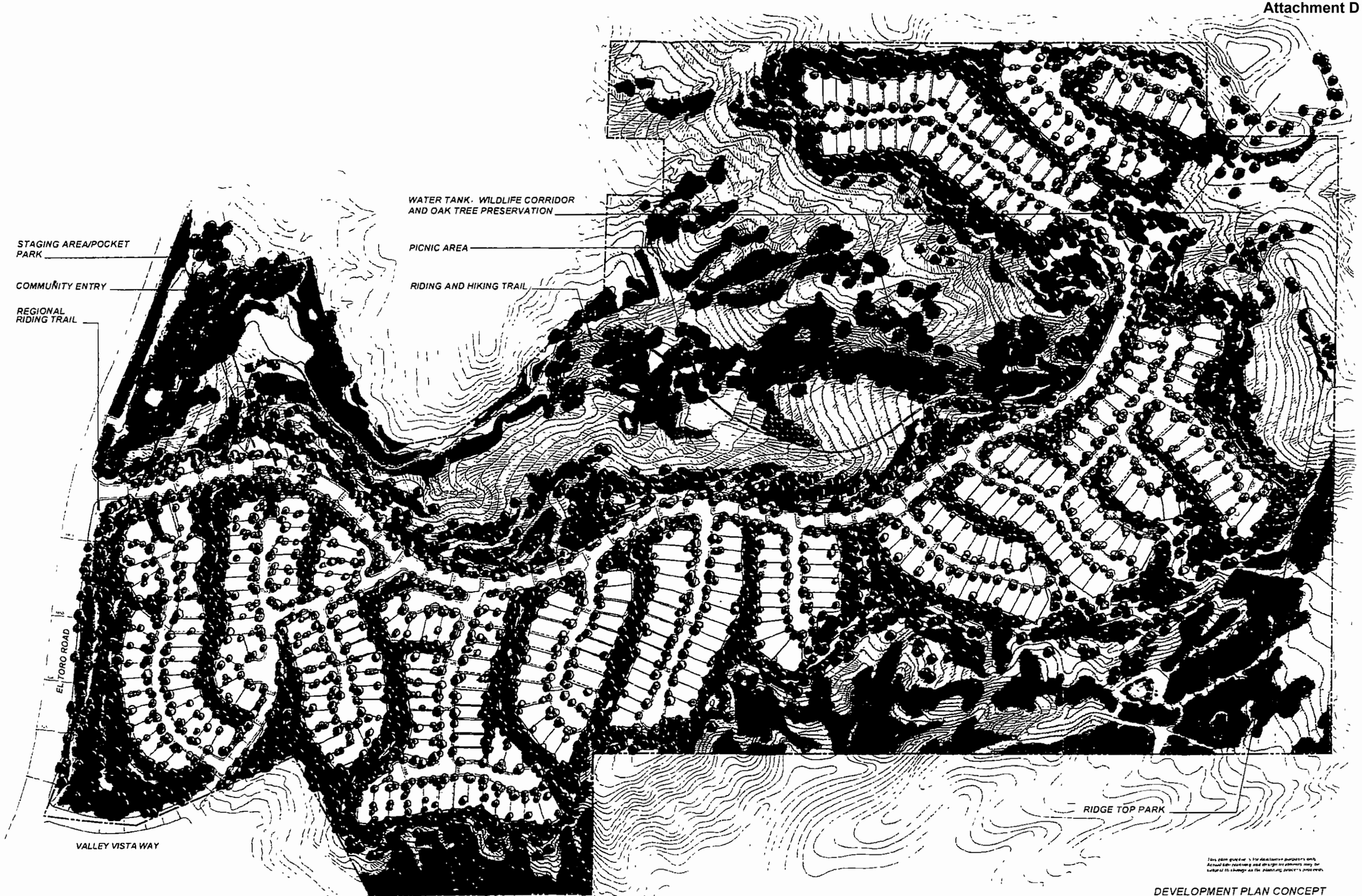
4) Native Enhancement Transition Area

Natural areas disturbed by remedial grading and located within designated open space areas will require revegetation with native or naturalized plant material to re-establish the previous coastal sage scrub (CSS) A high priority will be placed upon selecting plant material which is indigenous to the undisturbed natural areas and surrounding areas and which will provide a landscape with as much habitat value as is practical.

5) Existing Undisturbed Vegetation Area.

Open space areas undisturbed by remedial grading activities will be preserved and incorporated into the overall landscape concept. Only minimal clean-up of abandoned agricultural uses , if

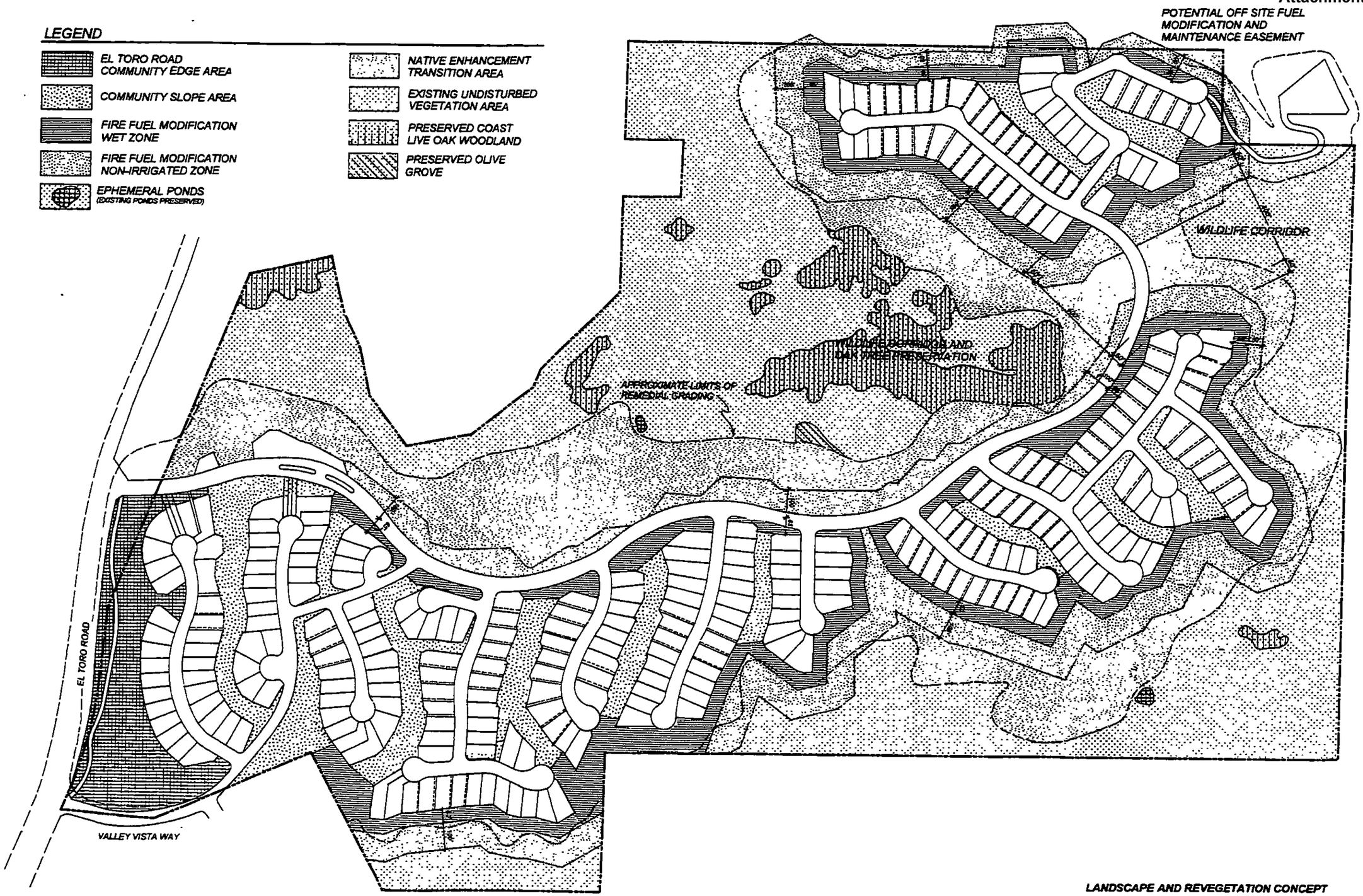
necessary is planned. The elimination of livestock grazing on the property will allow the natural transition and succession of grasses to CSS and Chaparral plant communities over time. The majority of Oak Woodland mitigation will occur in this area within stands of existing non-native vegetation.



DEVELOPMENT PLAN CONCEPT
CONTINGENCY PLAN - 299 LOTS
AREA PLAN 98-2

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

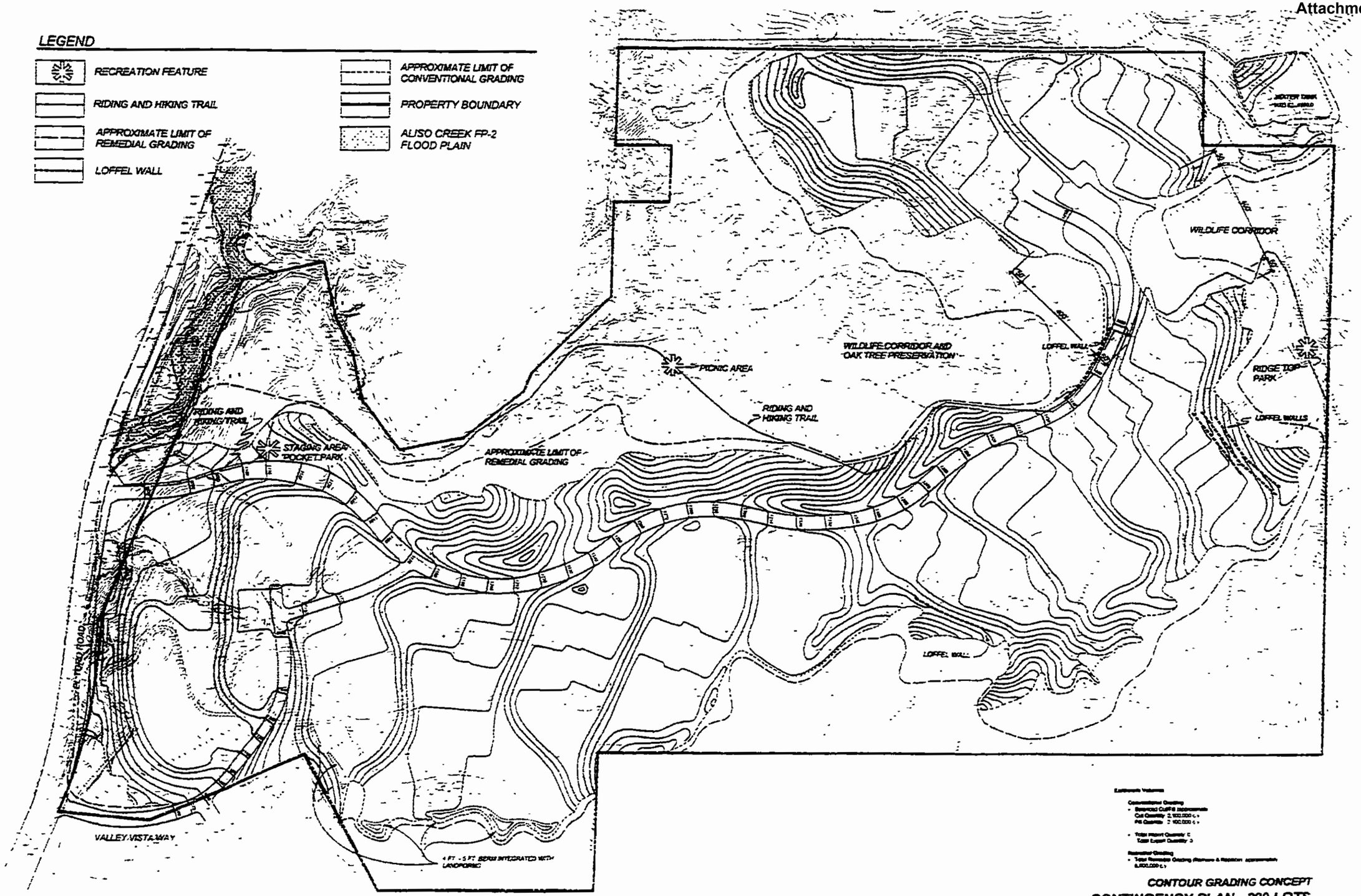


SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

LANDSCAPE AND REVEGETATION CONCEPT
CONTINGENCY PLAN - 299 LOTS
AREA PLAN 98-2

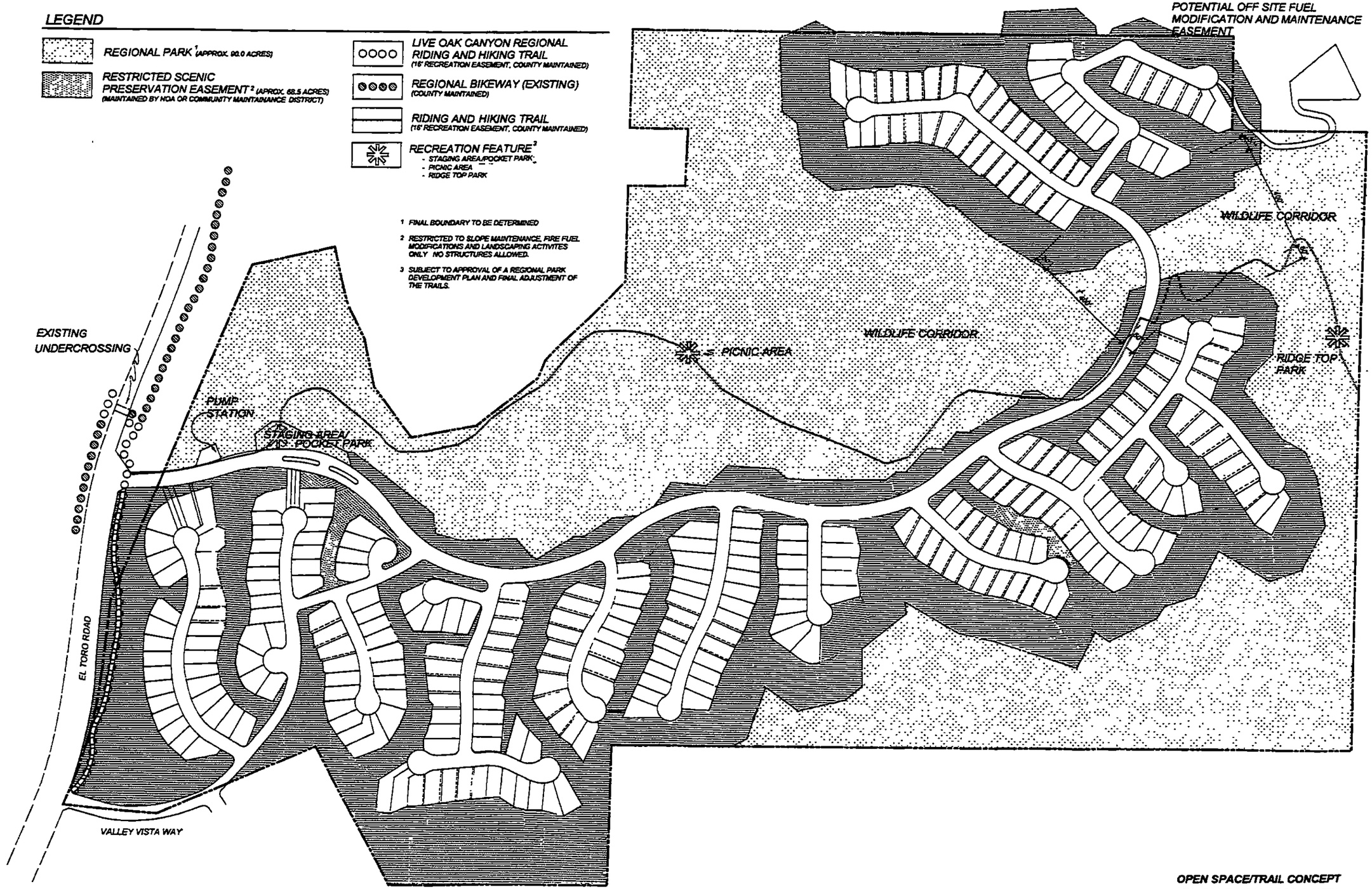
MICHAEL BADDEN ASSOCIATES — JUNE 22, 1998 — 0 50 100 200 400



CONTOUR GRADING CONCEPT
CONTINGENCY PLAN - 299 LOTS
AREA PLAN 98-2

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.



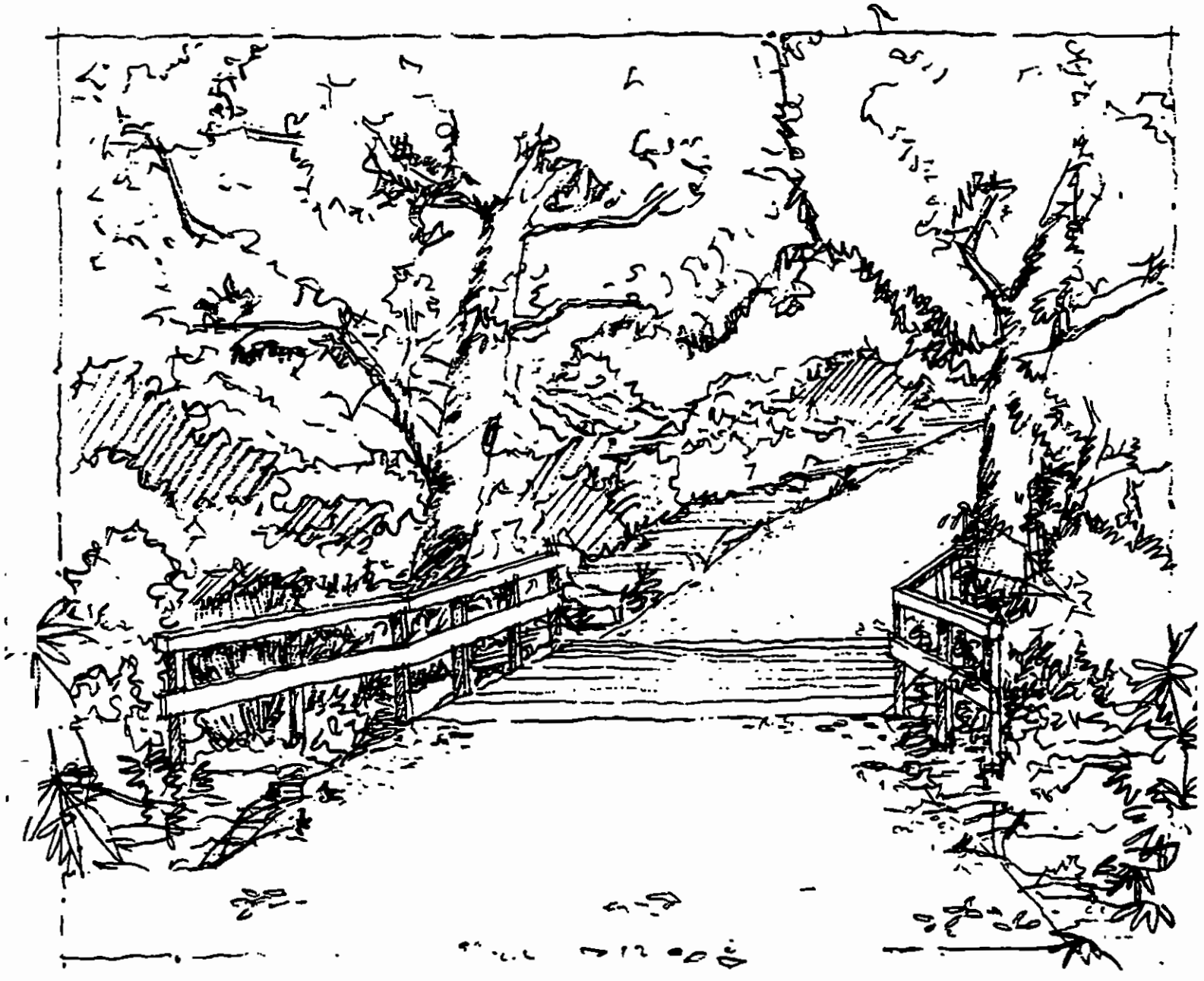
SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

OPEN SPACE/TRAIL CONCEPT
CONTINGENCY PLAN - 299 LOTS
AREA PLAN 98-2

MICHAEL BADDEN & ASSOCIATES — JUNE 22, 1999 — 0 50 100 200 400

ATTACHMENT "A"



SADDLEBACK MEADOWS
RURAL CHARACTER STATEMENT

Prepared for:
California Quartet, Ltd.

SADDLEBACK MEADOWS
RURAL CHARACTER STATEMENT

July 24, 1996

Prepared for:
California Quartet, Ltd.

Prepared by:
Michael Madden Associates

SADDLEBACK MEADOWS
RURAL CHARACTER STATEMENT

Purpose and Intent

The purpose and intent of this "character statement" booklet is to express the preliminary community design concepts that will eventually create the visual and physical character that the Saddleback Meadows community will have. This booklet addresses the basic design elements and considerations necessary in developing any community character, and ties those elements and considerations to the Saddleback Meadows community. It responds to the project teams intent for a rural community theme and character, as well as responding to design considerations expressed by Saint Michael's Abbey, Hidden Ridge residential community, and the Ramakrishna Monastery. It is a preliminary study intended to reflect the underlying design vocabulary that has been a consistent component of all land use and site planning studies conducted for this property.

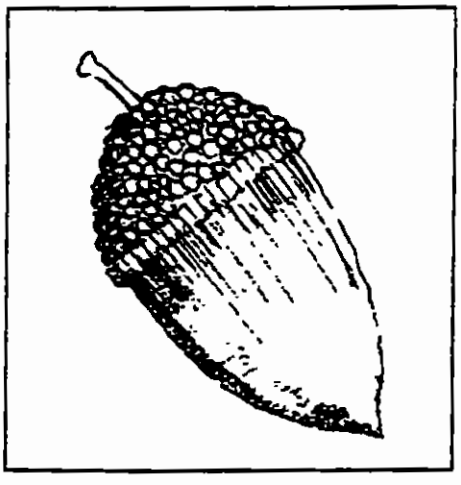
This "Rural Character Statement" is intended to be used as a guideline for community design and as a "tool of measure" to be used by the Planning Commissioners during the review of the Use Permit. The Use Permit requires a precise grading plan, detailed landscape plans, fuel modification plans and programs, architectural plans for all structures, and the precise location of all building and structures.

The planning and design of any proposed community is a combination of the physical site plan on the land and the design parameters initially established relating to the desired community character. The end result is a community whose physical character and composition relates directly with the landscape, streetscape and architectural fabric.

Approaching the Saddleback Meadows project with this philosophy, and with the desire to plan and design a community reflecting the qualities and character of a rural townscape, the initial community design elements establishing the rural character are presented in this booklet.

The "Rural Townscape" Character

The term "rural character" conjures up images of small towns set upon the land amidst a country setting. Winding roads are enveloped in trees and tree canopies. Rolling hills, field walls of stone and rock, woodlands, grasslands and fields surround the towns and provide a separation between each town. Natural areas outside of the towns are enjoyed by the people of the area for hiking, bicycling and horseback riding, exploring and treasure hunting, picnics, and rides in the country. Seasonal color through changing foliage and wild flowers accent the landscape, further emphasizing the character and appeal of the rural townscape and surrounding environment.



Villages and towns are visible and apparent within the landscape, yet blend with the land through a multitude of introduced, as well as natural features and elements. These include.

A. Country roads that transition into a town's main street;
B. Open fields or woodlands filtering into the outskirts of the town through open fields and parks, eliminating the visual boundary of the town and the country;
C. In hillside environments, steep winding streets that climb with the hillside;
D. Streetside elements such as wood rail fencing, simple wooden signs, and old street lamp;
E. The informal arrangement of trees and other plantings, whether curbside or used in other manners, accenting the natural appeal rather than rigid uniformity; and
F. Buildings and related architecture presenting softer earth tone qualities and utilizing materials that blend and are in harmony with the landscape and the natural elements.

The Rural Character of Saddleback Meadows

The character of the Saddleback Meadows community will be observed from two perspectives, these being:

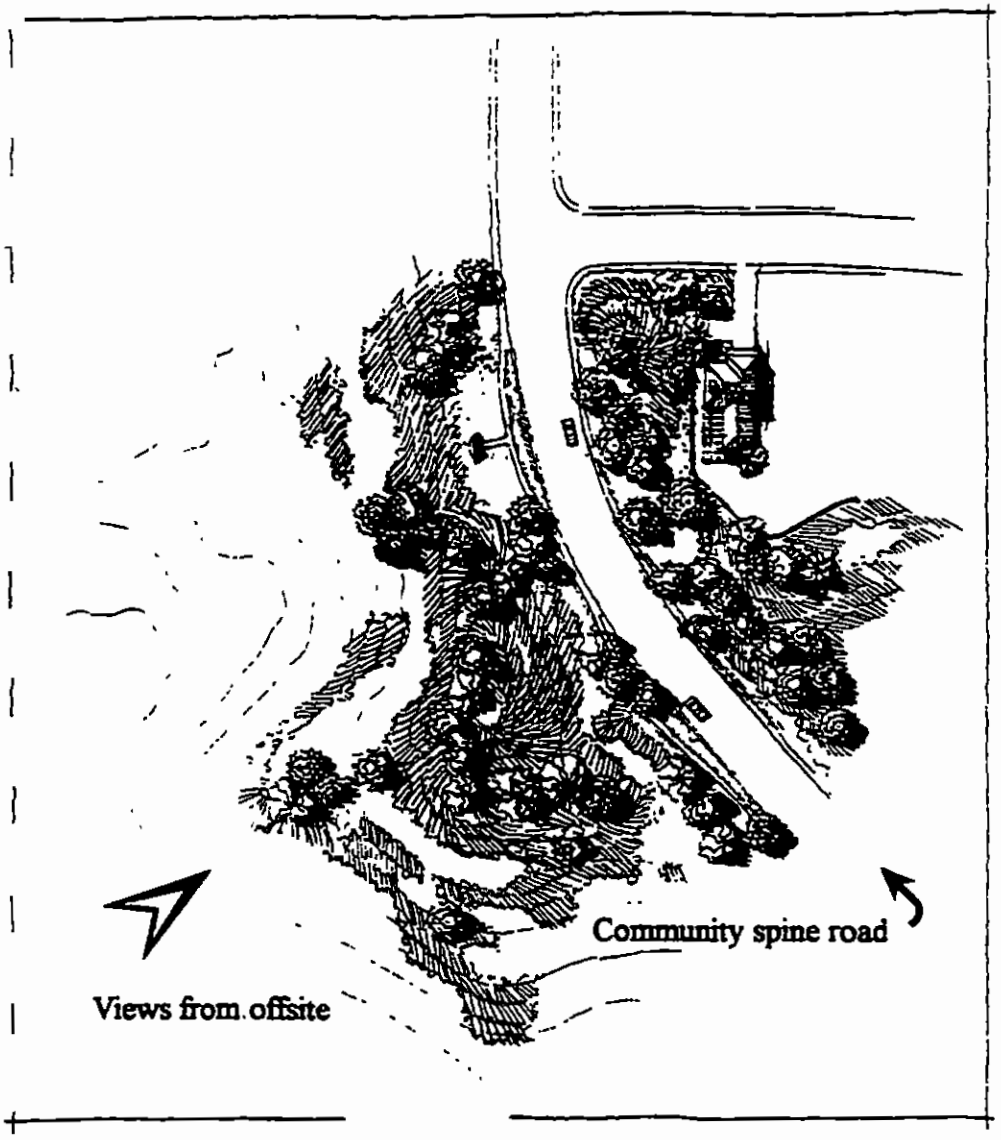
A. The "macro" scale:
    1. Public views into the community from off-site (El Toro Road, Saint Michael's Abbey, Hidden Ridge and the Ramakrishna Monastery); and
    2. Views of the community from within.

B. The "micro" scale:
    1. Views of community elements along highly visible public edges noticeable by the passing public, such as the El Toro Road edge and natural slopes adjacent to Saint Michael's Abbey, Hidden Ridge, and the Ramakrishna Monastery; and
    2. Visual elements and design details throughout the community noticeable from within the community.

The Saddleback Meadows community will incorporate community wide design elements and features reflective of the rural character. These features and elements will respond to the "macro" and "micro" levels of concern, as well as addressing the design considerations expressed by the adjacent neighbors.

A primary design consideration in establishing the rural character of Saddleback Meadows is presenting a landscaped enveloped community when viewed from the surrounding areas and from within. In response to this design intent and the interests of the Abbey, Hidden Ridge and the Monastery, specific grading techniques, site planning, and landscape elements will be incorporated within the plan. The intent of these features will be to enhance the views of Saddleback Meadows from the surrounding areas. This will be accomplished through:

1. Creative contour grading that emphasizes and expands upon landforms;
2. Berming at select and appropriate locations to blend with natural terrain features while providing screening and buffering views into the project site from the Abbey, Hidden Ridge and the Monastery;
3. Creative site planning techniques that minimize rows of backyards along highly visible edges, incorporates slopes, landscape zones and landforms between homes and the surrounding neighbors, and neighborhood streets that climb with the terrain rather than flat roads common to non-terrain sites; and
4. An aesthetic community wide landscape that provides visual enhancement through significant perimeter and interior plantings, providing filtered views of the community from the surrounding areas and responds to seasonal changes.

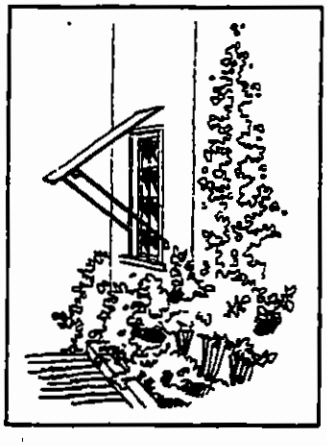


Numerous design features work together to establish the rural character. Contour grading with landform enhancement provides for edge treatments responsive to the natural terrain The community's spine road alignment responds to the terrain and allows for landscape plantings on both sides to create the rural experience while driving through the community. Creative site planning responds to the intended rural character with setbacks from the spine road.

Contour grading and the creative use of berms and landforms along the community's spine road provide for screening and buffering of views into the project site from offsite.

Based upon the above described design considerations, the following design elements will be part of the Saddleback Meadows community to respond to views into the community from the surrounding areas and the desire to create the rural community character:

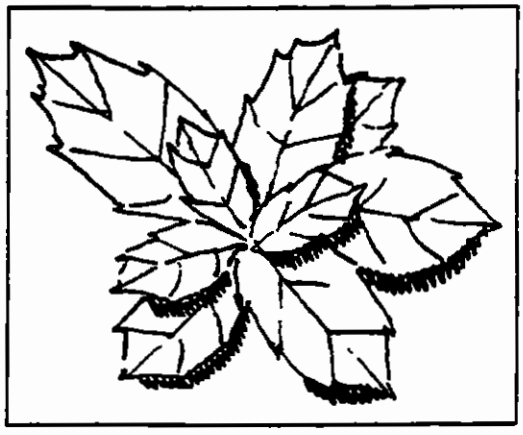
A. Blend the homes, streets and community elements with the natural surroundings. This is accomplished through:
   1.) Color compatibility of architecture with the natural landscape;
   2.) The use of natural and natural-like materials in architecture and streetscape elements;
   3.) Site planning and grading design encouraging landforms and berming, particularly along main community streets, and
   4.) An interlace of the natural and introduced landscape as one fabric.



B. Predominant image of green, nature, open space and plant materials, accomplished via.
   1.) Tall trees and shrub massings planted on slopes between the residential neighborhoods and within natural open spaces, on slopes between homes, and along community streets;
   2.) Priority given to landscape plantings, i.e. views of the community shall be through the landscape which blankets the architecture of the neighborhoods, thus allowing the landscape (incorporating Sycamores, Oaks, and other appropriate trees) to predominate over the built environment; and

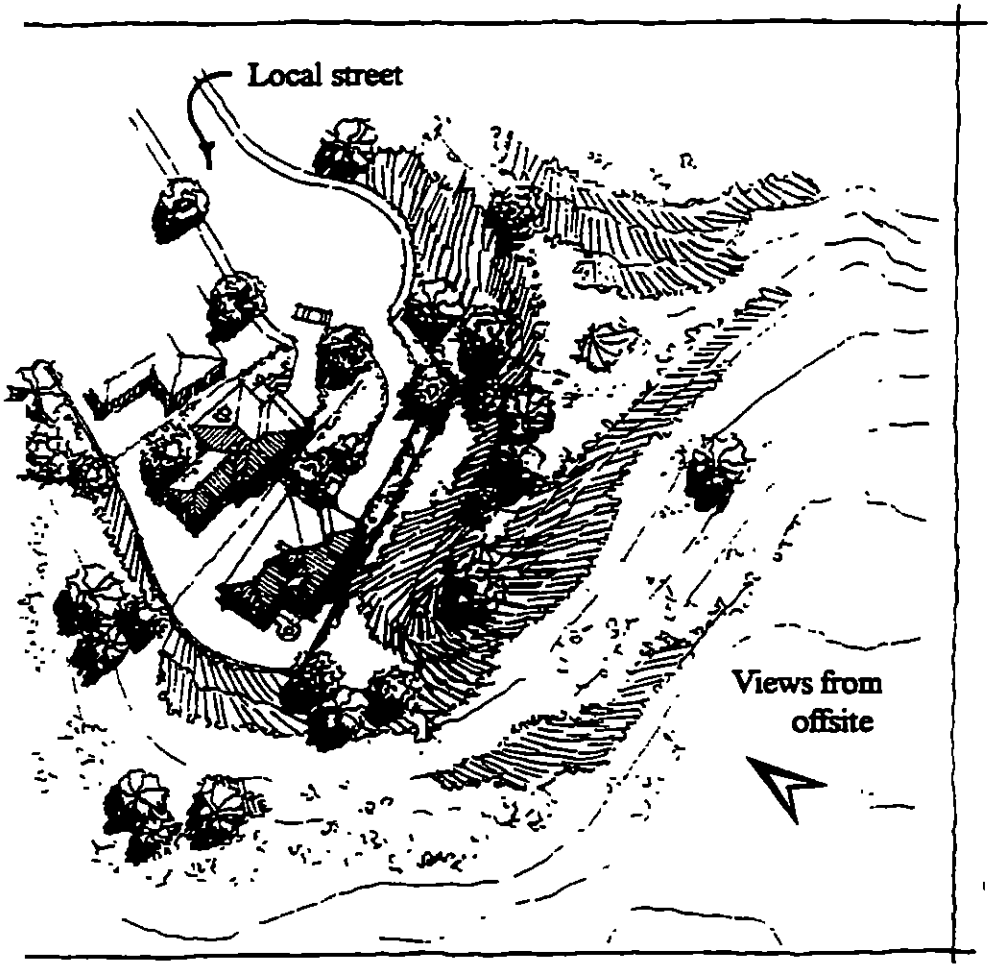
3.) Side slope and street tree plantings in the neighborhoods to provide for visible tree canopies above the rooflines.

The following design parameters will be part of Saddleback Meadows in response to views from within the community and the desire to create the rural community character:

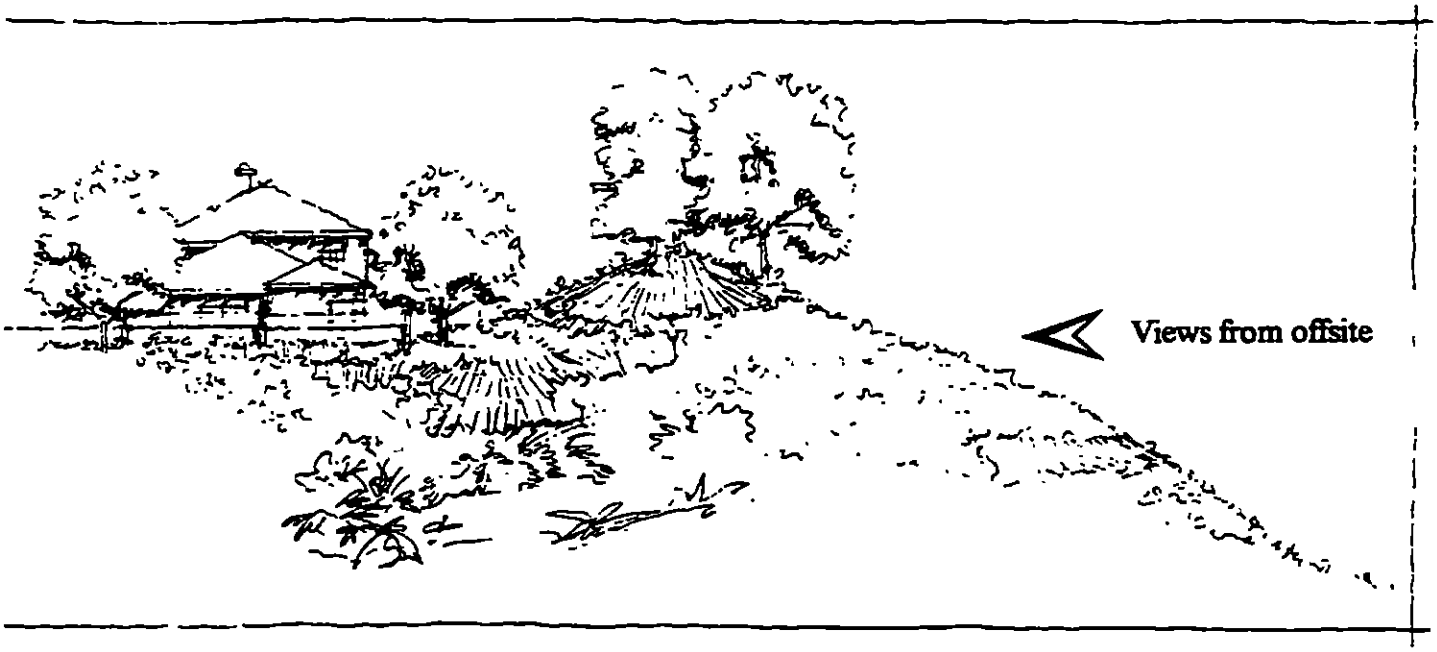


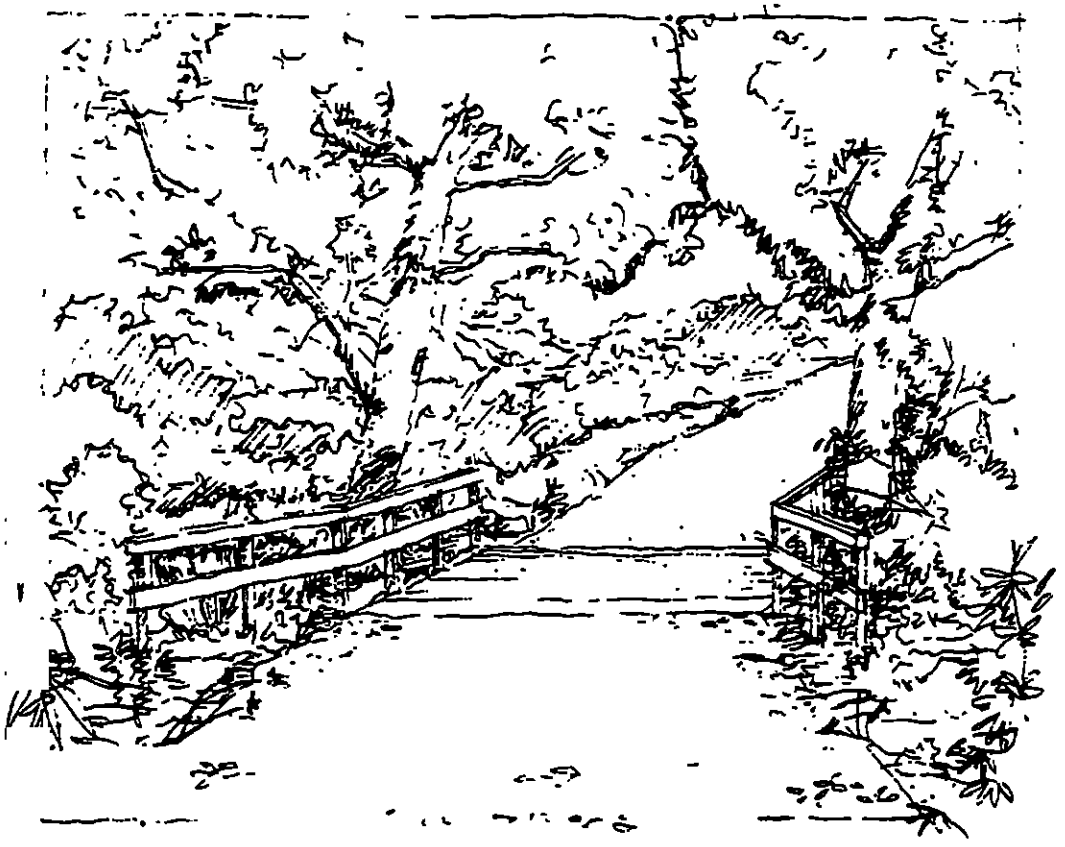
A. View windows into natural open spaces from the community streets and "pocket parks";
B. Informal plantings of landscape elements along the community streets, slopes and within the neighborhoods;
C. Blending of landscape elements and landform features transitioning from the natural to the man-made;
D. Movement in three-dimensions through landforms and plant massings, curvilinear, winding streets, and grade elevation in streets to accommodate the natural terrain,
E. Architecture: roofs, facades, design elements and details having a theme of natural materials and elements; and
F. Visual imagery along the community streets:
    1.) Informal slope plantings with tall canopy type trees for visual enclosure, presence and seasonal color;
    2.) Natural appearing materials such as wood rail fencing, stone/rock walls;
    3.) Narrow meandering walks and trails;
    4.) Minimal but thematic street signs and street lighting, and
    5.) Neighborhood tree planting requirements.

Based upon the above description of design intent in creating the rural character for the Saddleback Meadows community and responding to neighboring design interests, the following pages provide examples of design features and elements of the Saddleback Meadows project.

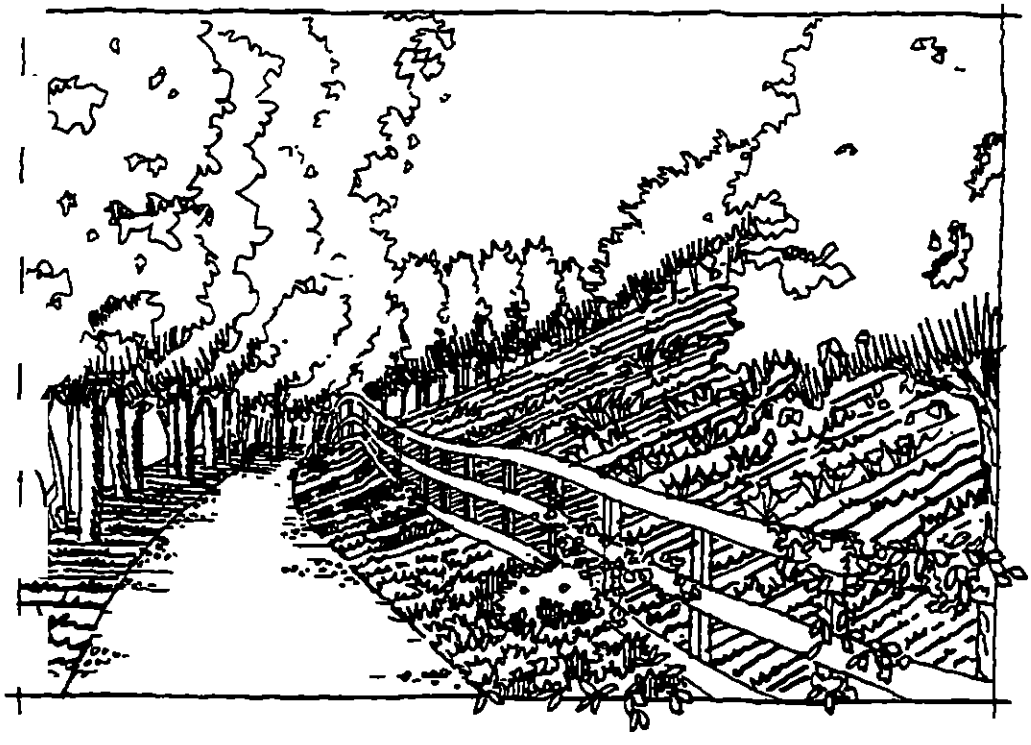


Consideration given to landforms and the replication of the existing terrain features along select project edges provides for a sense of "enclosure" for the neighborhoods while buffering views into the project from surrounding areas.

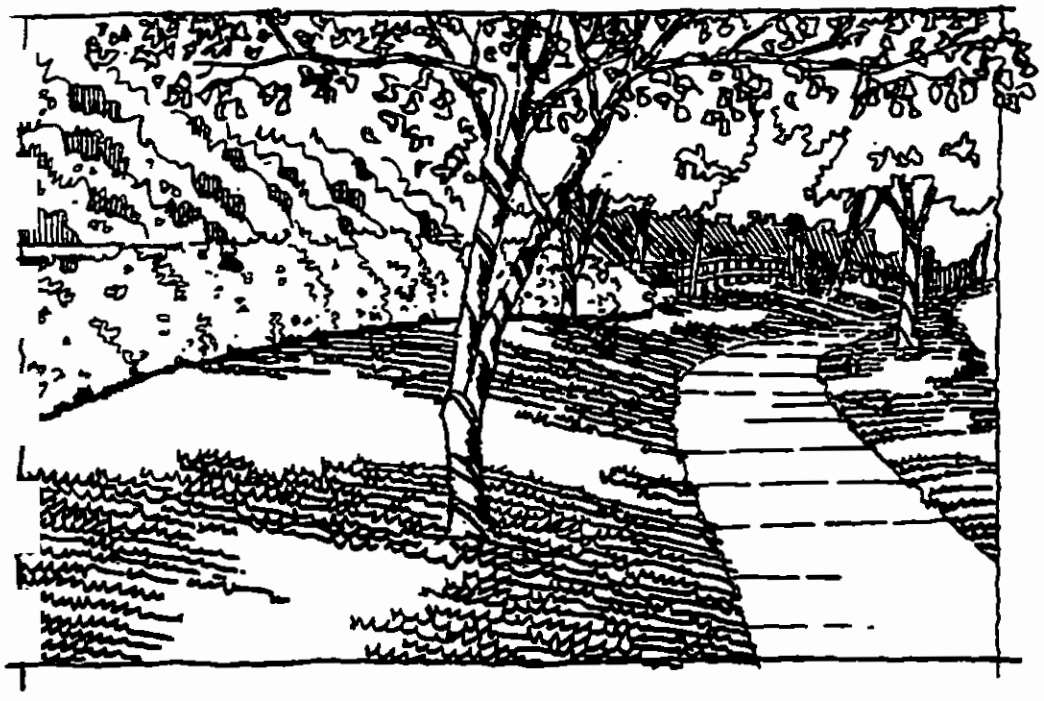




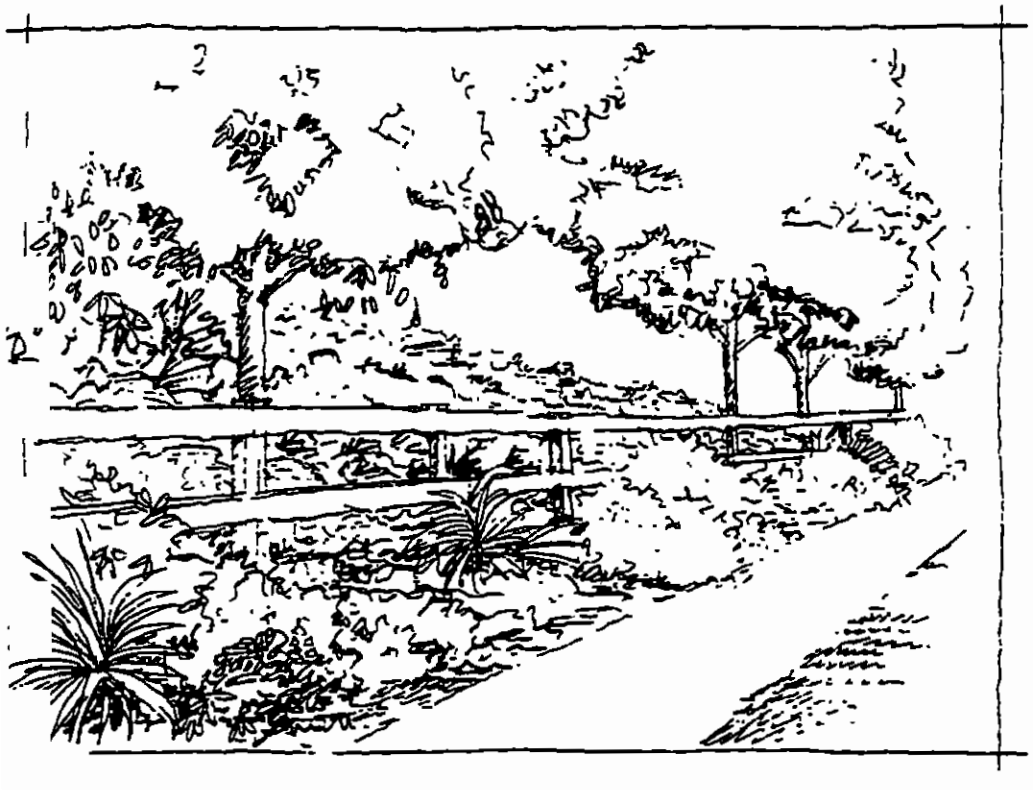
Riding, hiking and bicycling trails provide access to natural open spaces and should feature natural elements and materials. Wooden bridges provide access across swales while visually reinforcing the rural character.



Horse trails and/or bicycle trails can be incorporated as part of the community theme. Landscape setbacks from streets and thematic fencing encourage the rural flavor of the community



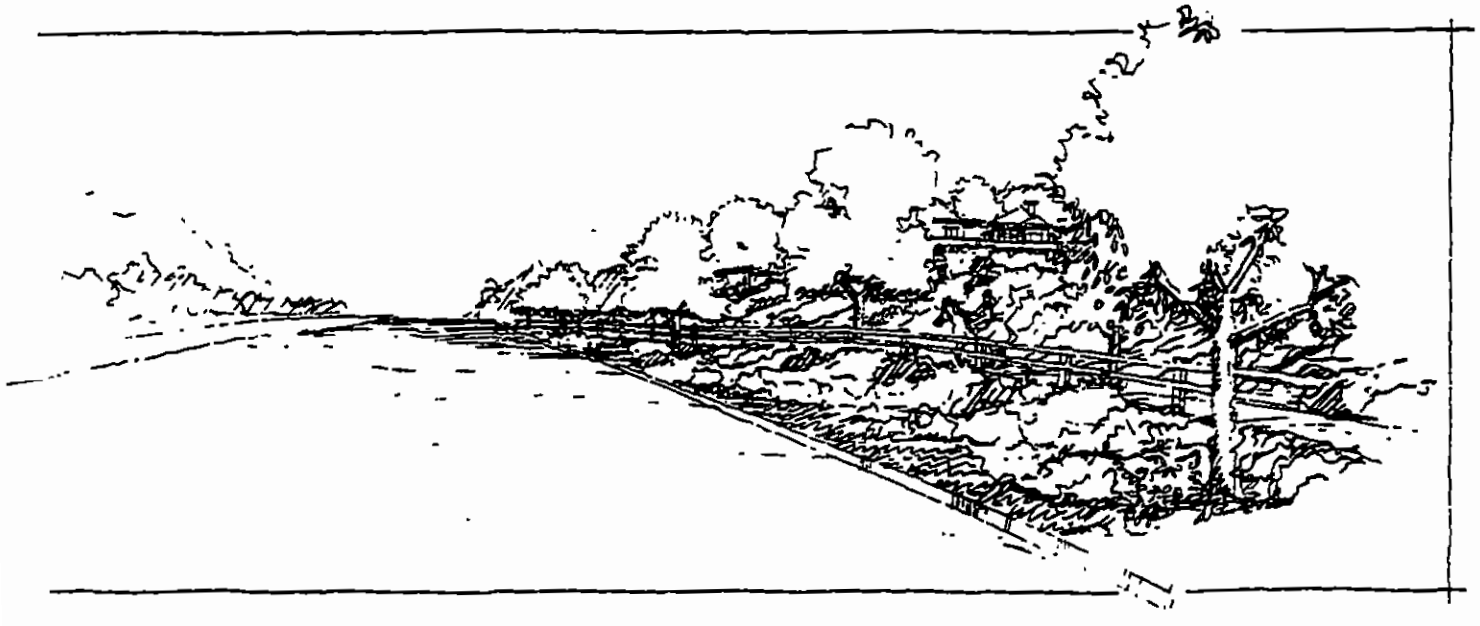
Meandering sidewalks along the community's spine road, enveloped by trees and landscape plantings, provide for an enjoyable walking experience through the community.



Visual accents of seasonal color in the landscape and natural appearing materials in fences and streetscape elements encourages the rural character within the community.

Simple wood-like sign posts provide information and direction while reflecting the desired character of the community.

Visual detail along public edges (El Toro Road) emphasizes the rural nature of Saddleback Meadows. Wood-like fencing, canopy trees and slope planting reflect the community theme and allow for filtered views into the hills beyond.



APPENDIX B

Alternative 4 – 299 Lots

SADDLEBACK MEADOWS

AREA PLAN 95-7
ALTERNATIVE 4 - 299 LOTS

Prepared for:

PLANNING AND DEVELOPMENT SERVICES OF ORANGE COUNTY

Prepared By:

TPG Management, Inc.
On behalf of
California Quartet, Ltd

February 11, 1998

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Area Plan 95-7 Description	1
Open Space/Trail Concept Description	3
Contour Grading Concept Description	4
Landscape/Revegetation Concept Description	5

EXHIBITS

Development Plan Concept

Open Space/Trail Concept

Contour Grading Concept

Landscape/Revegetation Concept

ATTACHMENTS

Attachment A: Conditions of Approval

AREA PLAN 95-7
Alternative 4 - 299 Lots
SADDLEBACK MEADOWS

DESCRIPTION

This alternative has 299 single-family detached dwelling units. It is based upon a modified version of Alternative No. 4 contained in Subsequent Environmental Impact Report No. 566. This alternative originated as staff Alternative No. 8 in EIR No. 561 The intent of this alternative Area Plan design is to respond to the design considerations expressed by St. Michael's Abbey, the Ramakrishna Monastery, and Hidden Ridge Community. This Area Plan also begins to incorporate community-wide design elements and features reflective of a rural-like character within the context and constraints of the site and the developer's objectives. These design elements and features were first presented at the July 30, 1996 Planning Commission Hearing, in a document entitled "Saddleback Meadows Rural Character Statement"

The average lot size for this project is approximately 6,541 s.f., with a minimum lot size of 5,000 s.f.. Access to the project would be provided via a gate guarded private street off El Toro Road immediately south of the existing Aliso Creek/Trail undercrossing structure. An emergency only access connects with Valley Vista Way. The project site is approximately 222.2 acres in size Total open space is approximately 72% (utilizing PDSD's criteria for calculating open space).

The project acreage (222.2 acres) does not include the adjacent off-site water tank site. A water tank with a maximum capacity of 1.4 million gallons, and associated access road, are proposed off-site adjacent to the northeast corner of the project site to provide water service to the proposed project The proposed water tank site was previously dedicated to the Trabuco Canyon Water District when the existing Final Tract Map was recorded (Tract No. 10692). The water tank will be approximately 30-feet tall, 100 to 110-feet in diameter, and will be bermed, landscaped, and painted a complimentary color to the surrounding setting. A total of approximately 8 acres of off-site area would be affected as a result of project implementation to accommodate slope area, access roads, related remedial grading, the water tank, and County of Orange fuel modification requirements.

Onsite circulation is proposed with a system of private streets consisting of a primary spine street (56-foot r.o.w.) and a series of cul-de-sacs (41-,45-, and 52-foot r o.w.). An encroachment easement is required from the County of Orange to accommodate the project access road where it traverses County owned property along the western most boundary of the site

The project has been designed to minimize impact on the existing land form. The homes have been located on the relatively level areas in a broad crescent shape flowing along the southern and eastern sides of the site, while the steep terrain of the central canyon area has been left as open space. Development is kept off the eastern and northern major ridgelines bordering the property. A primary design consideration in establishing the rural-like character of Saddleback Meadows is presenting a landscape enveloped community when viewed from the surrounding areas and from within the development In response to this design intent and the interests of St. Michael's

Abbey, the Ramakrishna Monastery and Hidden Ridge, specific grading techniques, site planning, and landscape elements will be incorporated within the plan. The intent of these features will be to enhance the views of Saddleback Meadows from the surrounding areas. This will be accomplished through.

1. Creative contour grading that emphasizes and expands upon landforms;
2. Berming at select and appropriate locations to blend with natural terrain features while providing screening and buffering views into the project site from St Michael's Abbey, the Ramakrishna Monastery and Hidden Ridge;
3. Creative site planning techniques that minimize rows of backyards along highly visible edges, incorporates slopes, landscape zones and landforms between homes and the surrounding neighbors, and neighborhood streets that climb with the terrain rather than flat roads common to non-terrain sites; and
4. An aesthetic community-wide landscape that provides visual enhancement through significant perimeter and interior plantings, responds to seasonal changes, and provides filtered views of the community from the surrounding areas

A wildlife movement corridor has been incorporated into the project design to address the importance of regional wildlife movement linkages between regionally important open space areas such as O'Neill Regional Park, Whiting Ranch Wilderness Park and the Cleveland National Forest. Unlike the proposed project which does not incorporate any type of wildlife corridor, this alternative utilizes an east/west corridor alignment similar to that shown in the Foothill/Trabuco Specific Plan. This wildlife corridor, which bisects the project (called the central corridor), is a component of a three corridor concept which together is designed primarily to accommodate small and medium size mammals and birds, but would not preclude the occasional potential movement of large mammals as well. This corridor is comprised of a minimum 400' wide wildlife corridor with 50' setbacks located on either side. The onsite wildlife corridor is proposed to utilize an at-grade crossing (400') where the wildlife corridor traverses the development's main spine road. Due to the low level of traffic on this end of the project, the at-grade crossing is not anticipated to inhibit wildlife movement Loffel walls are used in select locations to minimize the extent of manufactured slopes. Loffel walls allow for the growth of plant materials on and around the wall, eventually screening the wall behind a blanket of vegetation

Statistical Summary*

ONSITE	ACREAGE	% OF SITE
Residential Lots	44.9	20%
Streets (private)	17.5	8%
Other Dedicated Natural Open Spaces	93.1	42%
Trail Staging Area/Pocket Park	.6	0%
Open Space (dedicated to H O.A.)	66.1	30%
Subtotal	222.2	100%

* Acreages and percentages are approximations subject to refinement at the Tentative Map/Final Map stages

OPEN SPACE/ TRAIL CONCEPT

The proposed Open Space/Trail Concept for Saddleback Meadows incorporates a variety of refinements which result in minimizing environmental impacts. In response to the Natural Communities Conservation Program (NCCP) goals and objectives, the project provides for a viable Wildlife Movement Corridor incorporated into the design of the project providing access from the Aliso Creek Corridor to O'Neill Regional Park. The design proposes the primarily undisturbed open space areas, along with revegetated slope areas of the project, for fee dedication as a potential extension of O'Neill Regional Park. Trail connections are provided, linking the project to existing regional riding/hiking trails and bikeways. The project proposes a Trail Staging Area/Pocket Park, Ridgetop Park and significant dedicated natural open space. The proposed Trail Staging Area/Pocket Park provides a direct link to the regional trail located on El Toro Road and the other proposed recreation features (Ridgetop Park and the Old Ranch House Site).

1. Trails

a. Regional Riding and Hiking Trail
   - Dedication of 16' wide Recreation Easement along El Toro Road frontage (approx. 1350 l.f.)
   - County Maintenance Responsibility

b. Local Riding and Hiking Trail
   - Dedication of 16' wide Recreation Easement (approx 4800 l f., of which approximately 1550 l.f. traverses Restricted Scenic Preservation Easement, and approximately 3250 l.f. traverses Other Dedicated Natural Open Space)
   - Linkage from proposed Trail Staging Area/Pocket Park to the regional trail on El Toro Road and another trail linking the regional trail to the proposed Ridgetop Park (a.k.a. Bridlewood look-out park) and the Old Ranch House Site.
   - County Maintenance Responsibility

2. Other Dedicated Natural Open Space

As designated on the Open Space/Trail Concept Map
- Potential extension of O'Neill Regional Park
- Approximately 93.1 acres (42% of project site)
- Fee Ownership Dedication
- Includes undisturbed open space, some Native Enhancement Transition Areas and some revegetated manufactured slope areas
- Includes Coastal Sage Scrub Restoration/Enhancement Areas
- Includes preserved significant Oak Woodlands and Oak Restoration Areas outside of fuel modification zones
- Includes portion of existing Olive Grove area undisturbed by grading/fuel modification
- Includes preserved existing and re-created Ephemeral Ponds
- Includes Ridge Top Park (Bridlewood look-out park)

- County Maintenance Responsibility

3. Restricted Scenic Preservation Easements

Areas designated as the following on the Open Space/Trail Concept Plan Map:
- El Toro Road Community Edge Area
- Fuel Modification Zones (Wet Zone and Non-Irrigated Zones only)
- HOA/Community Maintenance District Responsibility

4. Community Slope Area

- As designated on the Open Space/Trail Concept Plan Map
- HOA Owned
- HOA/Community Maintenance District Responsibility

CONTOUR GRADING CONCEPT

The grading concept for this alternative reflects a contour grading approach which utilizes techniques emphasizing variations and takes advantage of the curvilinear street and lotting design, rather than repetitive uniformity. Contour grading and the creative use of berms and landforms along the community's spine road provide for screening and buffering of views into the project site from various offsite locations. Numerous design features work together to establish the rural-like character. Contour grading with landform enhancement provides for edge treatments responsive to the natural terrain. The community's spine road alignment responds to the terrain and allows for landscape plantings on both sides to create the rural-like experience while driving through the community. Creative site planning responds to the intended rural character with setbacks from the spine road. This allows the project a more natural and organic ambiance in keeping with the rolling hillside setting. These contour grading techniques consist of the following:

1 Integrate grading into the context of existing topography using horizontal rounding of contours;
2. Blending of manufactured contours with natural existing contours;
3. Rounding at the top and toe of slopes to avoid harsh transitions; and
4 Design of development enclaves of varying size and irregular spacing to avoid a uniformly "terraced" appearance.

Earthwork Volumes:

Conventional Grading

- Balanced Cut/Fill (approximate)
  Cut Quantity. 2,100,000 c.y
  Fill Quantity· 2,100,000 c.y.

- Total Import Quantity: 0
  Total Export Quantity: 0

Remedial Grading

- Total Remedial Grading (Remove & Replace) approximately 6,800,000 c.y.

MAXIMUM GRADING STATISTICS

Manufactured Slopes	10-20 ft.	Over 20 ft.	Highest
Building Lots (with Type C slopes)*	N/A	N/A	N/A
Type B Slopes** (between building lots)	0 L.F.	5,700 L.F	50 ft.
Roads	2,500 L.F	3,100 L.F	120 ft.

Contour Elevation Changes	10-20 ft.	Over 20 ft.	Highest
Building Sites	92 places	134 places	80 ft.
Roads	4,250 L.F	7,300 L.F.	91 ft.

Retaining Walls	0 - 6 ft.	Over 6 ft.	Highest
	3,500 L.F.	N/A	6 ft

Loffel Walls	0 - 6 ft.	Over 6 ft.	Highest
	0 L.F.	1,640 L.F	40 ft.

* Type "C" slopes are owned and maintained by private owners
** Type "B" slopes are owned and maintained by the H.O A./Community Maintenance District

LANDSCAPE / REVEGETATION CONCEPT

The Landscape / Revegetation Concept for Saddleback Meadows seeks to integrate the landscape of the proposed project with the site's existing setting and that of the surrounding foothill region The use of landscape materials (both native and introduced) and the manner in which the landscape design concept is integrated into the project will reinforce the ability of Saddleback Meadows to respond to the following:

1. Views into the community from surrounding properties;
2. Views from within the Saddleback community,
3. The desire to create a community character which reflects the transitional nature of the property from a suburban to semi-rural setting

Interspersing primarily sycamore tree groupings at strategic locations throughout the project will blend the different landscape zones and integrate this community into the surrounding preserved

natural open space areas. A predominant image of nature, open space and natural vegetation will be accomplished via:

1. Tall trees and shrub massings planted on slopes between the residential neighborhoods and within natural open spaces, on slopes between homes, and along community streets;
2. A priority given to landscape plantings, i.e. views of the community shall be through the landscape which blankets the architecture of the neighborhoods, thus allowing the landscape (incorporating Sycamores, Oaks, and other appropriate trees) to predominate over the built environment; and
3. Side slope and street tree plantings in the neighborhoods to provide for visible tree canopies above the rooflines.
4. An interlace of the natural and introduced landscape as one fabric.

The Landscape Concept consists of five (5) functional yet integrated areas and zones as shown on the Landscape / Revegetation Concept Plan. These areas and zones are as follows:

1) El Toro Road Community Edge Area

The El Toro Road Community Edge area will play a key role in providing a physical and visual buffer for the project from off-site views. Predominantly manufactured slopes are planned along El Toro Road. In addition, a key component of this edge is the preservation of Aliso Creek and it's existing riparian habitat along El Toro Road, just north of the proposed main project entry point. Therefore, this community edge adjacent to the road will be landscaped with introduced and native compatible plants reflecting and continuing the riparian landscape found along the Aliso Creek/El Toro Road Corridor. The California Sycamore, commonly found in riparian areas, will be the major slope tree along the El Toro Road Community Edge.

Further up the manufactured slope, the landscape will transition from riparian plants to ornamental and native compatible plants suitable for erosion control and for buffering and screening. Tree plantings at side-yard property lines of the residential lots located at the top of slopes will reduce the visual impact of dwellings when viewed from off-site. Meanwhile these tree groupings are intended to maintain views for individual lots Additionally, this edge treatment is designed to provide visual screening of the project from vehicles traveling along El Toro Road.

2) Community Slope Area

Manufactured slopes will be landscaped to visually enhance the project, to control erosion, and to provide buffering/screening where appropriate and feasible. Trees will be located at the top of slopes and clustered near side-yard property lines of residential lots as well as on the slope itself. Trees planted on the slope will take into consideration the maximum tree height at maturity relative to its vertical location to the top of slope, so that views from residential lots will not be impaired when slope landscaping reaches full maturity This will blend the manufactured on-site slopes with off-site natural areas, integrating the community landscape into the surrounding

environs. California Sycamore and some Coastal Live Oak trees will be used in strategic locations throughout the community slopes, continuing the community landscape theme

Major oak woodland areas and areas of the olive grove which are not impacted by development and/or remedial grading activities are identified on the Landscape/Revegetation Concept Plan as preserved These areas identify major preserved tree stands and tree groupings only. For identification of individual preserved and impacted oak trees, refer to Sweetwater Environmental Biologists' Oak Tree Inventory, dated December 21, 1995

3) Fire Fuel Modification Zones

The Orange County Fire Authority (OCFA) requires a fuel modification program along all edges of residential development exposed to fire hazard areas. The fuel modification program addresses three zones consisting of a "Setback Zone", "Wet Zone", and a "Non-Irrigated Zone", as shown on the Landscape and Revegetation Concept Plan Map. Maintenance responsibility for the setback zone lies with the private owner. Maintenance responsibility for the other zones will be with the H O.A./ Community Maintenance District.

Saddleback Meadows' residential edges contain both upslope and downslope conditions with a combination of both manufactured and natural undisturbed slopes. The intent of the fuel modification is to utilize these slopes as a transition area between natural open space (fire hazard areas) and the residential edge and to provide an acceptable level of fire safety. The revegetated portion of these slopes will be landscaped using native compatible plant species which will meet the public safety goals of the OCFA, reinforce the naturalized appearance of the manufactured slopes, satisfy the aesthetic requirements of the project. Fire Fuel Modification Zones are designed to reflect the native enhancement transition zone criteria for plant material selection. The plant palettes for both of the Fire Fuel Modification Zones and the Native Enhancement Transition Zone overlap and contain many of the same species and varieties of plants.

Setback Zone - Is a twenty-foot (20') wide area within the rear yard setback of all residential lots abutting the fuel modification zone. No combustible construction or materials will be allowed in this zone. This zone will be maintained by the individual homeowner (Not shown on the Landscape / Revegetation Concept Plan, see Preliminary Fuel Modification Plan)

Wet Zone - is a fifty-foot (50') wide landscape area, beginning at the residential rear yard property line. This zone includes an automatic irrigation system and low fuel fire resistive, native compatible plants

Non-Irrigated Zone - Fire fuel modification zones are 100' wide. However, several upslope areas with 50' widths will be permitted with O.C.F.A. approval. In natural undisturbed slopes, existing native planting will be non-irrigated, pruned and thinned. Manufactured slopes will be **temporarily** irrigated and landscaped with native and native-compatible plant materials Landscaping is intended to naturalize over time with irrigation to be abandoned upon establishment and naturalization.

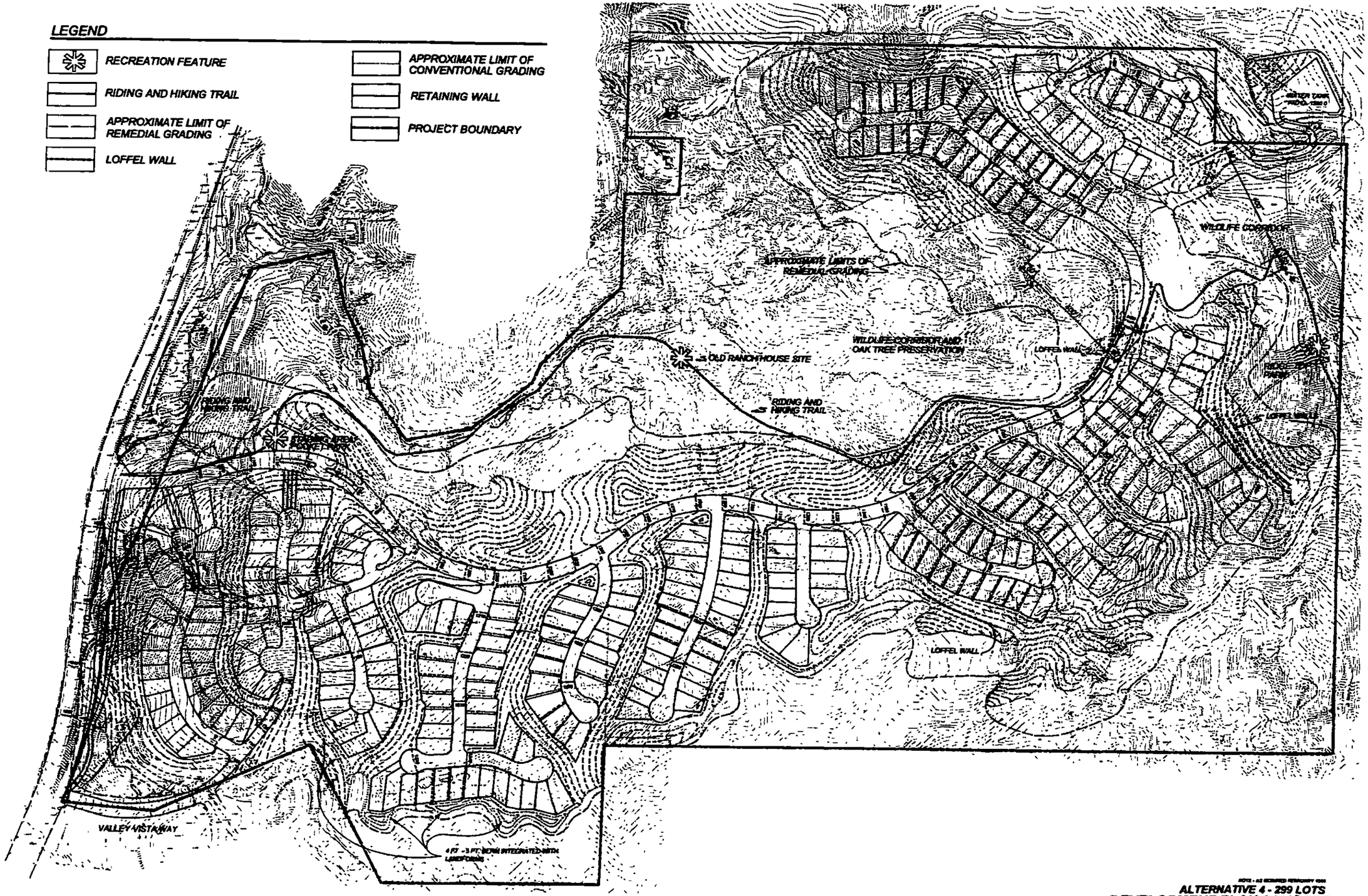
Application of the Orange County Fire Authority's (OCFA) fuel modification criteria to the area located along the upper north-easterly project boundary, dictates that the fuel modification zone traverse off-site onto private property. This will require that an easement be obtained from the adjacent property owner, for the purposes of fuel modification, prior to the issuance of a grading permit. Maintenance responsibility for any off-site fuel modification zones will be the same as for on-site fuel modification zones (i.e. H.O A. / Community Maintenance District).

4) Native Enhancement Transition Area

Natural areas disturbed by remedial grading and located within designated open space areas will require revegetation with native or naturalized plant material to re-establish the previous coastal sage scrub (CSS). A high priority will be placed upon selecting plant material which is indigenous to the undisturbed natural areas and surrounding areas and which will provide a landscape with as much habitat value as is practical.

5) Existing Undisturbed Vegetation Area.

Open space areas undisturbed by remedial grading activities will be preserved and incorporated into the overall landscape concept Only minimal clean-up of abandoned agricultural uses , if necessary is planned. The elimination of livestock grazing on the property will allow the natural transition and succession of grasses to CSS and Chaparral plant communities over time. The majority of Oak Woodland mitigation will occur in this area within stands of existing non-native vegetation.

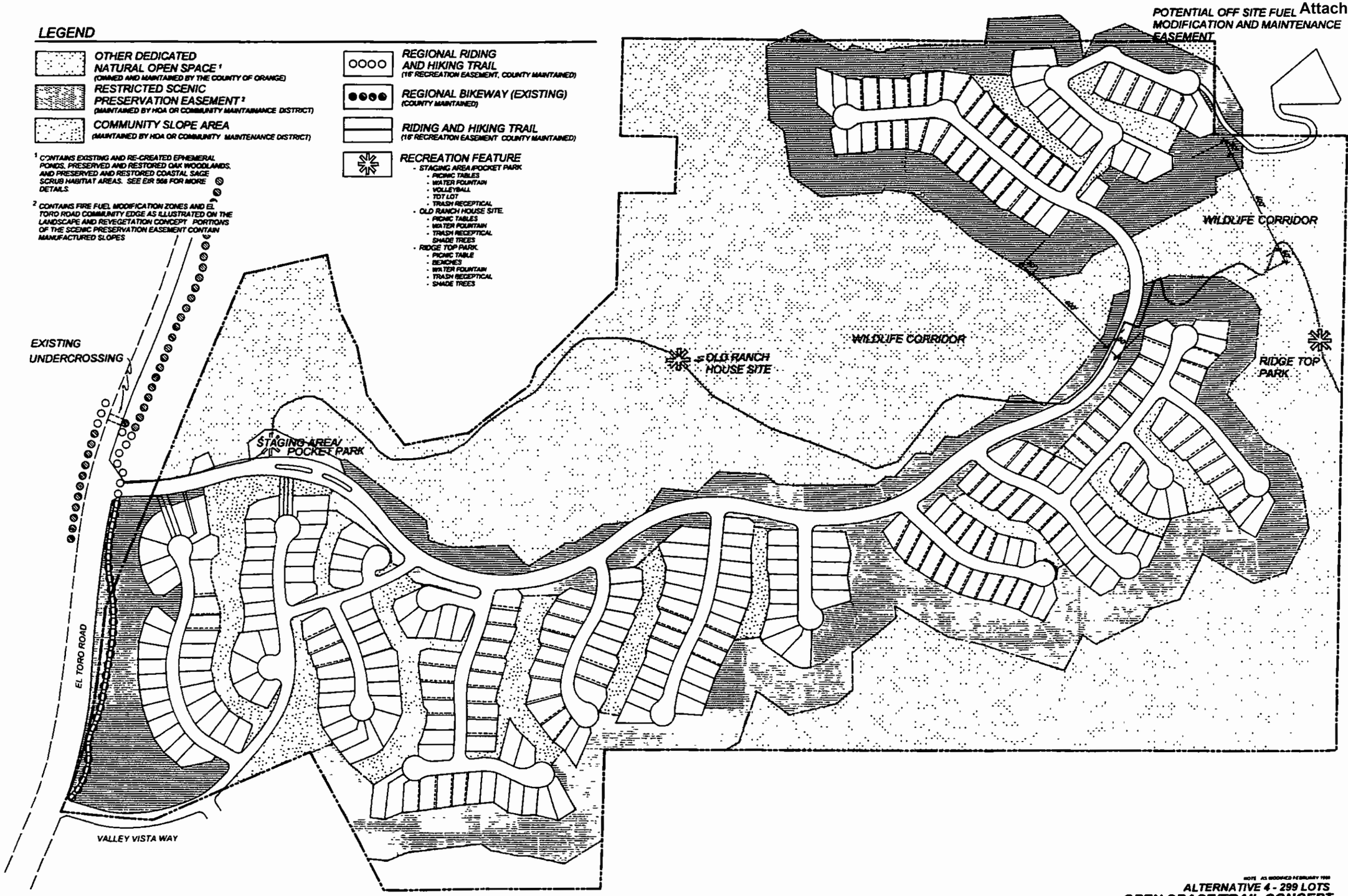


SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

ALTERNATIVE 4 - 299 LOTS
DEVELOPMENT PLAN CONCEPT
AREA PLAN 95-7

MICHAEL MADDEN ASSOCIATES FEBRUARY 10, 1998 0 50 100 400



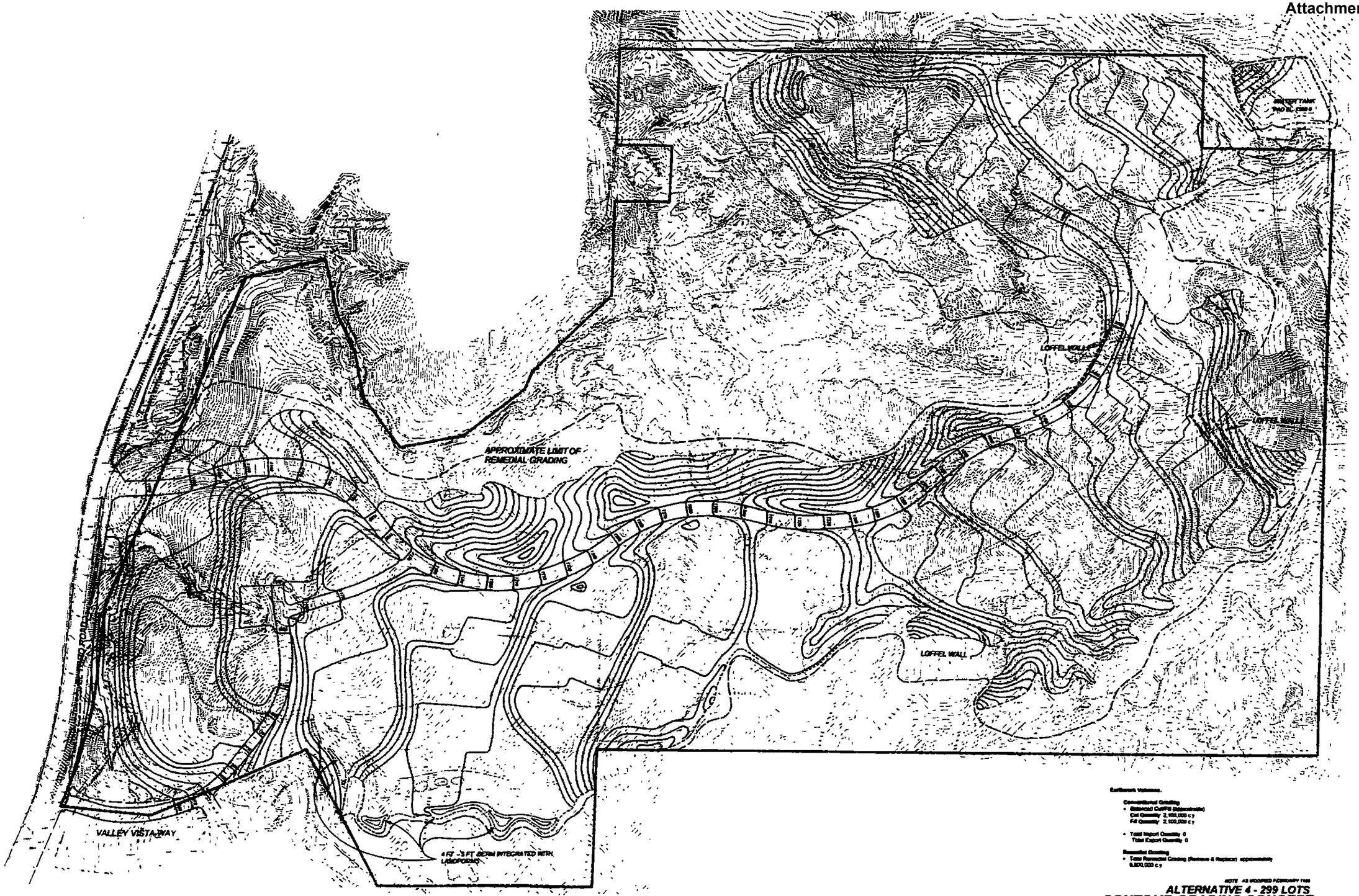
NOTE AS MODIFIED FEBRUARY 1996

ALTERNATIVE 4 - 299 LOTS
OPEN SPACE/TRAIL CONCEPT
AREA PLAN 95-7

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

MICHAEL MADDEN ASSOCIATES FEBRUARY 10, 1996 0 50 100 200 400



Earthwork Volumes:

Conventional Grading
- Balanced Cut/Fill (Approximate)
  Cut Quantity: 2,100,000 c.y.
  Fill Quantity: 2,100,000 c.y.
- Total Import Quantity: 0
  Total Export Quantity: 0

Remedial Grading
- Total Remedial Grading (Remove & Replace): approximately 6,800,000 c.y.

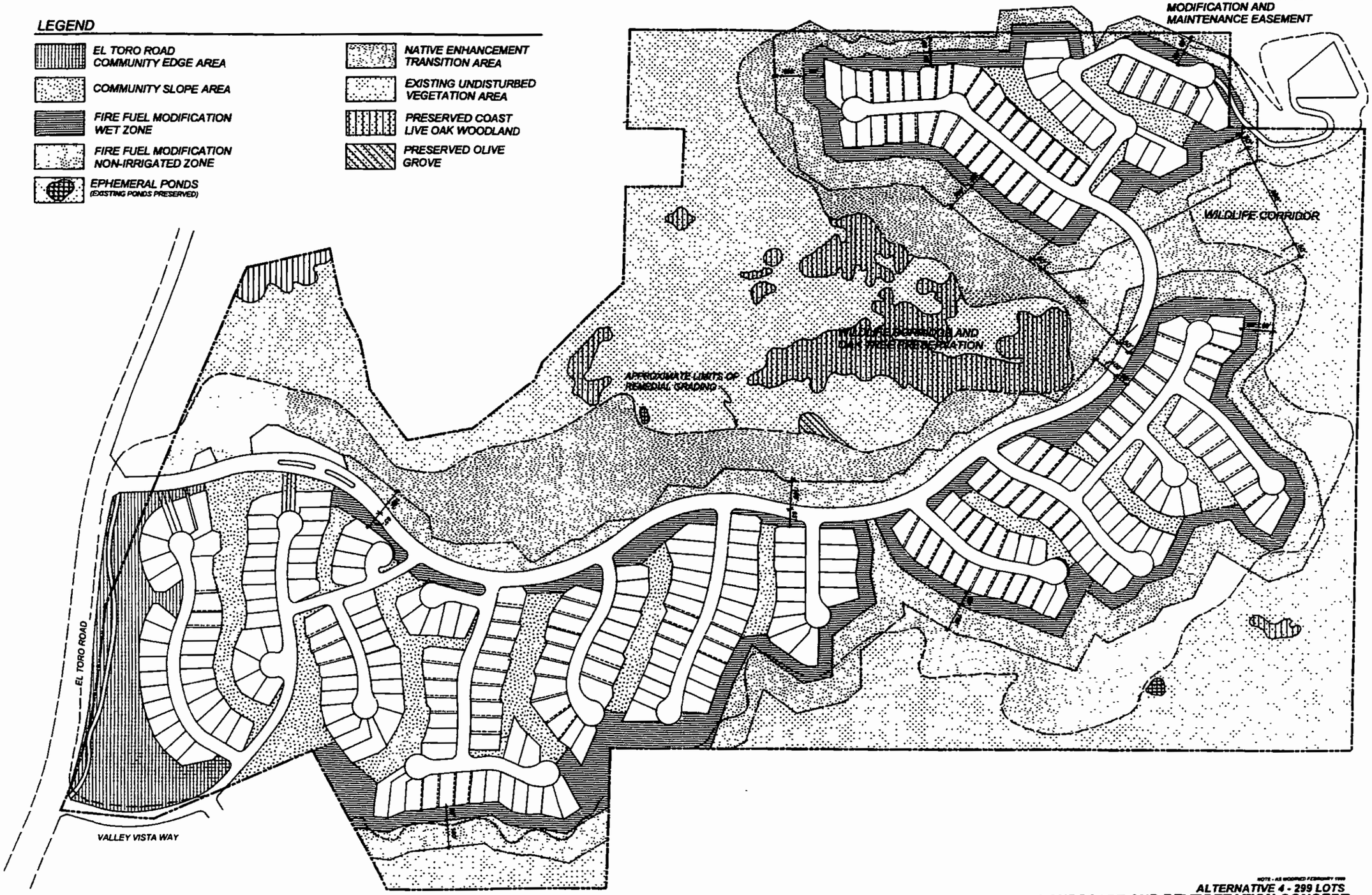
NOTE: AS MODIFIED FEBRUARY 1998

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

ALTERNATIVE 4 - 299 LOTS
CONTOUR GRADING CONCEPT
AREA PLAN 95-7

MICHAEL MADDEN ASSOCIATES — FEBRUARY 10, 1998 — 0 50 100 200 400



NOTE - AS MODIFIED FEBRUARY 1998

ALTERNATIVE 4 - 299 LOTS
LANDSCAPE AND REVEGETATION CONCEPT
AREA PLAN 95-7

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

MICHAEL BADDEN ASSOCIATES FEBRUARY 10, 1998 0 SI 200 400

APPENDIX C

Alternative 8 – 299 Lots

SADDLEBACK MEADOWS

AREA PLAN 95-7
ALTERNATIVE 8 - 299 LOTS

PREPARED FOR:

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

PREPARED BY:

TPG Management, Inc.
On behalf of
California Quartet, Ltd.

July 23, 1996

TABLE OF CONTENTS

SECTION	PAGE
Area Plan 95-7 Description	1
Open Space/Trail Concept Description	2
Contour Grading Concept Description	3
Landscape/Revegetation Concept Description	4

EXHIBITS

Development Plan Concept

Open Space/Trail Concept

Contour Grading Concept

Landscape/Revegetation Concept

ATTACHMENTS

Attachment A: Conditions of Approval

AREA PLAN 95-7
Alternative 8 - 299 Lots
SADDLEBACK MEADOWS

DESCRIPTION

This alternative has 299 single-family detached dwelling units. It is based upon EMA staff's version of Alternative No. 8. The average lot size for this project is approximately 6,400 s.f., with a minimum lot size of 5,000 s.f. Access to the project would be provided via a gate guarded private street off El Toro Road immediately south of the existing Aliso Creek/Trail undercrossing. An emergency only access connects with Valley Vista Way. The project site is 222.2 acres in size. Total open space is approximately 72% (utilizing EMA's criteria for calculating open space).

The project acreage (222.2 acres) does not include the adjacent off-site water tank site. A 1.4 million gallon water tank and associated access road is proposed off-site adjacent to the northeast corner of the project site to provide water service to the proposed project. The proposed water tank site was dedicated to the Trabuco Canyon Water District when the existing Final Tract Map was recorded (Tract No. 10692). The water tank will be approximately 30-feet tall, 100 to 110-feet in diameter, bermed, landscape, and painted a complimentary color to the surrounding setting. A total of approximately 8 acres of off-site area would be affected as a result of project implementation to accommodate slope area, access roads, related remedial grading, the water tank, and County of Orange fuel modification requirements.

Onsite circulation is proposed with a system of private streets consisting of a primary spine street (56-foot r.o.w.) and a series of cul-de-sacs (41-,45-, and 52-foot r.o.w.) An encroachment easement is required from the County of Orange to accommodate the project access road where it traverses County owned property along the western most boundary of the site.

The project has been designed to minimize impact on the existing land form. The homes have been located on the relatively level areas in a broad crescent shape flowing along the southern and eastern sides of the site, while the steep terrain of the central canyon area has been left as open space. Development is kept off the eastern and northern major ridgelines bordering the property.

A wildlife movement corridor has been incorporated into the project design to address the importance of regional wildlife movement linkages between regionally important open space areas such as O'Neill Regional Park, Whiting Ranch Wilderness Park and the Cleveland National Forest. Unlike the proposed project, this alternative utilizes an east/west corridor alignment similar to that shown in the Foothill/Trabuco Specific Plan. The wildlife corridor which bisects the project (called the central corridor) is a component of a three corridor concept which together is designed primarily to accommodate small and medium size mammals and birds, but would not

preclude the occasional potential movement of large mammals as well. This corridor is comprised of a minimum 400' wide wildlife corridor with 50' setbacks located on either side. The onsite wildlife corridor is proposed to utilize an at-grade crossing (400') where the wildlife corridor traverses the main spine road. Due to the low level of traffic on this end of the project, the at-grade crossing is not anticipated to inhibit wildlife movement. Loffel walls with a maximum height of 12' are used in strategic locations to minimize the extent of slopes and to save one of the existing stock ponds, located near the southeast corner of the site. Loffel walls allow for the integration of plant materials onto the wall, eventually screening the wall behind a blanket of vegetation.

Statistical Summary*

ONSITE	ACREAGE	% OF SITE
Residential Lots	44.7	20%
Streets (private)	18.0	8%
Other Dedicated Natural Open Spaces	91.9	41%
Trail Staging Area	.6	0%
Open Space (dedicated to H.O.A.)	67.0	31%
Subtotal	222.2	100%

* Acreages and percentages are approximations subject to refinement at the Tentative Map stage.

OPEN SPACE/ TRAIL CONCEPT

The proposed Open Space/Trail Concept for Saddleback Meadows incorporates a variety of refinements which result in minimizing environmental impacts. In response to Natural Communities Conservation Program (NCCP) goals and objectives, the project provides for a viable Wildlife Movement Corridor incorporated into the design of the project providing access from the Aliso Creek Corridor to O'Neill Regional Park. The design proposes the primarily undisturbed open space areas along with some revegetated disturbed slope areas of the project for fee dedication as a potential extension of O'Neill Regional Park. Trail connections are provided, linking the project to existing regional riding/hiking trails and bikeways. The project proposes a trail staging area, ridgetop park and significant dedicated natural open space. The proposed Trail Staging Area provides a direct link to the regional trail located on El Toro Road and the other proposed recreation features (ridgetop park and old ranch house site)

1. Trails

a. Regional Riding and Hiking Trail
- -Dedication of 16' wide Recreation Easement along El Toro Road frontage (approx. 1350 l.f)
- -County Maintenance Responsibility

b. Local Riding and Hiking Trail

-Dedication of 16' wide Recreation Easement (approx. 4800 l.f., of which approximately 1550 l.f. traverses Restricted Scenic Preservation Easement, and approximately 3250 l.f. traverses Other Dedicated Natural Open Space)
-Linkage from proposed Trail Staging Area to the regional trail on El Toro Road and another trail linking the regional trail to the proposed ridgetop park (a.k.a Bridlewood look-out park) and old ranch house site.
-County Maintenance Responsibility

2. Other Dedicated Natural Open Space

As designated on the Open Space/Trail Concept Map:
- Potential extension of O'Neill Regional Park
- Approximately 91.9 acres (41% of project site)
- Fee Ownership Dedication
- Includes undisturbed open space, Native Enhancement Transition Areas, and some revegetated manufactured slope areas
- Includes Coastal Sage Scrub Restoration/Enhancement Areas
- Includes preserved significant Oak Woodlands and Oak Restoration Areas outside of fuel modification zones
- Includes portion of existing Olive Grove area undisturbed by grading/fuel modification
- Includes preserved existing and re-created Ephemeral Ponds
- Includes Ridge Top Park (Bridlewood Lookout Park)
- County Maintenance Responsibility

3. Restricted Scenic Preservation Easements

Areas designated as the following on the Open Space/Trail Concept Plan Map:
- El Toro Road Community Edge Area
- Fuel Modification Zones (Wet Zone and Non-Irrigated Zones only)
- HOA/Community Maintenance District Responsibility

4. Community Slope Area
- As designated on the Open Space/Trail Concept Plan Map
- HOA Owned
- HOA/Community Maintenance District Responsibility

CONTOUR GRADING CONCEPT

The grading concept for this alternative reflects a contour grading approach which utilizes techniques emphasizing variations and takes advantage of the curvilinear street and lotting design, rather than repetitive uniformity. This allows the project a more natural and organic ambiance in keeping with the rolling hillside setting. These contour grading techniques consist of the following:

- Integrate grading into the context of existing topography using horizontal rounding of contours;

- Blending of manufactured contours with natural existing contours;
- Rounding at the top and toe of slopes to avoid harsh transitions; and
- Design of development enclaves of varying size and irregular spacing to avoid a uniformly "terraced" appearance.

Earthwork Volumes:

Conventional Grading

- Balanced Cut/Fill (approximate)
  Cut Quantity: 2,100,000 **c.y.**
  Fill Quantity. 2,100,000 **c.y.**

- Total Import Quantity: **0**
  Total Export Quantity: **0**

Remedial Grading

- Total Remedial Grading (Remove & Replace): approximately **6,300,000 c.y.**

MAXIMUM GRADING STATISTICS

Manufactured Slopes	10-20 ft.	Over 20 ft.	Highest
Building Lots (with Type C slopes)*	N/A	N/A	N/A
Type B Slopes** (between building lots)	1,700 L.F.	3,850 L.F	85 ft.
Roads	1,425 L.F.	2,860 L.F.	120 ft.

Contour Elevation Changes	10-20 ft.	Over 20 ft.	Highest
Building Sites	85 places	182 places	78 ft.
Roads	4,950 L.F.	7,250 L.F	92 ft.

Retaining Walls	0 - 6 ft.	Over 6 ft.	Highest
	860 L.F.	N/A	6 ft.

Loffel Walls	0 - 6 ft.	Over 6 ft.	Highest
	2,050 L.F.	550 L.F.	12 ft.

* Type "C" slopes are owned and maintained by private owners
** Type "B" slopes are owned and maintained by the H.O.A./Community Maintenance District

LANDSCAPE / REVEGETATION CONCEPT

The Landscape / Revegetation Concept for Saddleback Meadows seeks to integrate the landscape of the proposed project with the site's existing setting and that of the surrounding foothill region.

Interspersing sycamore and oak tree groupings at strategic locations throughout the project will blend the different landscape zones and integrate this community into the surrounding preserved natural open space areas. The Landscape Concept consists of five (5) functional yet integrated areas and zones as shown on the Landscape / Revegetation Concept Plan. These areas and zones are as follows:

1) El Toro Road Community Edge Area

The El Toro Road Community Edge area will play a key role in providing a physical and visual buffer for the project from off-site views. Predominantly manufactured slopes are planned along El Toro Road. In addition, a key component of this edge is the preservation of Aliso Creek and it's existing riparian habitat along El Toro Road, just north of the proposed main project entry point. Therefore, this community edge adjacent to the road will be landscaped with introduced and native compatible plants reflecting and continuing the riparian landscape found along the Aliso Creek/El Toro Road Corridor. The California Sycamore, commonly found in riparian areas, will be the major slope tree along the El Toro Road Community Edge.

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Major oak woodland areas and areas of the olive grove which are not impacted by development and/or remedial grading activities are identified on the Landscape/Revegetation Concept Plan as preserved. These areas identify major preserved tree stands and tree groupings only. For identification of individual preserved and impacted oak trees, refer to Sweetwater Environmental Biologists' Oak Tree Inventory, dated December 21, 1995.

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Saddleback Meadows' residential edges contain both upslope and downslope conditions with a combination of both manufactured and natural undisturbed slopes. The intent of the fuel modification is to utilize these slopes as a transition area between natural open space (fire hazard areas) and the residential edge and to provide an acceptable level of fire safety. The revegetated portion of these slopes will be landscaped using native compatible plant species which will meet the public safety goals of the OCFA, reinforce the naturalized appearance of the manufactured slopes, satisfy the aesthetic requirements of the project. Fire Fuel Modification Zones are designed to reflect the native enhancement transition zone criteria for plant material selection. The plant palettes for both of the Fire Fuel Modification Zones and the Native Enhancement Transition Zone overlap and contain many of the same species and varieties of plants.

Setback Zone - Is a twenty-foot (20') wide area within the rear yard setback of all residential lots abutting the fuel modification zone. No combustible construction or materials will be allowed in this zone. This zone will be maintained by the individual homeowner. (Not shown on the Landscape / Revegetation Concept Plan, see Preliminary Fuel Modification Plan).

Wet Zone - is a fifty-foot (50') wide landscape area, beginning at the residential rear yard property line. This zone includes an automatic irrigation system and low fuel fire resistive, native compatible plants.

Non-Irrigated Zone - Fire fuel modification zones are 100' wide. However, several upslope areas with 50' widths will be permitted with O.C.F.A. approval. In natural undisturbed slopes, existing native planting will be non-irrigated, pruned and thinned. Manufactured slopes will be temporarily irrigated and landscaped with native and native-compatible plant materials. Landscaping is intended to naturalize over time with irrigation to be abandoned upon establishment and naturalization

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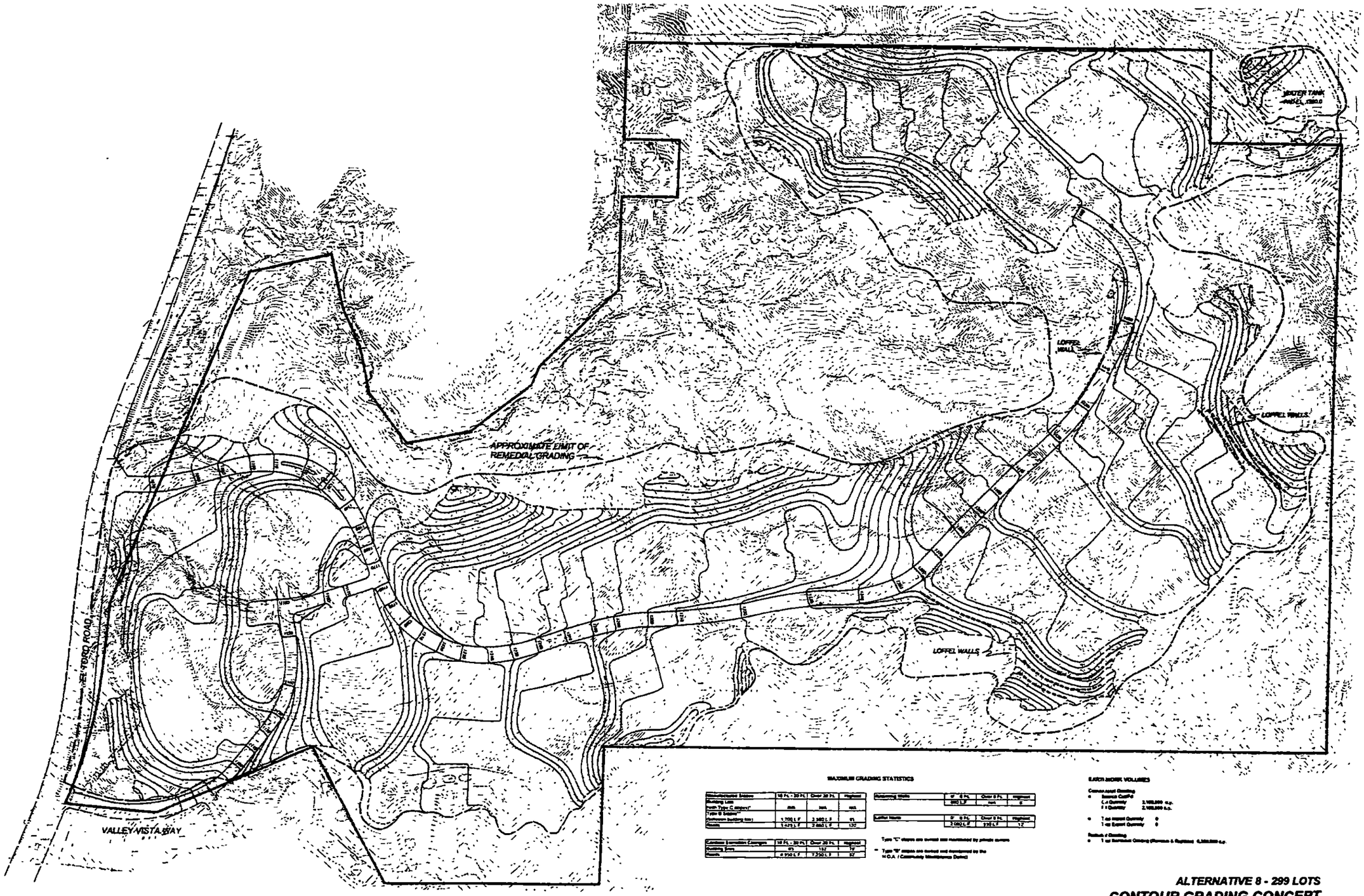
Open space areas undisturbed by remedial grading activities will be preserved and incorporated into the overall landscape concept. Only minimal clean-up of abandoned agricultural uses , if necessary is planned. The elimination of livestock grazing on the property will allow the natural transition and succession of grasses to CSS and Chaparral plant communities over time. The majority of Oak Woodland mitigation will occur in this area within stands of existing non-native vegetation.

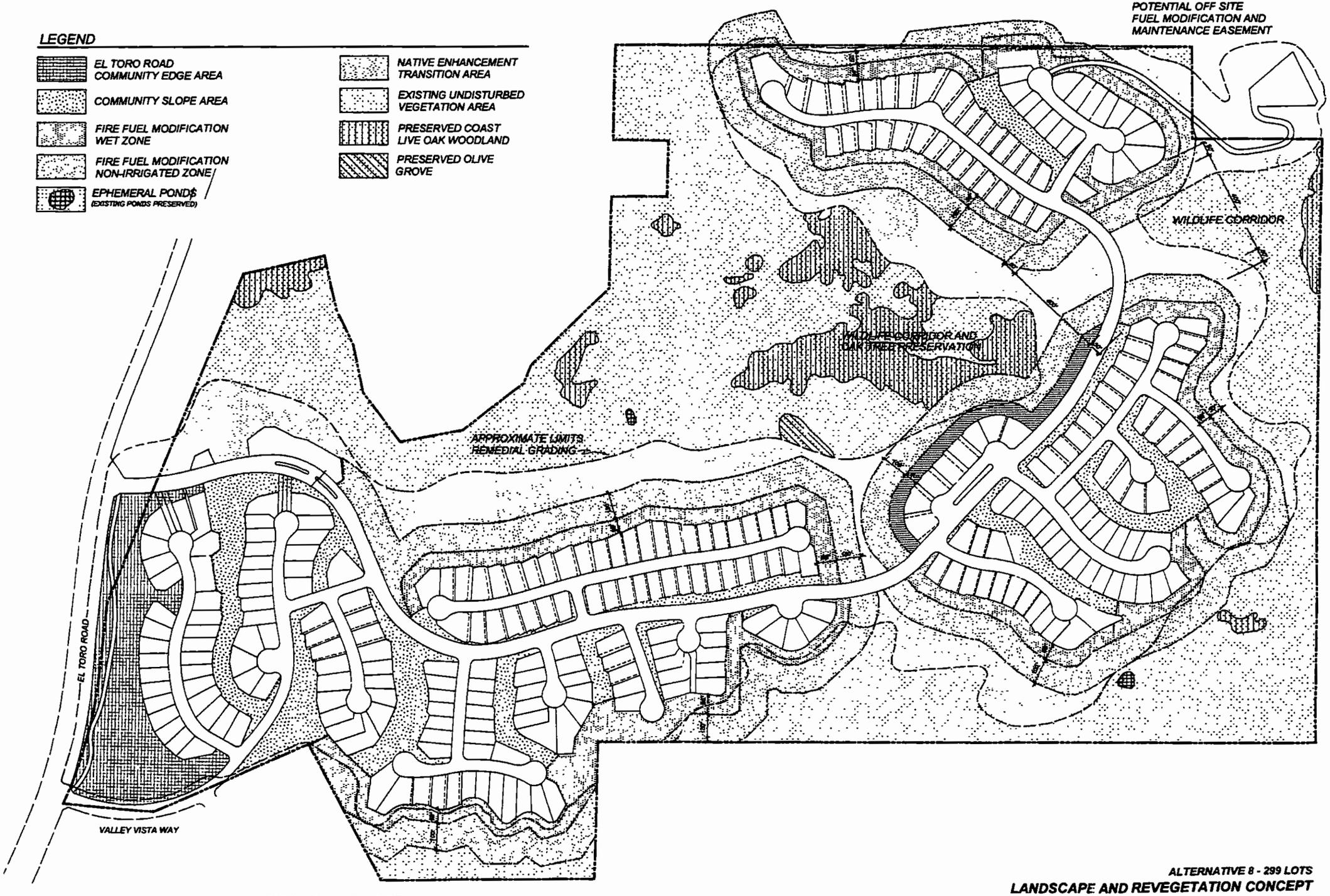


SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

ALTERNATIVE 8 - 299 LOTS
CONTOUR GRADING CONCEPT
AREA PLAN 95-7

JULY 23,1996



SADDLEBACK MEADOWS

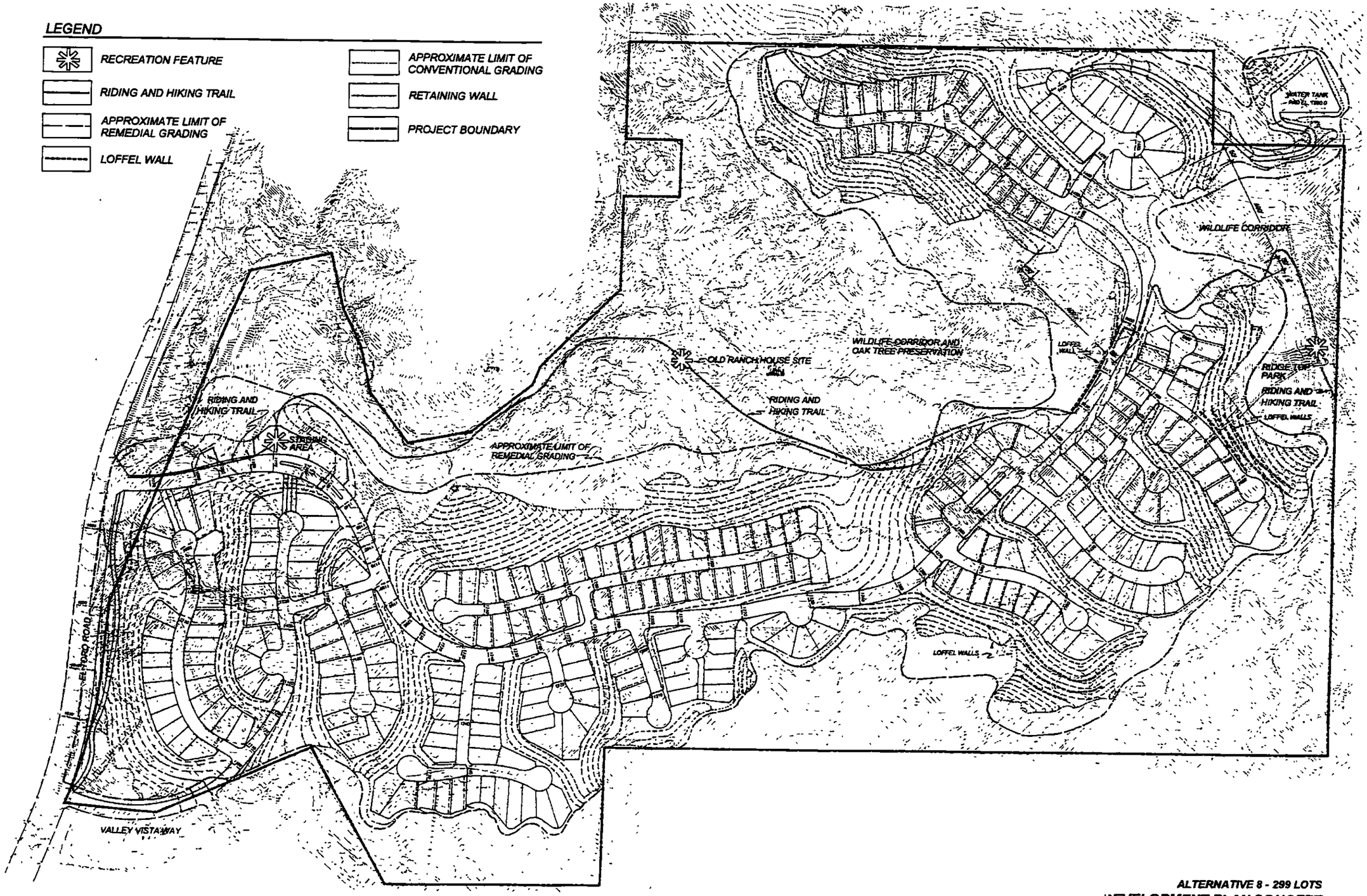
CALIFORNIA QUARTET, LTD.

ALTERNATIVE 8 - 299 LOTS

LANDSCAPE AND REVEGETATION CONCEPT

AREA PLAN 95-7

JULY 22,1996 0 50 100

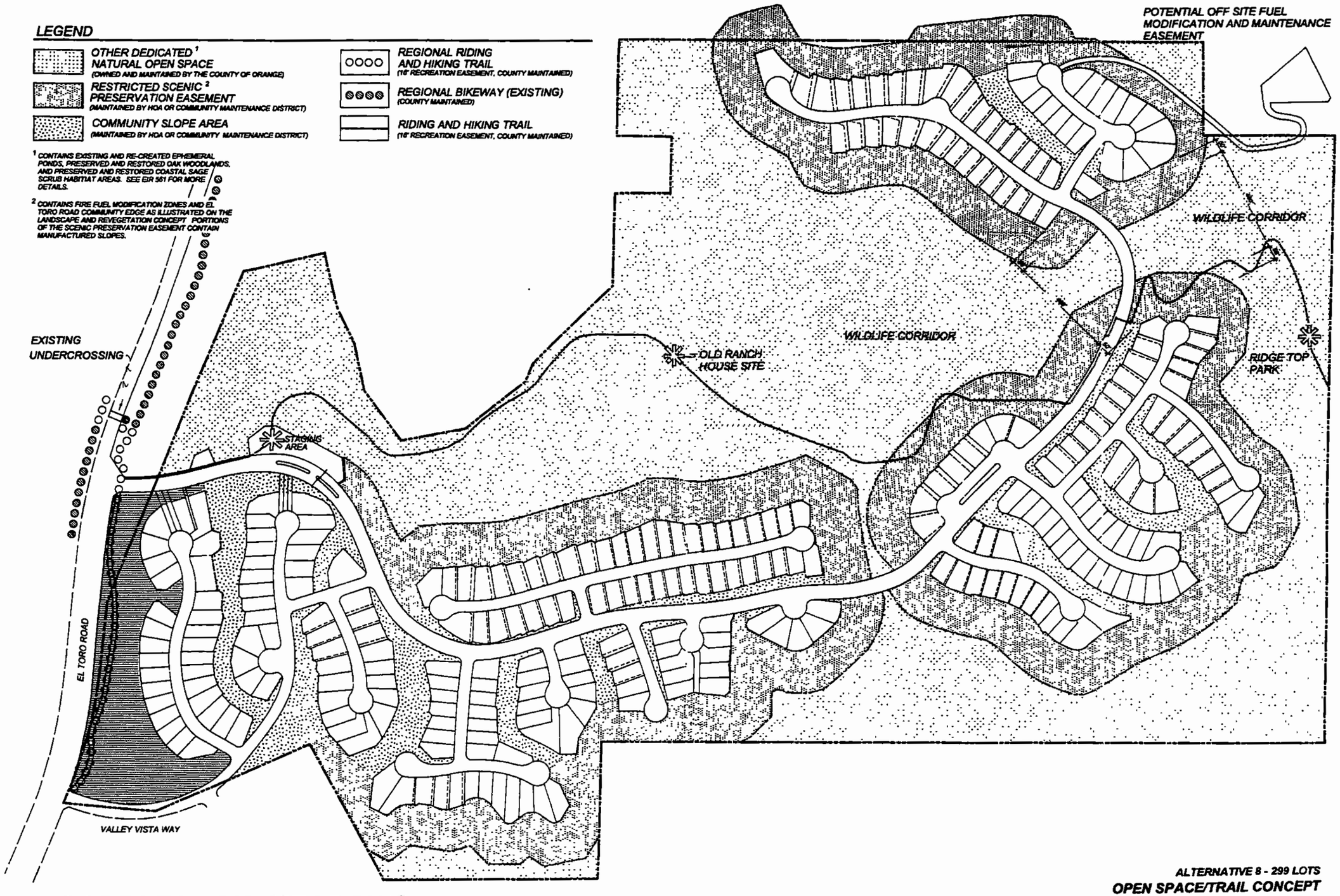


SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

ALTERNATIVE 8 - 299 LOTS
DEVELOPMENT PLAN CONCEPT
AREA PLAN 95-7

JULY 23,1998 0 50 100 200 400



SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

ALTERNATIVE 8 - 299 LOTS
OPEN SPACE/TRAIL CONCEPT
AREA PLAN 95-7

JULY 23,1996 0 50 100 200 400

APPENDIX D

Alternative 9 – 318 Lots

Alternative 9
Environmental Impact Assessment

Saddleback Meadows

Vesting Tentative Tract Map No. 15230
Area Plan 95-7
Zone Change 95-5
PA No. 950151

EIR No. 561
State Clearinghouse No. 95081033

Lead Agency:

COUNTY OF ORANGE
Environmental Management Agency
Environmental & Project Planning Division

300 North Flower Street
P.O. Box 4048
Santa Ana, California, 92702-4048

Prepared By:

URBAN VISION
1601 Dove Street, Suite 250
Newport Beach, California 92660

September 19, 1996

ALTERNATIVE 9
LANDFORM GRADING/VIEWSHED PROTECTION ALTERNATIVE

Overview

In response to actions taken at the July 30, 1996 Orange County Planning Commission Public Hearing and comments received on the Draft EIR during the public review period, an additional alternative (Alternative 9) has been developed by the applicant to incorporate identified comments. Alternative 9 is based on the Staff Alternative 8 design, which was previously evaluated in the Response to Comments document dated July. 1996, with the addition of strategically designed landform grading and landscaping to screen views of the proposed onsite development area from surrounding land uses. In addition, the majority of the development area is now located south of the primary onsite spine road, creating a single loaded street through the majority of the project site.

The following features have been incorporated into Alternative 9:

- Contour grading that emphasizes and expands on existing landforms,
- Berming at selected locations to blend with natural terrain features while providing screening and buffering views into the project site from St. Michael's Abbey and the Hidden Ridge community,
- Site planning techniques that minimize rows of backyards along highly visible edges, incorporates slopes, landscape zones, and landforms between homes and surrounding land uses.
- Community wide landscaping that provides visual enhancement through perimeter and interior plantings, providing filtered views of the proposed development area from the surrounding areas.

Section 15088 of the CEQA Guidelines encourages the development of additional alternatives to the proposed project, as a means of mitigating impacts in response to comments received on the Draft EIR. A revised Area Plan package was submitted to the Orange County Environmental Management Agency on September 10, 1996 to reflect the Alternative 9 land plan features and contains the Area Plan description, Open Space/Trail Concept, Contour Grading Concept and the Landscape/Revegetation Concept. Unless otherwise noted, the impacts assessment contained within this document compares Alternative 9 to the proposed project evaluated in the Draft EIR.

Alternative 9, as with all of the other eight (8) alternatives, has been evaluated in terms of meeting the following development objectives of the proposed project:

- Develop a residential community which preserves onsite sensitive biological , cultural and aesthetic resources and conforms to existing landform conditions in response to County and community concerns
- Minimize visual effects on surrounding properties through the application of sensitive grading design, habitat restoration and landscape screening.
- Remediate and provide geotechnical stabilization for onsite and slide areas affecting the proposed development area.

- Implement the policies contained in the General Plan, Foothill/Trabuco Specific Plan, Aliso Creek Corridor Concept Plan and the Air Quality Management Plan.
- Minimize adverse affects to surrounding properties, O'Neill Regional Park and Aliso Creek through buffer/setback zones, design features and landform grading.
- Implement design guidelines and development standards to ensure compliance with current planning and zoning law requirement through the Area Plan process.
- Develop a resource management plan to enhance onsite biological features including a wildlife movement corridor, sensitive species, pond re-creation, habitat restoration and oak tree preservation, in compliance with Natural Communities Conservation Planning Program goals
- Create a fire safe community through incorporation of an area-wide fuel modification program.
- Provide trail connections to the regional riding and hiking trail system.
- Dedicate right-of-way and site stabilization for the widening and improvement of El Toro Road.

Project Description

Alternative 9 proposes the construction of 318 single family detached dwelling units on minimum 5,000 square foot lots (average 6,452 sq.ft. lots), with a series of landform grading, resource enhancement and recreation components, summarized as follows:

- Landform grading along the northern side of the primary spine road, and selected portions of the southern development edge, designed to screen offsite views of the development area.
- A wildlife corridor system designed to accommodate primary wildlife movement through a 500 foot wide east-west corridor and secondary movement through a 150 foot wide informal north-south corridor, with at-grade crossings.
- Preservation of the southerly ephemeral pond
- 0.4 acre passive park/trail head staging area
- 0.2 acre passive ridge top lookout park
- A 10 foot wide hiking trail connecting the Aliso Creek Riding/Hiking Trail and the Live Oak Hiking Trail to the trail staging area and O'Neill Regional Park.
- Relocation of residential lots adjacent to the wildlife corridor and St. Michael's Abbey.
- Preservation of additional oak woodland associated with the east-west wildlife movement corridor.
- Revegetation of the wildlife movement corridors with native plant materials.

Implementation of Alternative 9 would require a total grading quantity of 8.9 million cubic yards The above outlined features of Alternative 9 would contribute to an incremental reduction in impacts to aesthetics and recreation, as compared to the proposed project, and similar or incrementally increased impacts to all other environmental factors evaluated in the Draft EIR. In addition, Alternative 9 incorporates the most recent position of the resource agencies (U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Army Corps of Engineers) pertaining to the location and width of the onsite wildlife movement corridors.

The Alternative 9 site plan is shown in Exhibit 1, with the contour grading concept shown in Exhibit 2 and the landscape and revegetation plan shown in Exhibit 3. Alternative 9 land uses are summarized in Table 1.

Table 1
Alternative 9 Land Use Summary

Land Use	Area	% of Site
· SF Residential Lots	47.1 Acres	21.2 %
· Streets	18.0 Acres	8.1 %
· Manufactured Slope (Including Park Areas)	54.0 Acres	24.3 %
· Remedial Grading (outside of lot slopes)	35.2 Acres	15.8 %
· Fuel Modification (outside of grading limits)	5.7 Acres	2.6 %
· Undisturbed Open Space	62.2 Acres	28.0 %
TOTAL ONSITE	222.2 Acres	100%
Offsite (EL Toro)	2.9 Acres	-
Water Tank Site	2.9 Acres	-
Offsite Fuel Mod.	2 4 Acres	-
TOTAL OFFSITE	8.2 Acres	-
TOTAL PROJECT	230.4 Acres	-

Alternative 9 proposes a total onsite impact area of 160.0 acres, 3.4 acres more than the proposed project, and 11.4 acres more than Staff Alternative 8. Total onsite undisturbed open space would be 62.2 acres or 28 % of the project site. Total onsite open space (including undisturbed and disturbed) would be 157.1 acres or 71% of the project site.

Land Use

The project site is located within the Bridlewood Residential District of the Foothill/Trabuco Specific Plan, and alternative 9 proposes 318 single family residential dwelling units on minimum 5,000 square foot lots (average 6,542 sf lots). This alternative would impact an incrementally larger portion of the project site (160 0 acres as opposed to the 156.5 acres for the proposed project) with project development, and would provide incrementally less undisturbed open space (62.2 acres vs 65.6 for the proposed project). Alternative 9 would provide for additional recreational amenities, as compared to the proposed project, including a passive park and trailhead staging area.

A major design feature of Alternative 9 is the single loaded primary spine road (residential development south of the spine road and landform grading to the north), which is intended to screen offsite views of the onsite development area. Landform grading and limited use of loffel walls are proposed to minimize the views of the development area from offsite locations. In addition, Alternative 9 would provide for a wildlife movement corridor system, including an at-grade spine road crossing, similar to Staff Alternative 8, which would effectively apportion the development into three residential areas. Additional single family residential dwellings

are proposed within the north central portion of the project site, as compared to the proposed project, which proposes undisturbed open space in the same area.
Much of the discussion on pages 4-1 through 4-17 of DEIR 561 remains appropriate for this alternative. The DEIR indicates that Zone Change 95-5, which would amend the Foothill/Trabuco Specific Plan and Area plan 95-7 are required approvals to implement the proposed project. The zone change would substitute the Residential Estates (Planned Development) District regulations of the Orange County Zoning Code for the existing Bridlewood Residential District land use regulations. The proposed project would be in conformance with the Housing Element of the Orange County General Plan through the implementation of appropriate mitigation measures.

No significant unavoidable adverse impacts to land use would occur with implementation of Staff Alternative 9.

Soils and Geology

Implementation of Alternative 9 would require 2.1 million cubic yards of cut and fill conventional grading and 6.8 million cubic yards of remedial grading (remove and replace) for a total grading quantity of 8.9 million cubic yards. The required grading for Alternative 9 would require 0.2 million cubic yards more than that required (8.7 million cy) for implementation of the proposed project. Grading quantities incrementally increased under this alternative as a result of the additional earthwork required to create the landform grading along the visually prominent project edges. As indicated in Table 1, Alternative 9 would result in 3.4 acres more disturbance area than the proposed project. A series of crib/retaining/loffel walls has been incorporated into this alternative to reduce remedial grading requirements, manufactured slope heights and minimize sensitive resource impacts. A supplemental geotechnical evaluation of Alternative 9 is included in Appendix A of this document.

Much of the general discussion on pages 4-18 through 4-37 of the DEIR and in Appendix D (Geotechnical Evaluation) of the Draft EIR remain appropriate for Alternative 9. Prior to implementation of mitigation measures, grading would result in significant impact related to slope stability, landslides, mudslides, subsidence and erosion. Review by County geotechnical experts, implementation of the proposed remedial grading features, including removals/cleaners, buttress construction, subsurface systems, and temporary stockpiling, would not result in any impact to the stability of adjacent properties. An average daily grading quantity of 30,000 cubic yards/day (total grading 8.9 million cubic yards) would require approximately 300 days (10 months) to complete grading operations.

No significant unavoidable adverse impacts to soils and geology would occur with implementation of Alternative 9.

Water / Hydrology

Alternative 9 would generate similar storm water runoff volumes and similar domestic water supply requirements, as the proposed project. Due to the enhanced habitat restoration and landform/contour grading provided with this alternative, temporary irrigation related water supply impacts are expected to be greater than the proposed project. In addition, this alternative would require less alteration of onsite natural drainages than the proposed project, incrementally reducing the potential for increased urban runoff impacts

Much of the discussion on pages 4-38 through 4-49 of the DEIR and Appendix E (Hydrology Study) in the Technical Appendices of the Draft EIR remain appropriate for this alternative Twelve (12) standard conditions/mitigation measures requiring compliance with the Master Plan of Drainage, NPDES, erosion control

strategies, construction of site drainage systems and compliance with county and state water quality management standards will result in no significant effects to water/hydrology under this alternative.

.Transportation and Circulation

Estimated traffic generation volumes associated with this alternative would be approximately 3.820 trips per day, identical to the proposed project. The resulting impacts to existing level of service values would be the same as identified in the Draft EIR for the proposed project.

The discussion on pages 4-50 through 4-78 of DEIR 561 and Appendix F (Traffic Report) of the Draft EIR of the Technical Appendices remain appropriate for this alternative. Because of its reduction from the recorded tract map and imposition of (41) PDFs, SCs and AMs, Alternative 9 will not result in any additional negative impacts. Implementation of Alternative 9 would result in the same improvements to El Toro Road through the existing Road Fee programs, similar to the proposed project.

No significant unavoidable adverse traffic and circulation impacts would occur with Alternative 9, following implementation of outlined mitigation measures.

Air Quality

Implementation of Alternative 9 would result in similar vehicular generated emissions as compared to the proposed project, and similar impacts to regional air quality. Temporary short term emissions associated with grading and construction operations would increase slightly over those associated with the proposed project, as a result of the additional grading requirements associated with the landform grading

All of the discussion on pages 4-79 - 4-97 and Appendix G (Air Quality Assessment) of the Draft EIR remain adequate for this alternative.

As with any large project located within the South Coast Air Basin, a non-attainment area, not projected to reach attainment until 2010 or later, Alternative 9 would result in unavoidable cumulative air quality impacts. If the alternative is approved, it will require the decision-makers to adopt a Statement of Overriding Considerations regarding air quality. This statement must indicate that the specific overriding economic, legal, social, technological or other benefits of the project outweigh the significant cumulative effect on the environment.

As with the proposed project, impacts to cumulative air quality would remain unavoidable and adverse.

Noise

A number of noise sensitive land uses are located in the vicinity of the project site including, St. Michael's Abbey, Ramakrishna Monastery, O'Neill Regional Park and residential land uses. Since the site currently contains no noise generating uses, development of 318 single family residential dwelling units would result in an increase in noise levels emanating from the project site. This change in noise levels, would be similar to noise generated by the proposed project and could be perceived to be intrusive to surrounding land uses Noise impacts to St. Michael's Abbey would be incrementally reduced under this alternative, as compared to the proposed project, as a result of relocation of the lots in close proximity to the Abbey on the north side of the spine road and the intervening topography that would be created by the landform grading However, the Alternative 9 land plan moves the primary spine road closer to St. Michael's Abbey, as compared to the proposed project, incrementally increasing spine road related noise impacts. Alternative 9 extends the limits of the upper portion spine road further to the west than the proposed project, resulting in residential lots being located within 600 feet of the

eastern Abbey property boundary. These noise impacts would be partially offset by the buffering effects of the landform grading proposed to screen views of the site from surrounding land uses. Impacts to the Ramakrishna Monastery, adjacent residential land uses and O'Neill Regional Park would be similar to those created by the proposed project.

All of the discussion on pages 4-98 - 4-115 of the DEIR and Appendix H (Acoustical Analysis) remain appropriate for this alternative. The 14 mitigation measures in the DEIR remain adequate to effectively attenuate noise impacts.

No significant unavoidable adverse impacts to noise would occur with implementation of Alternative 9.

Biological Resources

Alternative 9 has been designed in direct response to comments received on the Draft EIR from state and federal resource agencies and the public pertaining to the location and dimension of the propose onsite wildlife movement corridor. To address the concerns of the resource agencies, Alternative 9 was designed based on the biological features incorporated into Staff Alternative 8, which proposes a wildlife corridor system designed to adequately accommodate all wildlife movement through and around the site. Staff Alternative 8 designates the primary wildlife movement corridor as an east-west corridor, 500 feet wide, with an at-grade crossing. This east-west corridor is designed to accommodate larger mammal movement through and around the site. A secondary 150 foot wide north-south wildlife movement corridor is proposed in the same general location as the corridor incorporated into the proposed project, and would function as a corridor for small mammals and birds. The resource agencies support this type of hierarchal corridor system, and have indicated that it would help to meet the goals of the NCCP program to a greater extent than the proposed project. A supplemental biological evaluation of Alternative 9 is included in Appendix B of this document.

A comparison of the biological impacts of Alternative 9, Staff Alternative 8 and the proposed project is shown in Table 2.

Implementation of Alternative 9 would directly impact 160.0 acres of habitat onsite and 8.2 acres of habitat offsite to accommodate the construction of 318 single family residential dwelling units onsite Site alteration under this alternative would impact incrementally less habitat than the proposed project (43.3 acres of Venturan-Diegan transitional coastal sage scrub, 5.7 acres of Coast Live Oak Woodland, 3.3 acres of Southern Mixed Chaparral, 0.2 acres of Southern Sycamore Riparian Woodland, 2 0 acres of Mule Fat Scrub, 0.6 acres of Ephemeral Pond, 101.8 acres of annual grassland, and 3.1 acres of agriculture Impacts to coastal sage scrub would be 2.1 acres less than impacts associated with the proposed project. Of the 298 oak trees onsite, 175 or 59% would be impacted under Alternative 9, 8 trees more than the proposed project. The 0.6 acres of impacted ephemeral ponds would directly impact the Riverside Fairy Shrimp.

The proposed biological resource enhancement features of Alternative 9 are identical to Staff Alternative 8 and would more specifically meet the goals of the ongoing NCCP program, summarized as follows:

- Wildlife movement corridor system, including revegetation with native plant materials.
- Preservation of the highest quality onsite ephemeral pond would substantially reduce impacts to Riverside Fairy Shrimp.
- Implementation of all habitat restoration onsite

Table 2
Onsite Vegetation Impact Comparison
(Acres)

Habitat	Alternative 9			Staff Alternative 8			Proposed Project		
	Ex	Impact	%	Ex	Impact	%	Ex	Impact	%
Verturan Diegan Costal Sage Scrub	67.1	43.3	65	67.1	43.9	65	67.1	45.4	68
Coast Live Oak Woodland	14.5	5.7	39	14.5	5.7	39	14.5	7.4	51
Southern Mixed Chaparral	5.4	3.3	61	5.4	4.7	87	5.4	4.2	78
Southern Sycamore Riparian Woodland	0.5	0.2	40	0.5	0.4	80	0.5	0.3	60
Mule Fat Scrub	2.9	2.0	69	2.9	1.9	66	2.9	2.0	69
Ephemeral Pond	0 8	0.6	75	0.8	0.6	75	0.8	0.7	88
Annual Grassland	126.4	101.8	81	126.4	103.2	82	126.4	96.1	76
Agriculture	4.6	3.1	67	4.6	4.6	100	4.6	0.5	11
Total	222.2	160.0	72	222.2	148.6	67	222.2	156.6	71

Much of the discussion on pages 4-116 through 4-166 of DEIR 561 and Appendices I, J an K (Biological Assessment, Oak Tree Report and Pond Mitigation Plan) remain appropriate for the proposed alternative. Imposition of the 14 mitigation measures in the DEIR will mitigate most biological impacts. However, incremental increases in impacts to coastal sage scrub, oak woodland, ephemeral ponds and the Riverside fairy shrimp would remain significant under this alternative following mitigation.

If the alternative is approved, the decision-makers must adopt a Statement of Overriding Considerations regarding impacts to biological resources. This statement must indicate that the specific overriding economic, legal, social, technical or other benefits of the project outweigh the significant cumulative effect on the environment.

Impacts to biological resources under Alternative 9 would be reduced as compared to the proposed project Significant unavoidable adverse impacts to the Riverside Fairy Shrimp and coastal sage scrub would remain, as with the proposed project, until such time as a biological opinion and an interim loss habitat mitigation plan are approved by the applicable resource agencies.

Aesthetics

This alternative, as with the proposed project, would substantially alter the existing topography and visual character of the project site. Slightly less of the project site would be left in undisturbed natural open space as compared to the proposed project. The wildlife corridor system included in Alternative 9 would help to break up the long linear massing of housing which would result with implementation of the proposed project and create areas of housing separated 150 to 500 foot stretches of open space. In addition, overall aesthetic impacts to surrounding land uses would be reduced under this alternative, as compared to the propose project, do to the extensive use of landform grading along the visually prominent portions of the development edge

Visual impacts to St. Michael's Abbey would be reduced under this alternative as compared to the proposed project due to the relocation of residential lots north of the onsite spine road , extensive landform grading and implementation of a trail head/staging area. View impacts of the project site from the Ramakrishna Monastery would be reduced as compared with the proposed project by implementation of the wildlife corridor system and associated open space areas, and through the use of loffel walls which would reduce the height and intensity of adjacent manufactured slopes. The wildlife corridors would replace manufactured slope, housing and associated lighting with natural and revegetated open space. In addition, specialized grading proposed under this alternative to preserve the highest quality onsite ephemeral pond would create substantially less manufactured slope adjacent to the Monastery.

Most of the discussions on pages 4-167 thru 4-192 of the DEIR remain appropriate for this alternative. The 19 mitigation measures in the DEIR will reduce most impacts to below a level of significance. However, significant viewshed impacts to the Ramakrishna Monastery and O'Neill Regional Park would remain under this alternative.

If the alternative is approved, it will require the decision-makers to adopt a Statement of Overriding Considerations regarding aesthetic impacts. This statement must indicate that the specific overriding economic, legal, social, technological or other benefits of the project outweigh the significant cumulative effect on the environment.

Implementation of Alternative 9 would greatly reduce the significant unavoidable adverse aesthetic impacts to the Abbey. Significant unavoidable adverse aesthetic impacts would remain for the Ramakrishna Monastery and O'Neill Regional Park.

Cultural / Scientific Resources

Alternative 9 would result in incrementally more disturbance to the project site, as compared to the proposed project, and would have similar impacts to potential onsite cultural and scientific resources. CA-ORA-710 has been recorded in the vicinity of the knoll adjacent to the Abbey property, and would be preserved under this alternative.

All of the discussion on pages 4-193 thru 4-209 of DEIR 561 and Appendix L (Cultural Resources Assessment) remain adequate for this alternative. Imposition of the 21 mitigation measures in the DEIR, including PDFs, SCs and AMs will ensure that all project impact are reduced to below a level of significance.

No significant unavoidable adverse impacts to cultural scientific resources would occur with implementation of Staff Alternative 8.

Recreation

Alternative 9 would provide for enhanced recreational amenities as compared to the proposed project including access to existing and proposed trails, an interpretive trail head park / staging area, and an passive ridge top lookout park. Alternative 9 would achieve the goals outlined in the Recreation Element of the Foothill/Trabuco Specific Plan.

Much of the discussion on pages 4-210 through 4-218 of the DEIR remain appropriate for this alternative. The DEIR includes 15 mitigation measures relating to recreation, which require the applicant to provide trail connections and develop the view/lookout park.

No significant unavoidable adverse impacts to recreation would occur with implementation of Alternative 9.

Hazards

The project site is located in a high fire hazard area, and as a result, all future development would be subject to risk during wildfires. The circulation system proposed with this alternative provides for similar emergency access as the proposed project, with 241 units served off of a single means of access. It should be noted that Alternative 9 proposes a single loaded primary spine road onsite, which would reduce fire hazards to proposed residents by allowing for direct access to major onsite wildland areas and allowing for additional non combustible areas adjacent to residential areas. The location of the Alternative 9 hiking trail is proposed to travel through the primary east-west wildlife movement corridor, which could result in an increase in human/wildlife interaction hazards.

All of the discussion on pages 4-219 through 4-228 of the DEIR remain appropriate for Alternative 9 Because of the inclusion of nine (9) PDFs and (21) SCs, as well as the design features of the alternative, potential hazard impacts are reduced to below a level of significance.

No significant unavoidable adverse impacts to hazards would occur with Alternative 9.

Public Services

Demand for public services and utilities under Alternative 9 would be identical to the proposed project, due to the same number of proposed residential lots and associated residents. No unavoidable adverse impacts to public services and utilities would result under this alternative.

All of the discussion on pages 4-229 thru 4-241 of the DEIR remain appropriate for the provision of public services, including sheriff, fire, schools, library and solid waste. Because of the ten (10) PDFs and eighteen (18) SCs, no unavoidable impacts will be generated with the proposed alternative.

No significant unavoidable adverse impacts to public services would occur with Alternative 9

Utilities & Service Systems

Demand for utilities and service systems would be identical under this alternative, as compared to the proposed project, since the same number and type of residential units are proposed. All of the discussion on pages 4-242 thru 4-252 of the DEIR remain appropriate for the alternative regarding utilities and service systems , and the provision of water, wastewater, electricity, natural gas, cable and communications Because of the ten (10) PDFs and eight (8) SCs, no unavoidable impacts would occur under this alternative, in these service areas.

Conclusion

The impacts associated with implementation of Alternative 9 would be less than those associated with implementation of the proposed project for aesthetics and recreation, with all of the other environmental factors expected to experience similar or increased impacts. Impacts considered significant, unavoidable and adverse for the proposed project, as identified in the Draft EIR, would remain as such, with the exception of aesthetic impacts to St. Michael's Abbey , which would be greatly through the use of landform grading and the elimination of residential lots north of the onsite spine road. No additional significant adverse effects would occur as a result of implementation of Alternative 9 beyond those identified for the proposed project in the Draft EIR.

APPENDIX E

Staff Report, Board of Supervisors, October 22, 1996

GENDA ITEM TRANSMITTAL

Attachment D

CONSENT ☐
DISCUSSION ☐
PUBLIC HEARING ☒

BOARD OF SUPERVISORS COUNTY OF ORANGE

AGENCY/DEPT. USE

CEO REVIEW
☐ Concur
☐ Do Not Concur
☒ Exempt

CLERK USE ONLY

M: EMA FILE:

CONTACT FOR INFORMATION	PHONE
George Britton	834-5312
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MEETING DATE	SUBJECT	SUPV. DIST.
October 22, 1996	Saddleback Meadows Zone Change 95-5, Area Plan 95-7 and EIR 561 for California Quartet, Ltd.	3

MARY OF REQUEST (Description for agenda)

Consideration of Saddleback Meadows development proposal for California Quartet, Ltd., sisting of Draft EIR 561, Zone Change 95-5, and appeal of Area Plan 95-7.

ADDITIONAL DATA:

e following discussion summarizes the key issues related to the Saddleback Meadows ject. The attachments and exhibits contained within this transmittal package present detailed information on the issues related to this project, analysis of those issues, and ies of all documents associated with the processing of Draft EIR 561, Zone Change 95-5, Area Plan 95-7. The following section on procedural matters is a clarification of the processing complexities for the Saddleback Meadows development proposal.

(continued)

PREVIOUS RELEVANT BOARD ACTIONS ON THIS SPECIFIC ITEM:

e

ING SOURCE(S)	CURRENT YEAR COST	ANNUAL COST	BUDGETED? ☐ YES ☒ NO
N/A	N/A	N/A	N/A

PROPOSAL REQUIRE ADDITIONAL PERSONNEL?

NO IF YES, STATE NUMBER PERMANENT LIMITED TERM

CONSISTENT WITH BOARD POLICY?

☒ YES ☐ NEW ITEM OR EXCEPTION

MENDED ACTION

Conduct public hearing.
Adopt draft Resolution certifying EIR 561 (Attachment 8).
Adopt draft Ordinance for staff alternative Zone Change 95-5 (Attachment 7) which provides for a maximum of 299 dwelling units and a minimum of 70% open space on 223 acres.
Adopt draft Resolution which serves to approve Alternative 8 Area Plan 95-7 to include thirty-three conditions of approval (Attachment 9).

RRENCES (If applicable)

ATTACHMENTS

See page 7.

ity Counsel

10/10/96
DATE

homas B. Mathews
rector of Planning, EMA
ah(6082716562647)

John W. Sibley, Acting Director, EMA

ADDITIONAL DATA (continued):

PROCEDURAL MATTERS:

Although this project has been subject to "concurrent processing" per standard County procedures, the Planning Commission actually considered three separate aspects of this project, including draft Environmental Impact Report (EIR) 561, Zone Change 95-5 and Area Plan 95-7.

Regarding the status of EIR 561, by a unanimous vote, the Commission determined that the EIR adequately describes the environmental impacts of the proposed project and the alternatives, including Staff Alternative 8, and has recommended that your Board certify this document.

The second item relates to the zone change (which is a proposed amendment to the Foothill/Trabuco Specific Plan). The subject property is part of the "Bridlewood Residential District." These district regulations exempt Saddleback Meadows from other provisions of the Specific Plan. As discussed in more detail below, the applicant's proposal is for 318 detached single-family houses. As with the CEQA issue, the Planning Commission's action on a zone change is advisory to your Board. As described below, a majority of the Commission did not vote to recommend any change to the current zoning. Section 65855 of the Government Code requires that your Board can act on a zone change only after consideration by, and a recommendation from, the Planning Commission. Therefore, what is now before your Board is the applicant's request for a zone change accompanied by a negative recommendation from the Planning Commission. As a legislative action, your Board has full discretion in taking action on the zone change itself.

The third item relates to the area plan. Pursuant to the County Zoning Code, the Planning Commission is the decision-making body for area plans. After considering this aspect of the project, the Commission voted to deny the area plan consistent with their action on the zone change. Subsequent to the Planning Commission action, the applicant, California Quartet, Ltd., appealed this decision to your Board and reiterated their desire that the zone change case be forwarded to your Board, pursuant to Government Code Section 65856 (see Attachments 5 and 10).

As far as the area plan is concerned, Zoning Code Section 7-9-150.4(d) outlines the options which are at your Board's disposal for this appeal:

1) Approve or disapprove the application;
2) Add, modify or delete conditions;
3) Approve a modified application; or
4) Refer the application back to the approving authority with directions for action by the approving authority or for recommendations or reports to the Board of Appeals.

BACKGROUND

The Saddleback Meadows property consists of 222 undeveloped acres currently used for cattle grazing. It is located on the easterly side of El Toro Road near Valley Vista Way and is in the western edge of the Foothill/Trabuco Specific Plan area. North of the project site is St. Michael's Abbey, which operates a boarding school for boys. South of the project site is Hidden Hills/Hidden Ridge residential development, O'Neill Regional Park, and the Ramakrishna Monastery. West of the project site is the Portola Hills residential development. Attachment 1 contains a discussion of site conditions, current land use regulations, and surrounding uses.

Saddleback Meadows has a current entitlement to develop 705 manufactured homes and 1.7 acres of commercial use in compliance with Recorded Tract Map 10692. The applicant began its efforts to develop this property in April, 1994, with the submittal of a grading permit application to develop Recorded Tract Map 10692 consistent with the Saddleback Meadows Planned Community Regulations. In January, 1995 the Planning Commission, while considering appeal of the requirements to prepare an EIR as the appropriate CEQA documentation for the grading permit, requested the applicant consider a redesign of his 705 manufactured housing project. The applicant withdrew its appeal and proceeded with a redesign of the project site. Attachment 2 contains a chronology of key events for processing of this project.

APPLICANT'S PROJECT PROPOSAL AS PRESENTED TO THE PLANNING COMMISSION

In response to the January, 1995 Planning Commission request for a redesign, the applicant developed a proposal requesting that: 1) the Bridlewood Residential District of the Foothill/Trabuco Specific Plan be amended (Zone Change 95-5) to permit 318 dwelling units and a continuation of the exemption from other provisions of the Foothill/Trabuco Specific Plan; and, 2) a conceptual plan of development be approved (Area Plan 95-7) to allow for the eventual development of 318 detached single-family homes with approximately 68% dedicated open space areas.

The applicant's proposed project is presented in Attachment 6 and Exhibit D and is discussed in detail in Attachment 3.

The proposed project was reviewed by the Foothill/Trabuco Specific Plan Review Board. In summary, they recommended that the project be limited to 110 dwelling units, have a design similar to EIR 561 Alternative 4, and be consistent with all provisions of the Foothill/Trabuco Specific Plan. The Minutes of the Review Board are contained in Exhibit A.

Although staff acknowledged at the Planning Commission hearings that the applicant's 318 detached single-family homes proposal is superior to the existing Recorded Tract Map 10692 entitlement for 705 manufactured homes, staff determined that it was unacceptable because it did not provide the following:

1) An east-west wildlife corridor viable enough for NCCP purposes.
2) A useable recreational trail alignment.
3) A satisfactory level of "rural character."
4) A lower density of development.
5) 70% dedicated open space requirement.

STAFF ALTERNATIVE 8 PRESENTED TO THE PLANNING COMMISSION

As a result of the analysis for the applicant's project proposal, EMA staff recommended to the Planning Commission approval of Alternative 8, a modified Zone Change and Area Plan that provide for the following:

Zone Change

- A maximum of 299 dwelling units.
- A minimum of 70 percent dedicated open space.
- Substantial overall compliance with the Foothill/Trabuco Specific Plan.

Area Plan

- A maximum of 299 dwelling units.
- A minimum of 400' wide east-west wildlife corridor.
- An east-west recreational trail system.
- Substantial overall compliance with the Foothill/Trabuco Specific Plan.
- Thirty-three conditions of approval.
- Development of a rural character.

The density cap of 299 dwelling units was selected, based primarily on the fact that (1) the adjacent existing development in Portola Hills and Hidden Hills/Hidden Ridge is at twice the staff recommended density and (2) the General Plan allows up to 444 units for this property. The 70 percent dedicated "natural open space" (see below) will contribute to a rural character. In addition, several conditions of approval regarding future development and design further this goal. The area plan, as conditioned, will be in substantial overall compliance with the Foothill/Trabuco Specific Plan.

EMA recommends that the Zone Change include a definition of natural open space as follows:

> "The open space area remaining after approved development is completed that has a natural appearance and will remain undisturbed thereafter except for possible approved fuel modification. Such areas may include, depending on design and landscaping, passive parks, manufactured slopes, and recreation trails, but shall not include athletic fields or golf courses."

This recommendation is consistent with earlier actions of the Board of Supervisors regarding two other developments in Foothill/Trabuco. For each project, the Planning Commission and the Board of Supervisors took action regarding open space which allowed approved grading in the areas to be dedicated as "natural open space." Staff is recommending the same standard for Saddleback Meadows.

The staff-proposed project is presented in Attachment 7 and Exhibit E and is discussed in detail in Attachment 3.

PLANNING COMMISSION ACTION

The Planning Commission conducted five public hearings on this project. Key issues raised during the hearing process and written comments on Draft EIR 561 are discussed in Exhibit G and are summarized in Attachments 3 and 4.

At their final hearing (on July 30, 1996), the Planning Commission recommended certification of EIR 561 by the Board of Supervisors. The Planning Commission was unable to agree on a recommendation to change zoning and, therefore, denied the Zone Change. In addition, and based largely on this fact, they denied the Area Plan.

Individual members of the Commission stated that they were not opposed to the project, per se, but that they could not agree on the appropriate density (number of dwelling units) for the project. One member advocated a maximum of 100 units, two members advocated a maximum of 260 units, and two members advocated the applicant's proposed 318 units but would be willing to compromise with the staff alternative of 299 units. Four members expressed support for the design footprint of Alternative 8, one member supported the design footprint of Alternative 4. The Planning Commission did not express objection to other elements of staff Alternative 8 Zone Change or any of the Area Plan's thirty-three conditions of approval (see the Minutes of the Planning Commission contained in Exhibit B).

COMPLIANCE WITH CEQA

Draft EIR 561 has been prepared in compliance with the requirements of the CEQA Statutes and Guidelines as well as County of Orange procedures to address the environmental impacts related to the proposed Saddleback Meadows project. It was circulated for public review on February 5, 1996. The comment period on Draft EIR 561 closed on March 25, 1996. Written comments were received from 60 parties; oral testimony before the Planning Commission was received from approximately 50 parties. The Response to Comments (RTC) document was prepared and circulated to commentors on June 28, 1996.

Based on the DEIR and the Response to Comments documents, staff has concluded that EIR 561 provides adequate CEQA documentation for Staff Alternative 8 (as described more fully above and in Attachment 7 and Exhibit E and Attachments 3 and 4). On July 30, 1996, the Planning Commission concurred with staff's conclusion and voted to recommend that your Board certify EIR 561.

Proposed Final EIR 561 consists of the following:

- Draft Board of Supervisors Resolution Certifying Final EIR 561, including Exhibit 1: Statement of Findings and Facts in Support of Saddleback Meadows Project and Exhibit 2: Statements of Overriding Considerations.
- Draft EIR 561, Volume 1
- Technical Appendices, Volumes 2 and 3
- Response to Comments Documents
- EMA Reports, including Attachments, and Planning Commission Minutes dated March 19, 1996, April 2, 1996, June 5, 1996, July 10, 1996 and July 30, 1996.

Further steps were taken by staff to provide information on an additional alternative which was developed by the applicant as a result of public testimony received at the Planning Commission hearings. To this end, an Alternative 9 document, consisting of the applicant's conceptual area plan (Alternative 9) and an assessment of its environmental impacts was distributed on September 20, 1996.

The complete CEQA documentation is found in Attachments 4 and 8 and Exhibit G.

Your Board, using independent judgement, must certify Final EIR 561 prior to taking any action to approve the project which is now before you. Exhibit G consists of a Draft Resolution which will serve to certify EIR 561.

APPLICANT'S NEWLY PROPOSED ALTERNATIVE 9 FOR BOARD OF SUPERVISORS CONSIDERATION

As noted in the letter transmitting this alternative area plan, the applicant has modified the original project as detailed in Exhibit F. In the interest of ensuring widespread understanding of this alternative, EMA distributed it and an assessment of its environmental impacts, Response to Comments Document #2, to interested parties on September 20, 1996.

This alternative reflects several concepts which were presented by various speakers in public hearings before the Planning Commission, but they have been presented as a coherent package within the parameters of an area plan for the first time in the document contained in Exhibit F.

In sum, staff has concluded that Alternative 9, if modified to have a ceiling of 299 units, has merit in that it responds to concerns raised in public testimony and correspondence related to aesthetics and land use compatibility. Environmental impacts are essentially the same as those for Staff Alternative 8. No new unavoidable adverse impacts have been identified.

SUMMARY

Your Board is being asked to consider three specific recommendations for action on the Saddleback Meadows Project. Those staff recommended actions are as follows:

1) Adopt the draft Resolution certifying EIR 561 prior to taking any actions to approve the project (see Attachment 8).

2) Adopt the draft Ordinance for Staff Alternative Zone Change 95-5 (see Exhibit B) which provides for a maximum of 299 dwelling units and a minimum of 70% dedicated open space. However, if the Board through consideration of public testimony and deliberation at the public hearing selects a different maximum number of dwelling units for Zone Change 95-5, staff would recommend that a minimum of 70% dedicated open space still be required for the project.

3) Adopt the draft Resolution which serves to approve Alternative 8 Area Plan 95-7 to include thirty-three conditions of approval (Attachment 9).

Should your Board act on a variation of Staff Alternative, as documented in Attachment 7 and Exhibit E, staff recommends that these exhibits be revised and returned to you on the Consent Calendar Agenda for November 19, 1996.

ATTACHMENTS

1. Existing Conditions (site conditions, current land use regulations, surrounding uses)
2. Chronology of Events
3. Principal Land Use Issues
   A. Density/transition area
   B. Grading/geotechnical safety/performance bond
   C. Natural open space
   D. Rural character
   E. Wildlife corridors
   F. Recreational trails
   G. Major ridgelines
   H. Viewshed
   I. Specific Plan compliance
4. Discussion of Principal CEQA Issues
   A. Grading
   B. Land Use Compatibility/Aesthetics
   C. Biological: NCCP Program
   D. Biological: Endangered Species
   E. Biological: Wildlife Corridor
   F. Biological: Oak Woodlands
   G. Rejection of Alternatives
   H. Air Quality
   I. Recreation
   J. Consultant Selection/Hiring
5. Appeal Letter, August 2, 1996
6. Applicant's Zone Change for 318 units
7. Staff Alternative Zone Change for 299 units
8. Draft Resolution to certify EIR 561
9. Draft Resolution to approve Staff Alternative 8 Area Plan with 33 Conditions of Approval
10. County Counsel Opinion on the Appeal Procedures

EXHIBITS

A. F/T Review Board Minutes
B. PC Minutes & Staff Reports
C. Project Consistency Checklist
D. Applicant's Area Plan (original)
E. Staff Alternative 8 Area Plan
F. Applicant's newly submitted Alternative 9 Area Plan
G. Proposed Final EIR 561

APPENDIX F

Letter to Board of Supervisors, December 17, 1997

County of Orange
Planning & Development Services Department

THOMAS B. MATHEWS
Attachment D
300 N. FLOWER ST
THIRD FLOOR
SANTA ANA, CALIFORNIA

MAILING ADDRESS
P.O. BOX 4041
SANTA ANA, CA 92702-4041

TELEPHONE
(714) 834-4643
FAX # 834-2771

December 17, 1997

Members, Board of Supervisors
County of Orange
10 Civic Center Plaza
Santa Ana, CA 92702

Dear Board Members:

During hearings on October 22 and December 3, 1997, this Commission has considered the environmental documentation required for implementation of the project known as Saddleback Meadows (Subsequent Environment Impact Report (SEIR) No. 566). As you know, this project involves the implementation of a previously-approved subdivision allowing 705 units of manufactured housing as well as a small commercial site.

The property in question is one of the most difficult sites with which this Commission has ever dealt. The site's geology is complex; biology sensitive; and compatibility with the adjoining land uses (St. Michaels Abbey and the Ramakrishna Monastery) is extremely problematic.

After exhaustive (and exhausting) testimony and deliberations on the topic, our Commission certified SEIR No. 566. We concluded that the document has merit and that it conforms with the California Environmental Quality Act. We did not conclude that the project addressed in the SEIR has merit, however.

As a result of out efforts to review land use issues associated with this project, we as a Commission would like to recommend in the strongest possible terms that your Board revisit an alternative zoning designation for Saddleback Meadows. Specifically, a majority of this Planning Commission feels that Alternative 4, as portrayed in SEIR No. 566, has far fewer negative enviornmental impacts.* Commissioner Moody, while not supportive of that particular alternative, does agree that the 705-unit development is an inappropriate land use for this location.

Our understanding, based on advice from County Counsel and planning staff, is that our options to deviate from the project as described in SEIR No. 566 were limited to modifications solely within the CEQA frame work. Further, we believe that your Board has the authority to reconsider the previously-denied zone change. We urge you to do so.

Very truly yours,

Shirley Commons Long

Shirley Commons Long, Chair
Orange County Planning Commission

cc: Members, Planning Commission
Tom Mathews, Director P&DSD

* Please note that this is the alternative which was recommended to your Board on October 22, 1996, by the Planning & Development Services Department and was more fully addressed in Proposed Final EIR No. 561. The zoning associated with that alternative was denied at that point and that EIR was not certified.

APPENDIX G

Revised Biological Assessment
Helix Environmental Planning, Inc.

HELIX environmental planning, inc.

MEMORANDUM

date: 2-20-98

to: Carlene Baskovitch, Urban Vision

from: Scott Taylor

cc: Mike McKnight, TPG
Eric Ruby, Westec

subject: Saddleback Meadows, Modified Alternative 4

This memo provides an analysis of biological issues for the Modified Alternative 4 of the Saddleback Meadows project. The results of our analysis are presented under four issues: corridor analysis, vegetation impacts, oak tree impacts, and sensitive species impacts. This analysis is based on the Alternative 4 – 299 Lots Development Plan Concept map (February 10, 1998).

Corridor Analysis

The corridor analysis is based on the results of a study in San Diego County for Otay Ranch (Ogden 1992) According to this study, an "ideal" corridor provides at least 500 feet of vegetative cover with 250 foot native vegetation buffers. For corridors where development is not visible from the corridor, a narrower buffer would be acceptable In instances where corridors are relatively short (that is, less than 500 feet long), the corridor should be no less than 400 feet in total width At interfaces with developed areas, vegetative or opaque fencing was recommended to reduce visibility of developed areas from the corridor.

The wildlife corridor through Saddleback Meadows under Modified Alternative 4 would traverse the southern and eastern site boundary next to O'Neill Regional Park, then cross through the site in the northern half It is planned on a west-facing slope

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that is on the west side of an existing saddle that is approximately 1,540 feet in elevation above sea level. The narrowest point of the corridor is where it crosses through a 'pinch point' between residential development blocks

The corridor pinch point for Modified Alternative 4 is 400 feet wide with 50-foot setbacks on each side and approximately 800-feet long. Most of this pinch point falls within the remedial grading zone, except for a patch approximately 300-feet long and 200-feet wide at the eastern end of the corridor that would remain undisturbed. A 50-foot wide spine road for the development would cross the corridor at grade. The middle strip of the graded portion of the corridor, approximately 200-feet wide, would be restored to native vegetation. The next 200 feet out (100 feet on each side) would be within the non-irrigated fuel modification zone. The outer 100 feet (50 feet on each side) would be landscaped as an irrigated fuel modification zone.

Overall, positive and negative aspects of the corridor's design and revegetation plans for this project's mitigation will increase the viability of the wildlife connectivity through Saddleback Meadows The corridor, as planned in this alternative, is expected to be wide enough for wildlife movement. Topography on either side of the corridor is conducive to wildlife movement because it coincides with an area of natural canyon topography. The revegetation within the corridor is expected to provide the necessary cover for wildlife to add to the corridor's viability. The 50-foot wide spine road crossing the corridor is not expected to inhibit wildlife due to the low traffic levels anticipated for this road. This wildlife corridor is expected to function adequately

Vegetation Impacts

Impacts due to this alternative would be similar to those for the project. Modified Alternative 4 would impact approximately 160 0 acres of the site, leaving 62 2 acres in undisturbed open space (Table 1).

Approximately 45 8 acres of Venturan-Diegan transitional coastal sage scrub (including 2.5 acres off site), 5 7 acres of coast live oak woodland (175 individual oaks), 0 21 acre of southern sycamore riparian woodland, and 2 01 acres of mule fat scrub will be impacted by the proposed project. In addition, all but two of the manmade stock ponds (0 6 acre) supporting the Riverside fairy shrimp will be directly impacted. One of the preserved ponds is just west of the former ranch while the other is in the southeast corner of the site near O'Neill Canyon All of the above impacts are significant according to the California Environmental Quality Act. A federal Clean Water Act permit issued by the U S Army Corps of Engineers will be necessary for direct impacts to 3.1 acres of wetlands (2.01 acre of mule fat scrub and 0 21 acre of southern sycamore riparian woodland and 0.88 acre of Waters of the U.S (intermittent streams [0.28 acre] and manmade stock ponds [0.6 acre]) A streambed

alteration agreement with the California Department of Fish and Game will also be required for the 2.62 acres of impacts to wetland vegetation.

Oak Tree Impacts

Based on the recent oak inventory (SEB 1995), total of 175 oak trees (approximately 59 percent) occur within the remedial grading zone and are considered impacted. A total of 123 oak trees (approximately 41 percent) occur outside the remedial grading zone and are considered preserved.

Sensitive Species Impacts

Eight stands of Catalina mariposa lily and three stands of intermediate mariposa lily fall completely or partially within the impact area of Modified Alternative 4. Two stands of Catalina mariposa lily and one stand of intermediate mariposa lily will likely remain to some degree despite the impact. An estimated 259 of the 435 individuals of Catalina mariposa lily will likely be lost, leaving an estimated 176 individuals in two stands in open space or within the non-irrigated fuel modification zones These impacts are not significant because of the low level of sensitivity of the plant, its generally wide distribution in southern California, and the relatively small population size on site Two stands of intermediate mariposa lily (9 individuals) will be graded, while one stands (9 individuals) are within the non-irrigated fuel modification zone and are assumed to remain. This impact is not significant because of the small size of the on-site population.

The orangethroat whiptail, coastal whiptail, at least five cactus wren territories, and at least 10 southern California rufous-crowned sparrow territories would be affected by the loss of 45.8 acres of Venturan-Diegan transitional coastal sage scrub. The western spadefoot occurs on the property in at least two ponds, one of which would be impacted by the proposed project These impacts are significant but mitigable considering the low level of sensitivity of these species. Cooper's hawks were found foraging on site, but no nests were observed Impacts to Cooper's hawks will, therefore, be limited to foraging habitat and are not significant The 0 6 acre of impacts to manmade stock ponds will impact the Riverside fairy shrimp, and this impact is considered significant

In accordance with the NCCP, the loss of 45 8 acres of Venturan-Diegan transitional coastal sage scrub due to the project is less than the allowable 5 percent of the total coastal sage scrub in the subregion According to the NCCP Evaluation Logic Flow Chart, the coastal sage scrub on the project site has intermediate value for long-term conservation because although it is not the most dense coastal sage scrub in the region, it is located next to a higher value district (O'Neill Regional Park).

Table 1

SADDLEBACK MEADOWS MODIFIED ALTERNATIVE 4
EXISTING VEGETATION AND PROJECT IMPACTS

Habitat	Existing Acreage	On-Site Impacts	Percent	Preserved On-Site	Percent	Off-Site Impacts
Venturan-Diegan transitional coastal sage scrub (disturbed and undisturbed)	67.1	43.3	65%	23.8	35%	2.5
Coast Live Oak Woodland (acreage/individuals)	14.5/298	5.7/175	39%/ 59%	8.8/123	61%/ 41%	0.0
Southern Mixed Chaparral	5.4	3.3	61%	2.1	39%	1.25
Southern Sycamore Riparian Woodland	0.5	0 2	40%	0.3	60%	0 01
Mule fat Scrub	2.9	2 0	69%	0 9	31%	0.0
Ephemeral Pond	0 8	0.6	75%	0.2	25%	0.0
Annual Grassland	126 4	101.8	81%	24.6	19%	3.0
Agriculture	4 6	3.1	67%	1.5	33%	0.0
Total	222.2	160.0	72%	62.2	28%	6.76

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APPENDIX H

Geology Report, Volume I
G.A. Nicoll and Associates, Inc.

June 25, 1998
Project 4816–04.3

TPG Management, Inc.
1601 Dove Street, Suite 105
Newport Beach, California 92660–2441

Attention: Messrs. Pike Oliver and Michael McKnight

Subject: Supplemental Geotechnical Assessment for
Contingency Plan – 299 Lots
Saddleback Meadows Development
Orange County, California

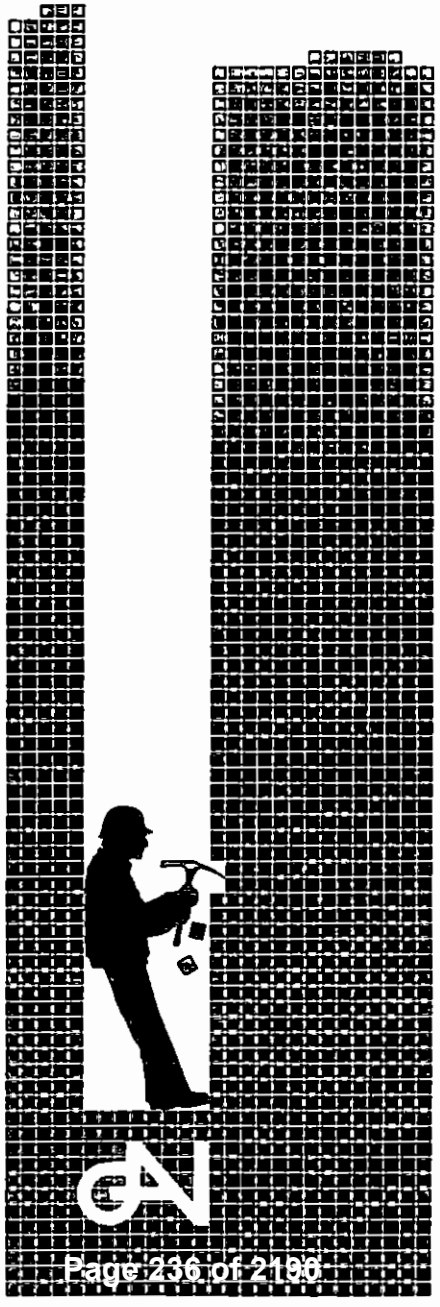
Gentlemen:

1. INTRODUCTION

a) This report presents the results of our supplemental investigation for the Saddleback Meadows Contingency Plan – 299 Lots, prepared by Michael Madden Associates, dated February 10, 1998.

b) The Contingency Plan is the product resulting from the revision and compilation of earlier development concept plans. The Contingency Plan contains 299 residential lots.

c) The Contingency Plan, which was prepared by Hunsaker and Associates, and used as the base plan for our Geotechnical EIR contained 318 lots. This 299–lot Contingency Plan by Michael Madden Associates is geotechnically very similar, with only minor changes, mostly involving the proposed loffel walls.



d) References cited during the most current investigation and for previous work on the site are presented in *References, Appendix A*. The Geotechnical EIR for Tentative Tract 15230 is dated November 27, 1995 *(presented as Reference No. 9)*. Our previous Geotechnical Investigation report for Tentative Tract 10692, the Entitled Plan, is dated January 6, 1994 *(Reference No. 8)*.

e) The current Saddleback Meadows Contingency Plan contains minor earthwork revisions, including graded berms for use as view shed barriers.

f) Geotechnical Cross Sections A–A', B–B' and C–C' from the 318 Lot Plan have been revised showing the new grades. The site geology and the locations of exploratory excavations are shown on the *Geologic Map, Plate 1*. The Geologic Key is shown on *Plate 2*. The Logs of Borings for the most recent site exploration are included in this report (Borings BC–1 through BC–17). Logs of Borings and Test Pits for previous exploration by GANA and other consultants are found in the GANA report dated January 1, 1994 (Ref. 8).

2. PURPOSE

a) The purpose of this investigation was to evaluate the Saddleback Meadows Contingency Plan and its impact on the site conditions, to revise the previous geotechnical cross sections to reflect the new grades, to conduct stability analyses and to provide other additional geotechnical data to supplement our previous Geotechnical EIR of November, 1995.

b) A secondary purpose was to evaluate the extent of the removal areas, the grading envelope and the estimated removal volumes.

3. SCOPE

The scope of services we have provided for this assessment is outlined as follows:

a) Evaluation of the Contingency Plan grades and their impact on the site;

b) Revision of the Geotechnical Cross Sections A–A', B–B' and C–C' to evaluate stability influence of new grades;

c) Conducted static and pseudostatic stability analyses along portions of the revised cross sections;

d) Review and evaluation of major landslide structures and re–evaluation of the materials shear strengths to provide clarification of changes from previous reports;

e) Preparation of graphic illustrations;

f) Evaluation of the extent of removal areas, the grading envelope and the estimated removal volumes;

g) Preparation of this report presenting our findings, conclusions and recommendations.

4. QUALIFICATIONS

a) A more detailed evaluation of the slope stability, including analyses of buttress backcuts and forecuts, individual cut slope buttresses, etc. will be conducted during the 40–scale grading plan review which accompanies the grading permit application.

b) Although no major changes are anticipated in the final grading plan from the current plan, any revisions will be reviewed and re–analyzed, if required.

c) Shear strength parameters utilized in our Slope Stability analyses are presented in Section 9,d. They reflect the lower values, or the more conservative results of tests obtained from samples taken from the site. The shear test results are presented in *Direct Shear Diagrams, Figures 2 and 3.*

5. FIELD EXPLORATION

a) The first generated Logs of Borings, test pits and dozer pits, excavated prior to our latest site exploration are presented in the January 6, 1994 report.

b) Logs of Borings excavated during the most recent subsurface exploration on the site are presented in the *Field Exploration, Appendix B*. Boring, Test Pit and Dozer Pit locations are shown on the *Geologic Map, Plate 1*.

6. STABILITY ANALYSES

The results of our stability analyses for the major landslides on–site are presented in the *Stability Analyses, Appendix C, Volume 1 (cross sections with results) and Volume 2 (Computer Output)*. All procedures and results conform to the County of Orange Grading Code regulations. Stability analyses were conducted utilizing the Alternate 4 plan grades.

7. SITE CONDITIONS

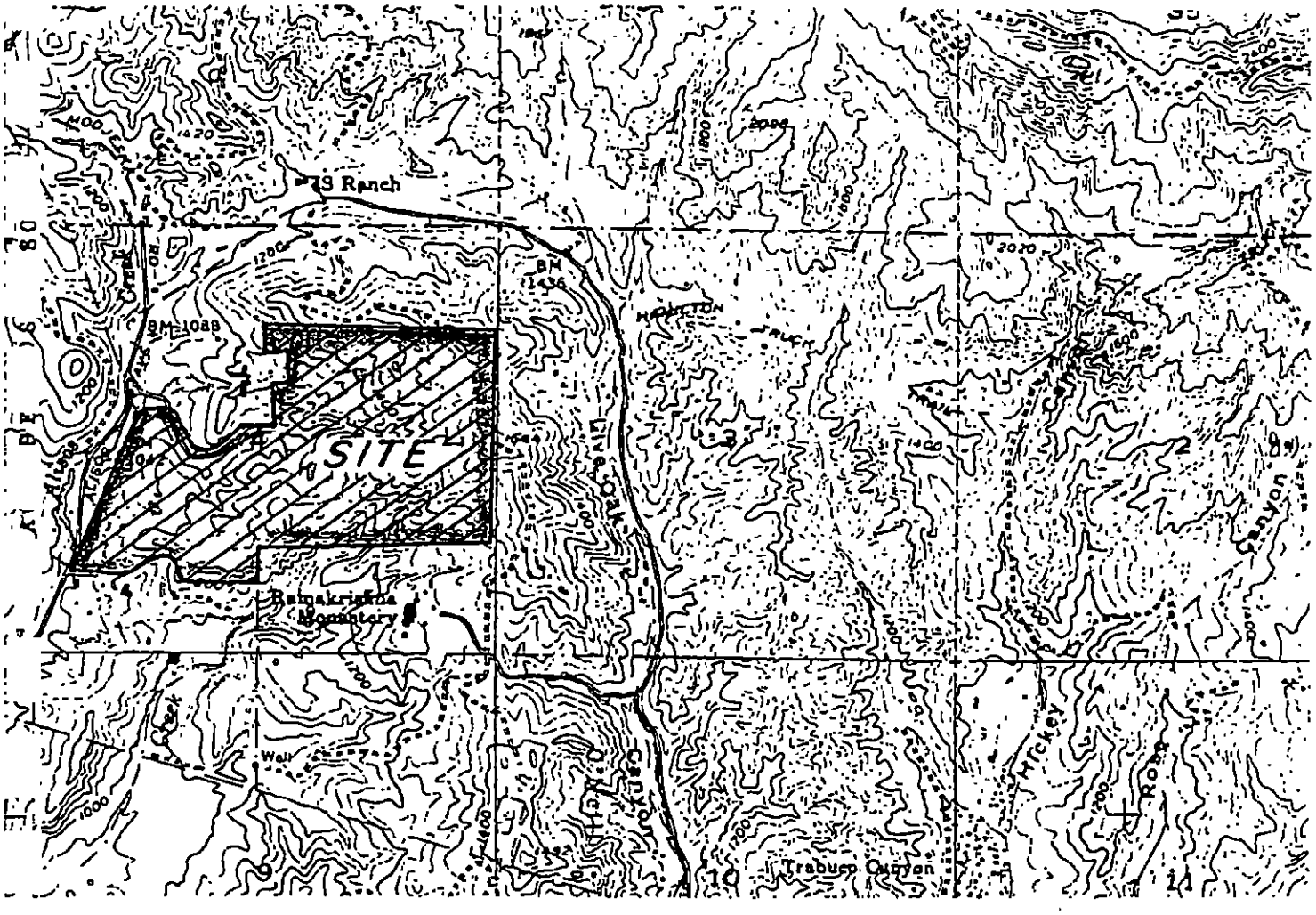
7.1 Location

The location of the site is shown on the *Location Map, Figure 1*.

7.2 Surface Conditions

A description of the surface conditions at the site is presented in the November, 1995 report. Based on several site visits since our most recent subsurface exploration, the site conditions are essentially unchanged, with the exception of some additional erosion within the canyon along the north boundary with the Abbey property and within the gullies on site.

LOCATION MAP



Base Map: USGS Santiago Peak Quadrangle
7.5 Minute Series , 1982

NORTH

2000 0 2000 4000
scale feet

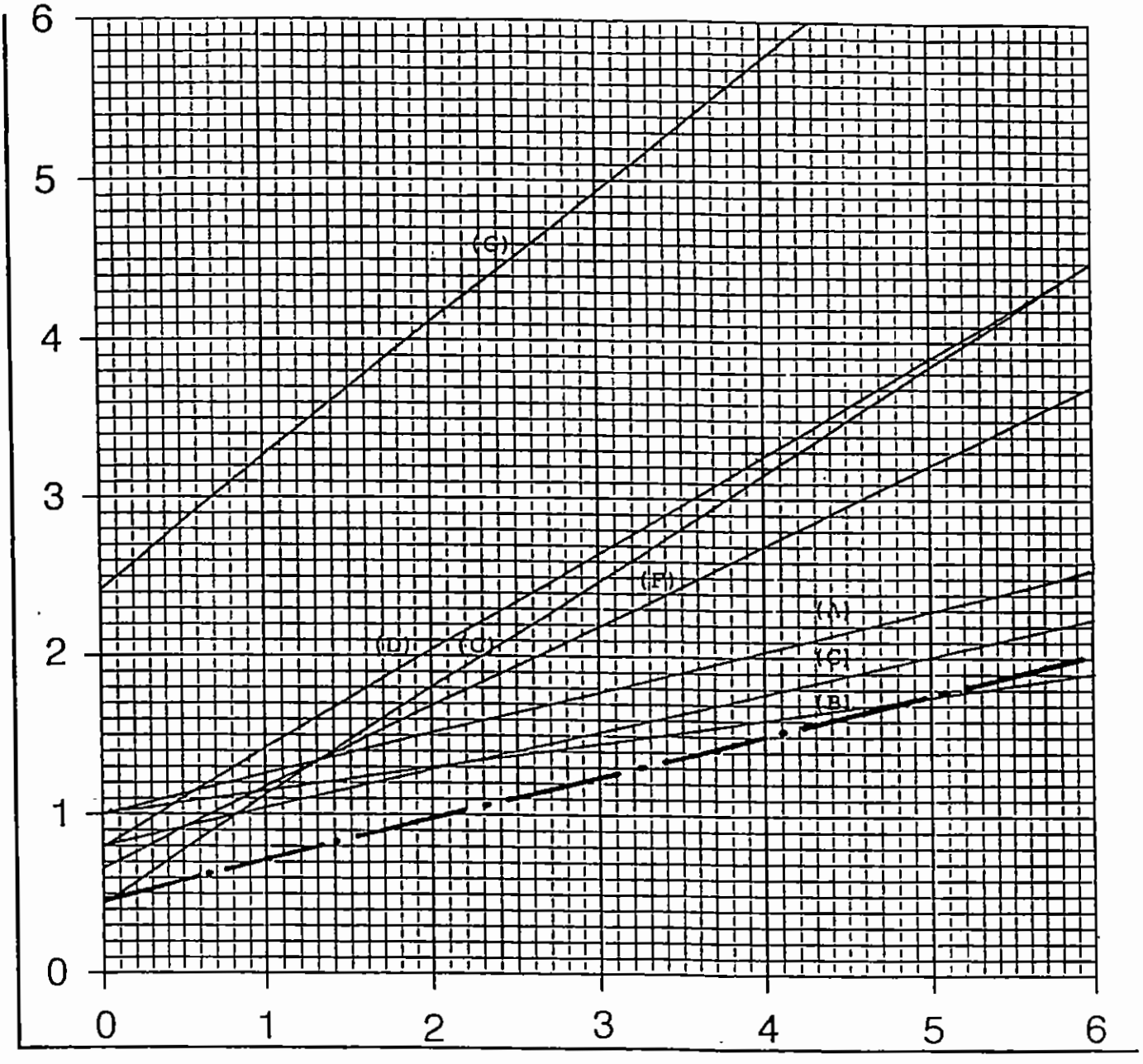
G A NICOLL & ASSOCIATES
EARTH SCIENCE CONSULTANTS

Saddleback Meadows	
Date: June, 1998	
Project No. 4816-04.3	Figure No 1

OP GRAPHICS/ACCUPRESS
ORDER NO A2860-3

DIRECT SHEAR TEST DIAGRAM

(PEAK RESULTS)



Boring No.	Sample Depth	Undisturbed/ Remolded	Boring No.	Sample Depth	Undisturbed/ Remolded
(A) BA-2	85-86	Remolded	(E) BA-13	138	Undisturbed
(B) BA-2	85-86	Undisturbed	(F) BC-4	46.5	Undisturbed
(C) BA-3	131	Undisturbed	(G) BC-2	44	Undisturbed
(D) BA-6	69-69.5	Undisturbed			

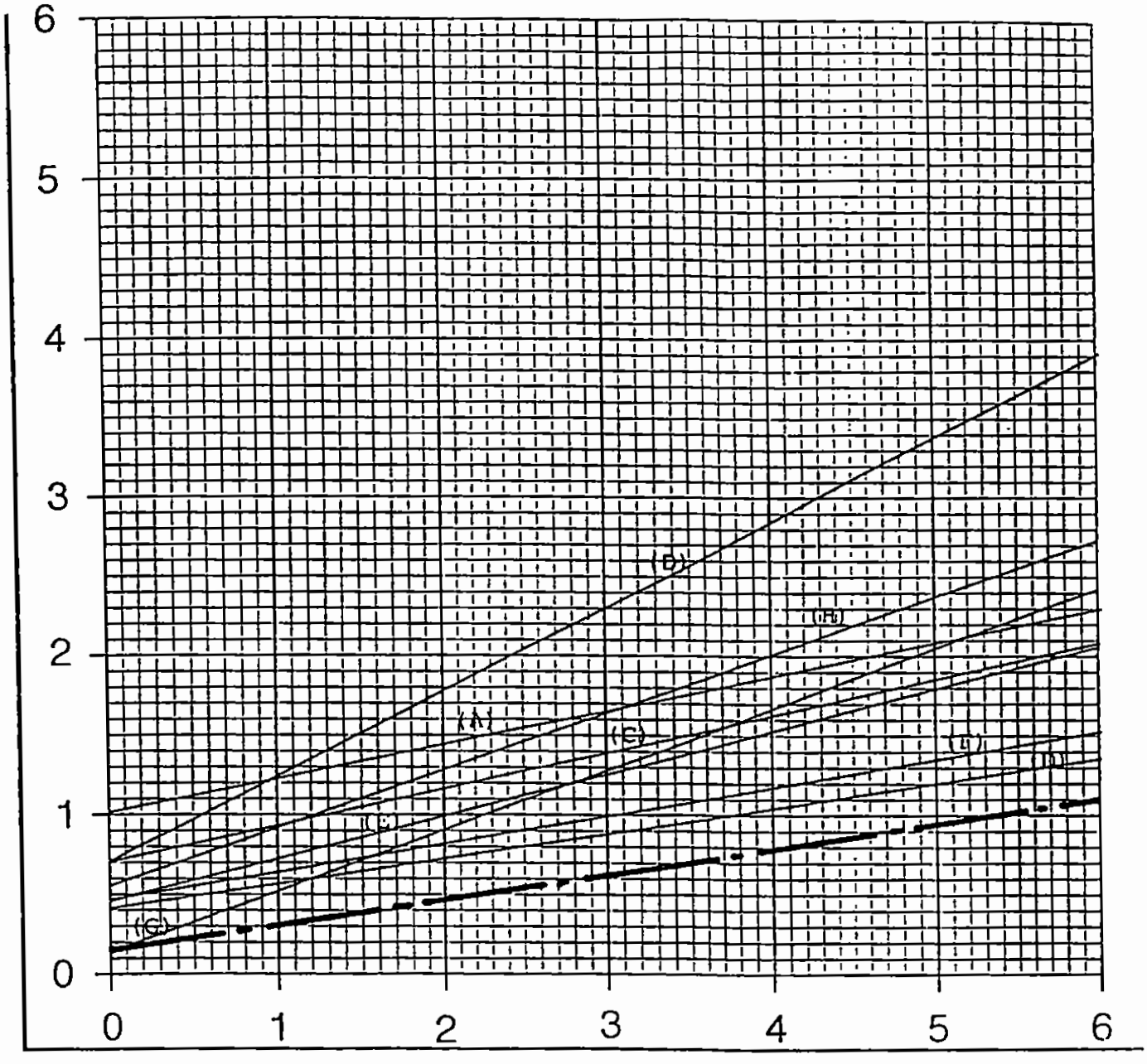
—•— Plot of values used for pseudo-static

G.A. Nicoll And Associates, Inc.
Earth Science Consultants
Tustin, California

Project Name:	Saddleback Meadows
Date	June 1998
Project No.:	4816 04.3
Figure No.:	2

DIRECT SHEAR TEST DIAGRAM

(RESIDUAL/RESHEAR RESULTS)



Boring No	Sample Depth	Residual Reshear	Undisturbed/ Remolded	Boring No.	Sample Depth	Residual Reshear	Undisturbed/ Remolded
(A) BA-2	85-86	Reshear	Remolded	(E) BA-13	138	Residual	Undisturbed
(B) BA-2	85-86	Residual	Undisturbed	(F) BA-13	138	Reshear	Undisturbed
(C) BA-3	131	Reshear	Undisturbed	(G) BC-4	465	Residual	Undisturbed
(D) BA-6	69-69 5	Residual	Undisturbed	(H) BC-12	44	Residual	Undisturbed

—•— Plot of values used for static stability analyses

G.A. Nicoll And Associates, Inc.
Earth Science Consultants
Tustin, California

Project Name	Saddleback Meadows
Date	June 1998
Project No	4816 04.3
Figure No.	3

7.3 Geologic Conditions

a) The geologic conditions at the site are essentially the same as those presented in the November, 1995 report, maps and cross sections.

b) Some minor adjustments have been made to the cross section where changes were warranted by additional review and analysis of the subsurface data.

c) Explanations for the changes made to the geologic conditions shown in the January 6, 1994 report are presented in this report.

8. REVISED GEOLOGIC CONDITIONS

a) A number of changes have been made to the geologic map and cross sections for the January 6, 1994 report. These changes were included in the Geologic Map and Geologic Cross Sections in the November 27, 1995 report. As a result of new subsurface data found in our recent Borings BC–1 through BC–17 and from additional field mapping, a number of changes have been made on the geologic map and cross sections for our January 6, 1994 report.

b) These revisions are shown in the cross sections for this report and in the November 27, 1995 report, and they are summarized and described as follows:

8.1 Central Ridge Area

a) The ridge area above and to the east of the old ranch house was originally shown as a landslide with a possible lower slide surface; Cross Section 7–7', Plate 9 illustrates this in the January, 1994 report.

b) Section B–B' of the November, 1995 report and in this report, depicts the revised geologic structure in this area.

c) The landslide interpretation was eliminated for the following reasons:

i) The Petra boring data, in Boring PB–9 does not show any shears or landslide materials.

ii) The bedrock materials observed in our recent deep Borings BC-5, BC-12 and BC-14 were observed to be essentially undisturbed and only minor shear surfaces were observed in the borings. A slide surface deeper than the BC-5 and BC-12 borings is very unlikely.

iii) The rupture surface logged in Boring BB-13, located just south of the east end of Section B-B', was originally interpreted as a basal landslide surface. We have, however, determined that since the surface was not encountered in PB-9, it must pass beneath the boring, which would cause the extrapolation of any potential slide surface to occur well below the deepest slide surface shown in Section B-B'. Therefore, the shear surfaces encountered in Boring BB-13 are interpreted as being of a tectonic derivation since it is unreasonable to assume that basal landslide surfaces would be present at the projected depth. The structural projection of the "basal surface" in the BB-13 boring is shown on the upper east end of Section B-B' of this report.

iv) Based on our geologic mapping in the canyon north of the ridge, we regard the exposed bedrock on the south side of the canyon is undisturbed and the materials on the north side are disturbed.

v) Regardless of whether there is a slide or no slide condition present, the only consequence would be a negligible variation in remedial grading quantities. If a slide is present, an estimated 4 percent increase in the remedial grading quantities would be required to construct an upper shear key in the area of Boring BC-14. However, there would be no change in the present grading envelope.

8.2 Reconstruction of Landslide Structure

8.2.1 Main Slide Area (Sections A-A' and B-B')

a) Our subsurface exploration that was conducted within the past year was initiated to provide more detail to the structure of the deeper slide surfaces and refine remedial grading quantities

b) Boring BC-1 was drilled to encounter and confirm the location of the basal slide surface shown in Sections 2-2' and 3-3' of the January 6, 1994 report. Section A-A' of this report was constructed essentially along the same line as section 2-2'.

c) At a depth of 120 feet, BC-1 did not encounter this projected slide plane which had been expected from the information obtained in BA-9 and BC-1 (in Section 2-2'). However, an ash bed and a thick, fat, sheared clay zone was encountered at 152 to 154 feet, which was interpreted as the slide material encountered in BA-9.

d) Based on the projection of the rupture zones in BA-9 and BC-1, the structure was extrapolated upslope and downslope along Section A-A' and generally parallel to the known structures; becoming flat and then warping upward along the fault zone to the west and becoming steeper, upslope to the east.

e) Another deeper slide surface was constructed based on the subsurface date from Borings BA-4 and B-22. Structurally, it generally parallels the BA-9 surface.

f) A hypothetical slide surface was constructed connecting the lower and intermediate surfaces in the area of the A-A'/B-B' intersection (refer to the queried, dashed contact).

g) A shallower slide surface was constructed based on boring data found in Borings BA-3 and BA-11. The upper and lower splays to the west represent two hypothetical options. They represent the toe geometry typical of generic landslides common to the south County.

8.2.2 Southerly Slide Area (Section C-C')

a) Cross Section C-C' of the November 27, 1995 report and C-C' in this report were constructed generally along the same trend as Section 4-4' of the January 6, 1994 report.

b) Based on the subsurface data from our recent Boring BC–15 and a re–evaluation of boring data from B–7, B–36, BA–13 and PB–10, we have eliminated the deep slide interpretation in the east half of Section C–C'. The shallow landslides remain.

c) Along Section C–C', the first deep slide surface from the east that passes through B–37 and beneath PB–29 is a hypothetical surface. The intermediate surface above is based on data from B–37 and PB–29.

9. SLOPE STABILITY ANALYSES

a) Slope stability analyses were performed using the UTEXAS2 Slope Stability computer program on what has been determined to be typically critical cross sections. The output documents for the slope stability analyses are presented in the *Stability Analyses, Appendix C, Volume 2.*

b) The strength parameters utilized in the analyses were selected based on the combined results of the field exploration, data from prior consultants and our laboratory test data. The laboratory shear tests include those which were conducted on specimens from hand–driven samples collected by a geologist during the down–hole logging process. They were obtained from the borings drilled specifically to explore the actual rupture surfaces. Lastly, the shear strength values used reflects those values used for similar previous investigations completed over the years in the same and adjacent site areas. The test results were reported in our previous report *(Reference January 6, 1994 report).*

c) The strength parameters used in the static analyses are based on the residual shear strengths, whereas those used in the seismic analyses are based on the peak strengths. Graphic plots of the laboratory results of the shear tests are shown in *Figures 2 and 3.* They also depict the shear strength values used in our slope stability analyses. It is notable that the values used in the analyses are more conservative than the actual strengths obtained.

d) The shear strengths used in the analyses are as follows:

Geologic Conditions	Angle of Friction (degrees)		Cohesion (lb/ft^2)	
	Static	Seismic	Static	Seismic
Rupture Surface	9	15	150	450
Fill	25	28	250	450
Bedrock/Across Bedding	30	30	350	350
Along Bedding	21	21	138	138

e) Remedial measures have been proposed where the factors of safety failed to reach the required 1.5 for the static condition and 1.1 for the seismic condition. The remedial grading is shown on the enclosed cross sections in Appendix C. Although the horizontal acceleration of 0.15g is required by County Code, the application of it to this site and to the computer programs for slope stability currently in vogue are in doubt; the values have been increased to meet the County standard.

10. CONCLUSIONS AND RECOMMENDATIONS

a) The remedial grading required for the Saddleback Meadows Contingency Plan – 299 Lots (dated June 22, 1998) is significantly reduced from the 705–unit grading concept for the original Entitled Plan. The total Remedial Grading quantity is approximately 6.8 million cubic yards.

b) We conclude that the site is developable.

The opportunity to be of continued service is sincerely appreciated. If you have any questions, please call.

Very truly yours,

G. A. NICOLL AND ASSOCIATES, INC

Gerald A. Nicoll
President
CEG 34
(Exp. December 31, 1999)

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GAN/MBU/GDH:cn/ck

Enclosures:

Location Map	–Figure 1, Text
Direct Shear Test Diagrams	–Figures 2 and 3, Text
References	–Appendix A
Field Exploration	–Appendix B
Unified Soils Classification System	–Figure B–1
Logs of Borings	–Figures B–2 through B–18
Stability Analyses	–Appendix C
Geologic Map, Plate 1 (from November 1995 report)	–In pocket
Geologic Key, Plate 2	–In pocket
Cross Sections	– Plates 3 to 5 (in pockets)
Computer Output Documents	–Volume 2

APPENDIX A

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APPENDIX B

Field Exploration

a) The site was explored utilizing a truck–mounted bucket auger drill rig to excavate 17 borings to depths of 77 to 173 feet below the existing ground surface. All borings were subsequently backfilled. Approximate locations of the borings are shown on the *Geologic Map, Plate 1*, of the November 1995 report.

b) The soils and bedrock encountered in the borings were logged and sampled by our Geologist. The soils were visually classified in accordance with the Unified Soil Classification System described in *Figure B-1*. The Logs of the Borings are presented in *Figures B-2 to B-18*. (The logs, as presented, are based on the field logs, modified as required from the results of the laboratory tests.) Driven ring and bulk samples were obtained from the excavations for laboratory inspection and testing. The depths at which the samples were obtained are indicated on the logs.

c) The number of blows during sampling was recorded, together with the depth of penetration, the driven weight and the height of fall. The energy required per foot of penetration for given samples was then calculated, and is indicated on the logs. These drive energies provide a measure of the density or consistency of the soil.

d) Ground water and seepage was encountered as noted on the Logs of Borings.

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOLS	DESCRIPTIONS
COARSE GRAINED SOILS (More than 50% of material is LARGER than No 200 sieve size.)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size.)	CLEAN GRAVELS (Little or no fines)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amount of fines)	GM	Silty gravels, gravel-sand-silt mixtures.
			GC	Clayey gravels, gravel-sand-clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size.)	CLEAN SANDS (Little or no fines)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amount of fines)	SM	Silty sands, sand-silt mixtures.
			SC	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size.)	SILTS AND CLAYS (Liquid limit LESS than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, loan clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

PARTICLE SIZE LIMITS

SILT or CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

No.200 No.40 No.10 No.4 3/4 in. 3 in. 12 in.

U. S. STANDARD SIEVE SIZE

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Saddleback Meadows
County of Orange, CA
Date: June 1998
Project No 4816 04.3
Figure No. B 1

LOG OF BORING

Drill Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	24 inches	1146 feet	BC-1

Date Drilled: 5/23/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						0		CL	Sandy CLAY: dark grayish-brown, moist, stiff
									@ 4-7 feet, some thin light brown sand partings and carbon pieces
						5			
									@ 7-9 feet, more Sandy and lighter colored @ 8 feet, 8 inch layer of Siltstone fragments @ 9 feet, 6 inch layer of Siltstone fragments COLLUVIUM
								SM	Silty SAND: fine-grained, light brown, damp, medium dense; with fine sand laminations and scattered carbon pieces and some thin layers of Siltstone fragments
	11.48					10			
									@ 14-15 feet, thin layers of Siltstone gravel
						15			
									@ 18 feet, more dense and becomes slightly Clayey
									@ 19.6 feet, becomes more Sandy
	17.23					20			
									@ 21 feet, becomes very Sandy, still fine-grained; 12 inch layer of Sand with Siltstone fragments
									@ 24 feet, layer of Siltstone fragments @ 25.6 feet, Contact: N40E,11NW
						25		CL	Sandy CLAY: dark greenish-gray, moist, stiff, with Siltstone fragments and some carbon
								SC	Clayey SAND: fine-grained, greenish-gray, moist, dense
								ML	Sandy SILT: dark greenish-gray, moist, stiff

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Figure No B-2.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1146 feet	BC-1
Date Drilled: 5/23/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE: Blk	SAMPLE: Tube	Drive Energy Ft. Kips/Ft	Field Moisture % Dry Weight	Dry Density Lb/Cu Ft	Shear Resistance Kips/So Ft	Depth, Feet	Soil/Rock Symbol	Soil/Rock Type	Description and Remarks
	12.91					35		LANDSLIDE MATERIAL	Sandy, Clayey SILTSTONE: greenish-gray, moist, weathered, blocky fracture to 32 feet @ 32-33 feet, Sandy SILTSTONE: greenish-gray Silty SANDSTONE: fine- to medium-grained, medium greenish-gray, very dense @ 35.5 feet, becomes fine-grained @ 36 feet, medium- to coarser-grained @ 36.6 feet, becomes fine-grained and yellowish-greenish-gray; very Silty @ 37.5 feet, Bedding: N-S,11W; on laminations @ 38 feet, Siltstone ripups @ 39.6-41 feet, Contact: N10E,36NW (scour surface)
	43.02					40			Clayey SILTSTONE: dark greenish-gray and reddish-brown, very stiff Sandy SILTSTONE: dark greenish-gray, stiff, with thin red-brown Siltstone beds @ 42 feet, becomes more Sandy @ 43.5 feet, less Sandy, very stiff @ 44 feet, 12 inch dark greenish-gray Siltstone bed @ 45 feet, 12 inch red-brown Sandy SILTSTONE bed with green-gray mottling @ 46-48 feet, Sandy Clayey SILTSTONE with cemented nodules (carbonate) @ 48 feet, becomes Sandy SILTSTONE again with some red-brown mottling to 49 feet @ 49 feet, becomes more Sandy @ 49.6 feet, very fine Silty SANDSTONE bed, green-gray @ 51 feet, thin disc. cem. layer @ 51-52.5 feet, very fine Silty SANDSTONE: green-gray @ 51.6 feet, thin white cemented layer: N10W,11SW @ 52.7 feet, slight seepage at base of cemented layer @ 52.7-53.3 feet, very Sandy, medium green-gray Sandy SILTSTONE; grades to Silty SANDSTONE
	60.23					45			Silty SANDSTONE: very fine- to fine-grained, greenish-gray, very dense, saturated @ 54.5 feet, water weeping from sidewall (wet, grades to Sandy SILTSTONE Sandy SILTSTONE: medium to dark greenish-gray, very stiff, wet (sidewall weeping) @ 59 feet, still wet
						50			
						55			

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Figure No. B-2.2

LOG OF BORING

Drill Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	24 inches	1146± feet	BC-1
Date Drilled: 5/23/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
	43.43					65		LANDSLIDE MATERIAL	@ 61 feet, light brown inclusions @ 64 feet, tubular structures, still wet @ 65 feet, tubular structures, still wet
						70			Silty SANDSTONE: very fine- to fine-grained, medium to dark greenish-gray, very dense, saturated @ 67 feet, less moist, no sidewall weeping @ 68 feet, becomes dark green-gray
	43.43					75			Sandy SILTSTONE: interbedded greenish-gray and reddish-brown, with some 6-12 inch red-brown Clayey SILTSTONE beds and some 18-24 inch Silty SANDSTONE Beds @ 74-75 feet, dark greenish-gray @ 75-76 feet, red-brown @ 76-78 feet, very fine to fine-grained Silty SANDSTONE @ 77.5 feet, white carbonate nodules @ 78-79 feet, red-brown Clayey SILTSTONE @ 79-80.5 feet, dark greenish-gray @ 80.5-81.5 feet, red-brown Clayey SILTSTONE @ 81.5-82.5 feet, dark greenish-gray @ 82.5-84 feet, green-gray Silty SANDSTONE @ 84 feet, 2 inch irregular, light gray cemented bed: N40W,10SW @ 84.2-84.6 feet, very Sandy, green-gray @ 84.6-85.6 feet, red-brown @ 85.6-86.5 feet, dark green-gray @ 86.5-88 feet, red-brown @ 88-89 feet, dark green-gray @ 89-90 feet, red-brown
						80			
						85			

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Saddleback Meadows
County of Orange, California

Project No.:	Figure No.:
4816-04	B-2.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1146± feet	BC-1
Drilled: 5/23/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						95			@ 90-92 feet, dark greenish-gray @ 92-94 feet, very fine, dark greenish-gray Silty SANDSTONE @ 93.6 feet, white cemented nodules (carbonate) @ 94-95 feet, red-brown @ 95-98 feet, dark greenish-gray, grades to Silty SANDSTONE @ 98-103 feet, very fine- to fine-grained Silty SANDSTONE: greenish-gray
						100		LANDSLIDE MATERIAL	@ 101 feet, white carbonate nodules @ 103-104 feet, reddish-brown Sandy SILTSTONE @ 104-105 feet, dark greenish-gray, more Sandy @ 105 feet, white carbonate layer @ 105-107.5 feet, red-brown Clayey SILTSTONE with white carbonate nodules @ 107.5-108.5 feet, dark greenish-gray Sandy SILTSTONE @ 108.5-110 feet, red-brown Clayey SILTSTONE (no cemented nodules)
						105			@ 110-111 feet, dark greenish-gray Sandy SILTSTONE @ 111-111.5 feet, red-brown Clayey SILTSTONE @ 111.5-112.5 feet, dark greenish-gray, Sandy SILTSTONE @ 112.5-113.5 feet, reddish-brown @ 113.5 feet, becomes greenish-gray @ 114 feet, becomes green @ 115-118 feet, fine-grained, dark green-gray Silty SS
						110			
						115			@ 118-119 feet, cemented @ 119-120 feet, red-brown Clayey SILTSTONE with cemented nodules

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SADDLEBACK MEADOWS
COUNTY OF ORANGE, CALIFORNIA

Project No: 4816-04

Figure No: B-2.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1144± feet	BC-1

Date Drilled: 5/24/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions

SAMPLE Blows	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						125		LANDSLIDE MATERIAL	@ 120-121 feet, dark green-gray slightly Clayey Sandy SILTSTONE with cemented nodules @ 121-122.5 feet, red Clayey SILTSTONE @ 122.5-123.5 feet, dark greenish-gray Sandy SILTSTONE @ 123.5-124.7 feet, cemented @ 124.7-126 feet, cemented @ 126-128.5 feet, dark greenish-gray Sandy SILTSTONE with cemented nodules, more cemented from 127-127.5 feet @ 128.5-129 feet, red-brown @ 129-133 feet, medium greenish-brown Sandy SILTSTONE
						130			@ 130.5-132.5 feet, lots of cemented nodules
	136.61								@ 133-134.5 feet, very fine, medium greenish-gray, very dense Silty SANDSTONE @ 134.5 feet, becomes Sandy SILTSTONE again, medium brownish-gray, very stiff
						135			@ 136 feet, becomes medium greenish-brown @ 137 feet, greenish-gray @ 138 feet, becomes darker and more Sandy @ 139.5-142 feet, red-brown Clayey SILTSTONE
						140			@ 142 feet, becomes greenish-gray Sandy SILTSTONE @ 143.5 feet, water level on 5/25/95 (boring bailed)
						145			@ 147-148 feet, yellowish-brown ash bed @ 148-149 feet, yellowish-brown to red-brown Sandy SILTSTONE @ 149-150 feet, greenish-gray Silty SANDSTONE with yellow-brown and red-brown SILTSTONE Beds (less stiff)

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Figure No: B-2.5

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1144 feet	BC-1
Date Drilled 5/25/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE										
B.	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						155		LSM	@ 150-152 feet, fine- to medium-grained Silty SANDSTONE: medium greenish-gray @ 152-153 feet, greenish-gray ASH Bed (bentonitic?) @ 153-154± feet, thick, reddish-brown (5YR4/3) CLAY Bed, very plastic, with red-brown and greenish-gray ASH (or bentonite) fragments and a thin, cemented, light gray ASH Bed LANDSLIDE MATERIAL
						160			Bottom of Boring at 154 feet. Notes: 1) Water level at 143.5 feet. (elev. 100.5') on 5/25/95 from seepage accumulation. 2) Seepage at 53-65 feet. 3) Boring bailed and then down-hole logged. 4) Boring backfilled. 5) County EMA issued temporary stop work order and boring could not be deepened.
						165			
						170			
						175			

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Figure No: B-2.6

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1319 feet	BC-2
Drilled 6/22/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
								Silty SANDSTONE: very fine- to fine-grained, medium greenish-gray, dense
								@ 1-2 feet, broken ash bed, pink and pinkish-gray and greenish-gray: N5W,16SW. thin shear at base and greenish-gray Silty SS below
					5			@ 5 feet, becomes light to medium greenish-gray
								@ 7.6-8.6 feet, cemented, oxidized SS bed
								@ 8.6 feet, 5 inch broken Sandstone bed
								@ 9 feet, 3 inch dark greenish-gray SS bed: N20W,15SW; fractured
					10			@ 9.3 feet, 8 inch Sandy Siltstone bed
	68.9	11.9	123.7					@ 10 feet, fine-grained, greenish-gray
								@ 12.6 feet, grades to Sandy Siltstone
							LANDSLIDE MATERIAL	Sandy SILTSTONE: dark greenish-gray, stiff
					15			@ 15 feet, more sandy
								@ 15.6 feet, more sandy and darker
								@ 17.6 feet, less silty
								@ 19.6 feet, more silty and dark greenish-gray
					20			@ 21.3-22 feet, Clayey SILTSTONE: dark greenish-gray, disturbed, sheared, some remolded clay at 21.5 feet
								@ 21.7 feet, Rupture Surface: N3E,12NW, well developed, no striations
								@ 21.7-22 feet, thinly laminated
								@ 22 feet, Bedding: N3E,12NW
					25		BEDROCK	@ 25 feet, grades to very fine Silty SS
								Silty SANDSTONE: very fine-grained, greenish-gray
								@ 28 feet, 12 inch Sandy Siltstone bed, greenish-gray
								@ 29 feet, becomes medium greenish-gray
								@ 30 feet, more Silty

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Figure No: B-3.1

LOG OF BORING

Drilling	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1319 feet	BC-2
Date Drilled 6/22/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
94.64								@ 31 feet, more Sandy @ 33 feet, more Silty @ 34 feet, more Sandy, greenish-gray @ 35.6 feet, more Silty; grades to Sandy SILTSTONE
					35			Sandy SILTSTONE: greenish-gray, grades to Silty SANDSTONE
								Silty SANDSTONE: fine-grained, greenish-gray
					40			@ 40 feet, slight seepage from hairline fracture: N60E,75SE @ 42 feet, less Silty and coarser and salt and pepper appearance
					45		BEDROCK	Clayey SILTSTONE: pinkish-brown, very stiff, possible bentonite or Ash Bed
								Sandy SILTSTONE: medium greenish-gray @ 49 feet, more Sandy @ 50 feet, Silty SANDSTONE bed
					50			@ 52.6 feet, more Silty @ 54 feet, less Silty @ 54.6-55.5 feet, fine, cemented Silty SANDSTONE bed
					55			Silty SANDSTONE: fine-grained, cark greenish-gray
68.24	19.2	108.8						Volcanic ASH: pinkish-brown, undisturbed

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Saddleback Meadows
County of Orange, California

Project No 4816-04

Figure No B-3.2

LOG OF BORING

Drill Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1319 feet	BC-2
Date Drilled: 6/22/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						60			Sandy SILTSTONE: greenish-gray @ 60 feet, becomes olive-brown
									Silty SANDSTONE: fine-grained, dark greenish-gray @ 62 feet, becomes coarser
						65			Sandy SILTSTONE: medium greenish-gray @ 65.6 feet, becomes lighter colored @ 69 feet, becomes darker colored
						70			Silty SANDSTONE: fine-grained, dark greenish-gray with thin, wavy laminations of light sand, some minor cross bedding
									Sandy SILTSTONE: greenish-gray
	31.02	19.2	108.8			75			Clayey SILTSTONE: brown to olive-brown, very stiff @ 75 feet, becomes disturbed with some internal shearing @ 75.3 feet, sheared, bentonitic clay, pinkish-brown and brown, remolded, plastic @ 75.6-76 feet, irregular rupture surface: N10W,15SW; 1-2 inch very plastic clay above surface, some lineation down dip
						80		BEDROCK	Sandy SILTSTONE: greenish-gray @ 77 feet, more Sandy
									Silty SANDSTONE: fine-grained, greenish-gray @ 82.6 feet, becomes fine- to medium-grained and olive brown
						85			@ 85 feet, dark greenish-brown, very moist @ 89 feet, becomes dark greenish-gray VAQUEROS-SESPE FORMATION

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Project No. 4816-04

Figure No: B-3.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1319 feet	BC-2
Drilled 6/22/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE									Description and Remarks
TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE		

Bottom of Boring at 90 feet.
Notes:
1) Seepage at 40 feet.
2) No caving.
3) Boring down-hole logged and backfilled.

95
100
105
110
115

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Figure No.: B-3.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1365 feet	BC-3

Drilled: 6/23/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE B.	TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT.	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						0		CL	Sandy CLAY: grayish-brown, moist, firm
									@ 4 feet, lighter colored and sandstone chunks, less clayey
						5		SC	Clayey SAND
									@ 7-8 feet, irregular contact dips west
									GRABEN SOIL
**		28.71				10			Silty SANDSTONE: fine-grained, medium green-gray, very closely fractured and disturbed, loose blocky zones
									@ 12 feet, Fractures: N45E,80NW; N40E,70NW
									@ 12-16 feet, open fractures, sheared, general structure: N80W,60SW
									@ 14.6-17 feet, large inclusion of Sandy CLAY
**		<5.74				15			
									@ 17-24 feet, very fine-grained, generally
						20			@ 20-28 feet, some caving, mostly on SW side
		<5.74							
									@ 24 feet, more coarse
						25			
									@ 27 feet, offset bed pink ash: N65W,20NE
									@ 27-29 feet, open fractures
									** No Recovery

LANDSLIDE

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Project No.: 4816-04

Figure No.: B-4.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1365 feet	BC-3
Date Drilled 6/23/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE									Description and Remarks
BLOW	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY (LB/CU FT)	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOILROCK SYMBOL	SOILROCK TYPE	
									Silty SANDSTONE: fine-grained, green-gray with some red-brown oxide staining (specks)
									@ 88 feet, more Sandy
									VAQUEROS-SESPE FORMATION
						95		BEDROCK	Bottom of Boring at 92 feet.
									Notes:
									1) Seepage at 61 feet.
									2) Caving at 20-28 feet.
									3) Water at 90 feet after logging.
									4) Boring backfilled.
						100			
						105			
						110			
						115			

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Project No. 4816-04

Figure No. B-4.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1365 feet	BC-3

Date Drilled: 6/23/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ.FT	DEPTH FEET	SOILROCK SYMBOL	SOILROCK TYPE	Description and Remarks
☐	12.91	14.2	110.6				LANDSLIDE	@ 34 feet, becomes dark greenish-gray, Sandy SILTSTONE, very broken @ 36.5 feet, Slide Plane: N-S,14W; striations dip S 60W; W/1-2" remolded, pinkish-gray and green-gray bentonitic Clay LANDSLIDE MATERIAL
☐	21.51	23.6	87.6		35			Volcanic ASH: medium gray, soapy texture VAQUEROS-SESPE FORMATION
					40		BEDROCK	Silty SANDSTONE: very fine-grained, medium green-gray, very dense @ 40-41 feet, slightly cemented VAQUEROS-SESPE FORMATION Sandy SILTSTONE: green-gray, very stiff @ 41.5 feet, becomes olive-brown
					45			@ 48 feet, becomes less Sandy and medium to dark greenish-gray @ 48.5-49 feet, SILTSTONE BED: N5W,14SW; dark green-gray @ 49.5 feet, 6 inch cement bed @ 51-52.5 feet, cemented
					50			Silty SANDSTONE: very fine-grained, dark green-gray @ 53.5 feet, becomes brown @ 54.5 feet, becomes coarser and lighter colored and salt and pepper appearance VAQUEROS-SESPE FORMATION
					55			Sandy SILTSTONE: olive-brown, very stiff @ 58.5-59 feet, cement nodules, minor shearing @ 59 feet, green-gray

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Figure No.: B-4.2

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1365 feet	BC-3
Drilled: 6/23/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU. FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
									@ 61 feet, seepage from 2 fractures: N50E,80NW
									@ 62 feet, becomes more Sandy
									@ 63 feet, olive-brown and less Sandy
						65			@ 65 feet, dark reddish-gray
									@ 67-68 feet, hard
									@ 68 feet, becomes green-gray
						70			@ 70 feet, darker and less Sandy
									@ 71.2-72 feet, pinkish-gray ASH Bed: N20W,12SW; irregular
	15.51	31.7	84.0						@ 72 feet, dark greenish-gray
									@ 73 feet, becomes olive-brown
									VAQUEROS-SESPE FORMATION
						75			Silty SANDSTONE: very fine to fine-grained, olive-brown, very dense
									@ 76 feet, Sandy SILTSTONE bed
									@ 77 feet, darker and more Sandy
									@ 79 feet, less Sandy
						80		BEDROCK	@ 80 feet, more Sandy
									@ 81 feet, Bedding: N5W,15SW
									@ 81.5-83 feet, medium green-gray with wavy laminations and cross bedding
									VAQUEROS-SESPE FORMATION
									Clayey SILTSTONE: brown to olive-brown, stiff
						85			@ 85.5-86 feet, Sheared CLAY: brown and pinkish-brown
									@ 86 feet, Rupture Surface: N10W,15SW; moderately polished, lineations N85W, moderately polished and somewhat irregular surface
									@ 86.3-87 feet, Sandy SILTSTONE
									VAQUEROS-SESPE FORMATION

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Figure No.: B-4.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation:	Boring Number
Bucket Auger	30 inches	1517 feet	BC-4

Date Drilled: 6/27/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
					5		LANDSLIDE MATERIAL	Silty SANDSTONE: fine-grained, light gray and light gray-brown, closely fractured, very disturbed and generally blocky to 14 feet; some caving 0-14 feet @ 4 feet, parallel fracturing: N20W,74NE @ 6 feet, becomes medium greenish-gray, very fractured
					10			@ 11 feet, Fractures: N40W,70NE @ 13-14 feet, broken cemented bed dips NE 30°
					15			LANDSLIDE MATERIAL
17.23	31.0	88.7			20			Sandy SILTSTONE: greenish-gray, closely fractured and disturbed @ 16-17 feet, dark greenish-gray Clayey SILTSTONE bed, broken @ 17-18 feet, broken displaced 3 inch pink ash bed @ 18 feet, becomes dark greenish-gray, still very disturbed @ 21.6 feet, becomes very micaceous and dark gray @ 23 feet, Shear: N40W,80SW; bedrock below shear stiffer and less mica and some 1/2 open fractures: N50E,85SE @ 24 feet, medium to dark greenish-gray, still disturbed
					25			@ 27 feet, becomes brown @ 28-29 feet, block of green-gray ash on NE side of boring

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Figure No: B-5.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1517 feet	BC-4

Date Drilled: 6/27/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
							LANDSLIDE	@29-33 feet, Shear Zone N-S,55W
								@ 33-34 feet, broken blocks of SANDSTONE and SILTSTONE
								@ 34.5 feet, becomes brown Clayey SILTSTONE, sheared
					35			@ 34.8-35 feet, brown CLAY gouge
								@ 35 feet, Slide Plane: N30W,20SW; even, moderately polished surface with well developed striations dip S80W
								LANDSLIDE MATERIAL
								Clayey SILTSTONE: brown, very stiff, some minor shears
								VAQUEROS-SESPE FORMATION
	55.93	12.8	120.0		40			Sandy SILTSTONE: greenish-gray, very stiff, undisturbed
								@ 37-38 feet, fine-grained, olive-brown to dark green-gray Silty SANDSTONE
								@ 38 feet, becomes darker
								@ 39.6 feet, becomes less Sandy
								@ 41 feet, becomes olive-brown
					45		BEDROCK	@ 41.6-42.6 feet, somewhat Clayey with minor shears
	55.93	34.1	88.0					@ 41.6 feet, becomes more Sandy, olive-brown
								@ 44 feet, becomes more Sandy and micaceous
								@ 45.6 feet, becomes less Sandy
					50			@ 46-46.5 feet, Clayey, olive-brown
								@ 46.5-47.5 feet, pink to pinkish-gray ash bed: N40W,20SW; lower contact irregular with minor shearing
								@ 47.5 feet, becomes olive-brown to 48 feet, then dark green-gray and more Sandy
								@ 49.6 feet, becomes olive-brown
								VAQUEROS-SESPE FORMATION
					55			Silty SANDSTONE: fine-grained, dark green-gray
								@ 52.5 feet, becomes more Sandy with red-brown specks
								@ 53 feet, seepage from side wall (weeping) and becomes coarser
								@ 54 feet, irregular bed of very Silty SS with red-brown specks, lighter colored

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Figure No B-5.2

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1517 feet	BC-4

Drilled: 6/27/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE BU.	SAMPLE TUBE	Drive Energy Ft Kip/Ft	Field Moisture % Dry Weight	Dry Density Lb/Cu Ft.	Shear Resistance Kip/Sq Ft	Depth Feet	Soil/Rock Symbol	Soil/Rock Type	Description and Remarks
		58.94	17.0	112.1					

@ 54.5 feet, becomes olive-brown with red-brown specks, saturated
@ 57-58 feet, light gray cemented SS: N20W,20SW with cross bedding and red-brown spots
@ 58-59 feet, red-brown stained
@ 59 feet, becomes medium gray
@ 60 feet, becomes finer

VAQUEROS-SESPE FORMATION

65

BEDROCK

Sandy SILTSTONE: medium green-gray, very stiff
@ 61.5-62 feet, Clayey
@ 62 feet, more Sandy
@ 63 feet, pinkish-brown and greenish-gray and laminated
@ 64-66.5 feet, olive-brown to brown SILTSTONE
@ 66.5-66.7 fcet, CLAY Bed: N27W,22SW
Shear at Base: N12W,21SW
@ 66.7 feet, becomes olive-brown Sandy SILTSTONE
@ 67 feet, becomes less Sandy and red-brown
@ 69-70 feet, red-brown specks

VAQUEROS-SESPE FORMATION

70

75

Silty SANDSTONE: fine-grained, green-gray, very dense
@ 72-73 feet, Sandy SILTSTONE: green-gray and red-brown
@ 73-76 feet, zones of green-gray and red-brown
@ 76-69 feet, red-brown Sandy SILTSTONE bed
@ 79 feet, more Sandy
@ 81.5 feet, becomes fine- to medium-grained and red-brown to yellow-brown and mica, saturated, weeping

VAQUEROS-SESPE FORMATION

80

Bottom of Boring at 90 feet.
Notes:
1) Seepage at 53 feet and below 81 feet.
2) Moderate caving at 0-14 feet.
3) Boring backfilled.

85

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Project No.	Figure No.:
4816-04	B-5.3

LOG OF BORING

Rig.	Boring Diameter	Boring Elevation.	Boring Number
Bucket Auger	30 inches	1293.5 feet	BC-5

Date Drilled: 6/28/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
					0		CL	Silty CLAY: dark gray-brown, moist, firm @ 4 feet, lighter colored @ 6-7 feet, graduates to weathered SILTSTONE COLLUVIUM
					5			
17.23	12.4	109.6			10		BEDROCK	Clayey SILTSTONE: light greenish-gray and pinkish-gray zones, very closely fractured and blocky to 10 feet, some dark red stringers along bedding @ 8.5 feet, Shear: N-S,16W; small sandstone blocks above; becomes dark olive-brown below @ 10 feet, becomes less fractured and blocky @ 11 feet, grades to Sandy SILTSTONE VAQUEROS-SESPE FORMATION
					15			Sandy SILTSTONE: dark green-gray to olive-brown with red oxide specks, very stiff and finely micaceous @ 16 feet, 6 inch pink-gray Siltstone Bed:N10W,17SW @ 16.5 feet, 6 inch dark green-gray, fine Silty SANDSTONE Bed @ 17 feet, becomes red-brown Sandy SILTSTONE @ 18-19 feet, red-brown SILTSTONE Bed @ 19 feet, becomes dark green-gray and deep red-brown @ 20 feet, grades to Silty SANDSTONE VAQUEROS-SESPE FORMATION
40.19	14.9	117.9			20			
					25			Silty SANDSTONE: fine-grained, red-brown to reddish-gray, micaceous @ 22-23 feet, deep red-brown, micaceous SILTSTONE Bed @ 23 feet, becomes fine- to medium-grained, mostly red-gray, salt and pepper appearance @ 26 feet, becomes light yellowish-gray and coarser, appears arkosic @ 27 feet, some red-brown SILTSTONE rip-ups along bedding @ 28-28.5 feet, light orange-gray, medium to coarse-grained

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Project No	Figure No.
4816-04	B-6.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1293.5 feet	BC-5
Date Drilled: 6/28/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE | TUBE | DRIVE ENERGY FT KIPS/FT. | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

BEDROCK

@ 28.5-33 feet, cemented SANDSTONE: light green-gray and pink-gray zones
@ 33 feet, becomes fine- to medium-grained and yellow-brown and slightly cemented
@ 34 feet, becomes light red-brown
@ 35 feet, pinkish-gray with filled worm? tubes

35

@ 37.5 feet, thin cemented bed, below is medium pinkish-brown
@ 38-39 feet, some cemented nodules in pinkish-brown, fine- to medium-grained SANDSTONE

40

@ 41-42 feet, light greenish-gray with load struct. and worm? tubes
@ 42 feet, becomes pinkish-brown with some cement nodules
@ 43-44 feet, deep red-brown, very micaceous SILTSTONE bed with some very thin laminations
@ 44 feet, Bedding: N10W,13SW
@ 44 feet, fine- to medium-grained, dark red with medium gray, wavy laminations and slight seepage
@ 46 feet, some SILTSTONE rip-ups along bedding, some cross bedding, seepage more intense
@ 47.5 feet, 6 inch brownish-red Clayey SILTSTONE Bed
@ 48 feet, 4 inch greenish-gray Silty SS Bed, heavier seepage.

45

VAQUEROS-SESPE FORMATION

50

Sandy SILTSTONE: deep reddish-brown with some green mottling
@ 49 feet, becomes olive-brown, still mottled
@ 50 feet, more Sandy
@ 51 feet, darker and micaceous
@ 52.5 feet, thin SILTSTONE Bed: N20W,15SW; medium greenish-gray
@ 53 feet, red-brown to reddish-gray with green mottling, micaceous
@ 55 feet, grades to SANDSTONE

55

VAQUEROS-SESPE FORMATION

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Figure No. B-6.2

LOG OF BORING

Rig.	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1293.5 feet	BC-5
Drilled. 6/28/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE: BULK | TUBE | DRIVE ENERGY FT. KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT. | SHEAR RESISTANCE KIPS/SQ FT | DEPTH, FEET | SOILROCK SYMBOL | SOILROCK TYPE | Description and Remarks

65

Silty SANDSTONE: deep reddish-brown with green mottling, micaceous
@ 55.5 feet, becomes coarser and red-brown
@ 58 feet, green-gray SS bed
@ 58.2 feet, olive SILTSTONE, Sandy
@ 59-60 feet, olive-brown and cemented nodules
Sandy SILTSTONE: light greenish-gray
@ 61 feet, thin, light pinkish-gray SILTSTONE Bed
@ 65-66 feet, pinkish-brown SILTSTONE with red-brown laminations
@ 66-66.5 feet, dark red-brown Sandy SILTSTONE
@ 66.5 feet, becomes olive-brown and red-brown
@ 68-69 feet, some cemented nodules

70

@ 71-72.5 feet, fine Silty SANDSTONE: medium greenish-gray and brownish-red zones

VAQUEROS-SESPE FORMATION

75

BEDROCK

Clayey SILTSTONE: olive-brown to red-brown, with some light colored cemented nodules
@ 74 feet, thin shear dips SW approximately 12°
@ 75.5 feet, less Clayey and olive-brown

VAQUEROS-SESPE FORMATION

80

Sandy SILTSTONE: olive-brown, very stiff
@ 77 feet, becomes more Sandy and greenish-gray
@ 78 feet, becomes mottled
@ 78.5-80.5 feet, cemented fine Silty SS bed
@ 80.5 feet, becomes olive-brown to green-gray Sandy SILTSTONE
@ 82-85 feet, very fine-grained Silty SS bed, medium greenish-gray
@ 85 feet, dark red-brown micaceous Sandy SILTSTONE
@ 87.5-88.5 feet, green mottling

VAQUEROS-SESPE FORMATION

85

Silty SANDSTONE: fine- to medium-grained, olive to red-brown, very dense

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Figure No. B-6.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1293.5 feet	BC-5
Drilled 6/28/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						95			@ 92-93.5 feet, very fine and some light cemented nodules @ 93 feet, becomes coarser @ 96-97 feet, olive-brown SILTSTONE VAQUEROS-SESPE FORMATION
						100			Sandy SILTSTONE: olive-brown, slightly cemented @ 97-101.5 feet, light gray cemented nodules @ 101.5-102.5 feet, medium red-brown VAQUEROS-SESPE FORMATION
						105		BEDROCK	Silty SANDSTONE: very fine-grained, greenish-gray to olive-brown @ 106 feet, lighter colored @ 107.5 feet, 6 inch Sandy SILTSTONE Bed: greenish-gray to olive-brown @ 108-110 feet, very fine Silty SANDSTONE @ 110 feet, thin, light gray cemented Bed: N20W,17SW VAQUEROS-SESPE FORMATION
						110			Sandy SILTSTONE: light to medium greenish-gray to olive-brown VAQUEROS-SESPE FORMATION
						115			SILTSTONE: light to medium greenish-gray to olive-brown; possibly some volcanic ash @ 118-120 feet, olive-brown @ 120 feet, becomes saturated Silty SANDSTONE

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Figure No B-6.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1293.5 feet	BC-5

Drilled 6/28/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE									Description and Remarks
BLOWS	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOILROCK SYMBOL	SOILROCK TYPE	
						125		BEDROCK	Silty SANDSTONE: fine- to medium-grained, medium greenish-gray @ 122 feet, becomes lighter colored @ 124 feet, becomes coarser @ 125-126 feet, medium to coarse pebbly SANDSTONE @ 126 feet, very fine Silty SANDSTONE: medium greenish-gray to olive @ 128.5 feet, standing water @ 128-145 feet, mostly fine- to medium-grained, greenish-gray, Silty SANDSTONE: with some olive-brown Sandy SILTSTONE beds and cemented beds
						130			
						135			
						140			
						145			VAQUEROS-SESPE FORMATION Bottom of Boring at 145 feet. Notes: 1) Standing water at 128 feet. 2) Seepage at 44 and 48 feet. 3) No caving. 4) Boring down-hole logged and backfilled.

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Project No.: 4816-04

Figure No.: B-6.5

LOG OF BORING

Bucket Auger	Boring Diameter 30 inches	Boring Elevation 1409 feet	Boring Number BC-6
Date Drilled 6/30/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU. FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
							CL	Silty CLAY: dark brown, damp stiff COLLUVIUM
								Silty SANDSTONE: fine-grained, light greenish-gray, closely fractured
					5			Sandy SILTSTONE: medium greenish-gray, closely fractured with some open structure @ 8 feet, 3/4 inch open fractures: E-W, 80S and N-S, 80E
					10			Silty SANDSTONE: very fine-grained, light to medium greenish-gray, very closely fractured and blocky, disturbed
								Sandy SILTSTONE: medium greenish-gray, very disturbed, blocky @ 14 feet, Shear: N10E,55NW and Fracture: N-S,75W @ 15-17 feet, some blocks of Sandstone and minor to moderate caving @ 17 feet, firmer but still closely fractured and becomes olive-brown and less Sandy
					15			
					20			
	17.23	12.2	118.7					@ 21 feet, becomes more Sandy and darker @ 23-24 feet, Sandstone block on east wall
					25			@ 25 feet, Shear: N-S,85W, very closely fractured @ 28 feet, Shear: N50W,60NE; fine Silty SS below shear, light to medium greenish-gray @ 29 feet, becomes medium greenish-gray Sandy SILTSTONE again

LANDSLIDE MATERIAL

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Project No.. 4816-04

Figure No : B-7.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1409 feet	BC-6

Date Drilled: 6/30/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
								Silty SANDSTONE: very fine-grained, light to medium greenish-gray, closely fractured
								@ 33 feet, red oxide-stained clasts
					35			Sandy SILTSTONE: medium greenish-gray, very closely fractured, blocky
68.83	12.7	116.1			40			
								@ 42 feet, less Sandy
								@ 44 feet, more Sandy and dark greenish-gray
					45			@ 45-46 feet, light brown SILTSTONE and ash bed on NE side of boring
								@ 46 feet, less Sandy
								@ 47 feet, Shear: N40E,75SE; very fine Silty SANDSTONE below
								Silty SANDSTONE: very fine-grained, medium gray to olive-brown, dry, closely fractured
					50			@ 50 feet, very slight seepage from hairline fracture
								Sandy SILTSTONE: medium greenish-gray, closely fractured
								@ 52 feet, dark olive-brown, micaceous
								@ 53.5 feet, slight seepage from fracture:N40W,70SW
								@ 56-57 feet, greenish-gray, very fine-grained Silty SS bed
					55			@ 57 feet, Sandy SILTSTONE: dark olive-brown
								Clayey SILTSTONE: medium brown
								@ 58.5 feet, Sheared CLAY: yellow-brown to medium greenish-brown
								@ 59 feet, Rupture Surface, Cross Hole:N10E,12NW, faint striations west: pockets of sheared clay gouge to 59.5 feet

LANDSLIDE MATERIAL

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Project No.: 4816-04

Figure No.: B-7.2

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1409 feet	BC-6

Drilled: 6/30/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE BL.	SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
									Sandy SILTSTONE: medium greenish-gray to olive-brown
									@ 60.5 feet, becomes firmer and dark olive-brown and less fractured
						65		LANDSLIDE MATL	SILTSTONE: medium to dark olive-brown
									@ 62 feet, becomes finely micaceous; Polished Shear: N35E,35NW, faint to moderate striations N80W; Sandy at 62.5 feet
									Clayey SILTSTONE: dark olive-brown, random shearing
									@ 64.5 feet, 2-6 inch bentonite layer: N35E,45NW; offset by irregular shear zone: N-S to N15E, 50-60W
						70			@ 66 feet, darker and more Clayey
									@ 66.7 feet, Slide Plane: N10W,13SW; well developed striations and dark lineations: S55W; 12 inch intense shearing above SP and light pinkish-gray bentonite along SP
									LANDSLIDE MATERIAL
						75		BEDROCK	Silty SANDSTONE: very fine-grained, dark green to olive-gray, cemented
									Sandy SILTSTONE: dark olive-brown, stiff
									@ 71.5 feet, 6 inch dark olive-brown SILTSTONE Bed: N10W,12SW
									@ 72.1 feet, becomes Sandy SILTSTONE again, dark olive-brown, cemented
									@ 74 feet, medium olive-brown
	74.45	20.8	101.4			80			@ 76.5 feet, less Sandy
									SILTSTONE: medium olive-brown
									@ 81 feet, becomes dark olive-brown
									Sandy SILTSTONE: medium to dark olive-brown
						85			@ 85-87 feet, cemented
									@ 87 feet, lighter colored
									@ 88.5 feet, darker and more Sandy

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Project No.: 4816-04 | Figure No.: B-7.3

LOG OF BORING

Rig.	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1409 feet	BC-6
Date Drilled: 6/30/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling with the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
								SILTSTONE: medium brown @ 91 feet, Rupture Surface: N40E,29NW @ 91-92.5 feet, wedge of broken Sandy SILTSTONE and cemented bed (6-18 inches) @ 92.5 feet, Shear: N30W,42NE
					95			Sandy SILTSTONE: medium to dark olive-brown, very Sandy @ 93-94.5 feet, cemented @ 95 feet, becomes more Sandy and dark olive-brown to greenish-gray @ 97 feet, medium olive-brown, less Sandy @ 99 feet, 1 inch CLAY Bed: N-S,14W, medium brown, possibly remolded @ 99.1 feet, more Sandy and darker
					100			Silty SANDSTONE: very fine-grained dark olive-brown @ 102 feet, seepage from sidewall, little coarser @ 103-105.5 feet, finer and l ight gray cemented nodules
					105		BEDROCK	SILTSTONE: medium brown
					110			Sandy SILTSTONE: greenish-gray VAQUEROS-SESPE FORMATION Bottom of Boring at 120 feet. Notes: 1) Seepages at 50, 53.5, and 102 feet. 2) Some caving at 64-66 feet. 3) Boring down-hole logged and backfilled.
					115			

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Figure No: B-7.4

LOG OF BORING

Drilling: Bucket Auger	Boring Diameter: 30 inches	Boring Elevation: 1232 feet	Boring Number: BC-7
Date Drilled: 6/30/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
							CL	Silty CLAY: dark grayish-brown, damp to moist, stiff @ 3 feet, lighter colored @ 4-5 feet, Clayey SAND: fine- to coarse-grained, brown COLLUVIUM
					5		SC SM	Silty SAND: fine- to coarse-grained, yellowish-brown with light gray mottling, loose to medium dense, dry to damp @ 7-9 feet, Shear Zone: N70E,65SE; some rock fragments COLLUVIUM
	11.48	6.0	109.9		10			Silty SANDSTONE: fine- to medium-grained, yellowish-brown with some light gray mottling @ 12 feet, predominantly light yellowish-gray @ 12 feet, medium to coarse SANDSTONE Bed: N75E,30NW @ 13 feet, some inclusions of light brown Silty SAND and becomes fine-grained and reddish-brown oxidized @ 18 feet, firmer @ 19 feet, more yellow
					15			
					20		LANDSLIDE MATERIAL	@ 20-21 feet, orange-brown with some cemented Sandstone fragments @ 21 feet, Shear Zone: N20W,45NE
								Sandy SILTSTONE: medium to dark olive-brown, micaceous, medium gray Sandy stringers dip NW; stiff @ 24 feet, becomes firmer
	11.48	17.7	106.2		25			Clayey SILTSTONE: olive-brown with gray mottling, soft, disturbed @ 26-27.3 feet, soft, sheared ash bed, light greenish-gray with orange mottling, dips 35°SE @ 27.3-28 feet, becomes dark gray Clayey SILTSTONE, soft, disturbed @ 28.5 feet, fine Silty SANDSTONE inclusions @ 29 feet, broken angular clasts and cement nodules

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Figure No.: 8.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1232 feet	BC-7
Date Drilled: 6/30/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
								@ 30.5 feet, Shear dips 45°NE with 6 inch block medium gray SAND SILTSTONE on NE side and red-brown, sheared Clay gouge on SW side with small fragments of pink ash
								@ 31-32 feet, irregular Rupture Surface: N27W,30NE, well developed striations S80E
					35		LANDSLIDE MATERIAL	Sandy SILTSTONE: medium greenish-gray to olive-brown, stiff
								@ 35 feet, darker
								SILTSTONE: olive-brown
								Clayey SILTSTONE: medium brown
								@ 39 feet, polished shears
								@ 39.5 feet, Shear: N60W,30SW
					40			@ 40 feet, less sheared, less clayey
☐	30.11	17.3	112.4					@ 40.5 feet, olive-brown, Sandy SILTSTONE
								@ 41 feet, finely micaceous and red-brown ox.
								Silty SANDSTONE: very fine to fine, red-brown with medium greenish-gray patches
								@ 43.5 feet, 6 inch red-brown Clayey SILTSTONE BED: N10W,15SW
					45			@ 43.5-44 feet, some thin Clayey laminations in Sandy SILTSTONE bed
								@ 44.5-45 feet, olive-brown Sandy SILTSTONE with red-oxidized specks
								@ 45 feet, light gray Clayey SILTSTONE
								@ 45.5 feet, light greenish-gray Silty SANDSTONE
								Sandy SILTSTONE: red-brown
					50			@ 48 feet, becomes more Sandy with green patches
								Silty SANDSTONE: fine-grained, mdedium greenish-gray, salt and pepper appearance
								@ 52.9 feet, 1-3 inch Clayey Gouge Zone: N50W,12SW dark red-brown, very plastic
								@ 53 feet, Rupture Surface: N50W,12SW; no striations, dull, even surface LANDSLIDE MATL.
					55		BEDROCK	@ 53-54 feet, Ash Bed: light greenish-gray, soft, punky, some internal shearing
								@ 54 feet, Contact: N50W,12SW; becomes fine-grained and gray to light yellowish-green
								@ 56.5-57.5 feet, cemented, seepage at 57 feet
								@ 58-59 feet, very fine-grained and dark greenish-gray

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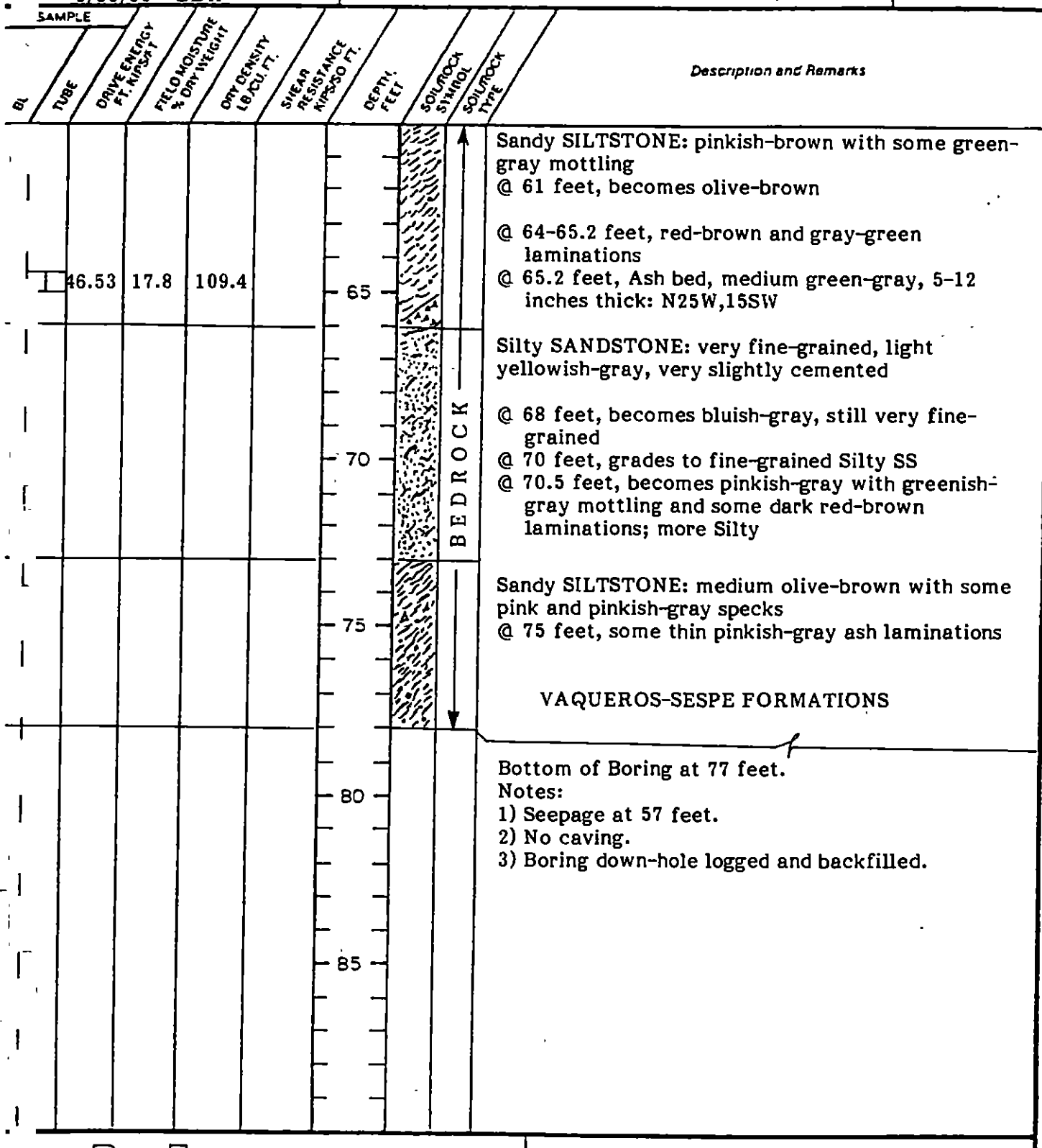
Project No: 4816-04

Figure No.: B-8.2

LOG OF BORING

Rig:	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1232 feet	BC-7
Drilled: 6/30/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		



Sandy SILTSTONE: pinkish-brown with some green-gray mottling
@ 61 feet, becomes olive-brown

@ 64-65.2 feet, red-brown and gray-green laminations
@ 65.2 feet, Ash bed, medium green-gray, 5-12 inches thick: N25W,15SW

Silty SANDSTONE: very fine-grained, light yellowish-gray, very slightly cemented

@ 68 feet, becomes bluish-gray, still very fine-grained
@ 70 feet, grades to fine-grained Silty SS
@ 70.5 feet, becomes pinkish-gray with greenish-gray mottling and some dark red-brown laminations; more Silty

Sandy SILTSTONE: medium olive-brown with some pink and pinkish-gray specks
@ 75 feet, some thin pinkish-gray ash laminations

VAQUEROS-SESPE FORMATIONS

Bottom of Boring at 77 feet.
Notes:
1) Seepage at 57 feet.
2) No caving.
3) Boring down-hole logged and backfilled.

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County of Orange, California

Project No.:	Figure No.:
4816-04	B-8.3

LOG OF BORING

Rig:	Boring Diameter:	Boring Elevation:	Boring Number
EZ Bore 120	24 inches	1451 feet	BC-8
Drilled: 7/5/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE BL	TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU.FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOILROCK SYMBOL	SOILROCK TYPE	Description and Remarks
									Silty CLAY: light gray-brown, dry, loose COLLUVIUM
									@ 3 feet, Clayey SILTSTONE: dark gray-green, thinly laminated, moderately hard and moderately well cemented; Bedding: N45W,31NW
									@ 3.2 feet, Bentonite: pinkish-gray, soft, moist,
						5			@ 5.2 feet, Joint, open, infilled with blocky SILTSTONE Attitude: N32E,76SE
									@ 6 feet, SILTSTONE becomes olive-brown to dark green; increasingly fractured at 9 feet
									@ 9.7 feet, Fracture Attitudes: N53W,57NW,N26E, 71SE
		10.3	118.7			10		LANDSLIDE MATERIAL	
									@ 13 feet, Silty SANDSTONE: fine-grained, dark reddish-brown, moderately hard, slightly cemented, micaceous
									@ 14.5 feet (1/2 foot thick) thinly laminated, interbedded dark green Sandy SILTSTONE
									@ 15 feet, SANDSTONE becoems pinkish-brown, highly micaceous, poorly cemented
						15			@ 15.9-17.4 feet, becomes uncemented and loose
									@ 18 feet, becomes very light greenish-gray, increasingly cemented
									@ 18.5 feet, Bedding: N70W,13NE
		23.6	96			20			@ 20 feet, SILTSTONE: dark grayish-green, hard and well cemented
									@ 20.4 feet, becomes dark reddish-brown, broken
									@ 20.6 feet, Silty CLAY: olive-brown, very moist, soft to medium stiff, polished, somewhat sheared but unstriated, irregularly bedded
						25		LANDSLIDE?	@ 21.4 feet, Rupture Surface: sheared, polished, soft CLAY, 1/2 inch thick: N50W,32SW; striations, N31E (S31W)
									Sandy SILTSTONE: olive-brown, moderately hard, well cemented, non-micaceous, N10W,13NE
									@ 25 feet, Silty SANDSTONE: fine-grained, dark reddish-brown, cemented, hard, micaceous

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Project No. 4816-04

Figure No. B-9.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
EZ-Bore 120	24 inches	1451 feet	BC-8
Drilled 7/5/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BU...	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						35		LANDSLIDE?	@ 31.8 feet, seepage @ 34.3 feet, Sandy SILTSTONE: dark reddish-brown to grayish-green, moderately hard, micaceous, cemented in part @ 34.8 feet, becomes olive-brown, less cemented @ 35.6 feet, standing ground water @ 38 feet, heavy ground water encountered
						40			@ 39 feet, Silty SANDSTONE: fine-grained, yellow brown, poorly cemented with somewhat weathered, very moist to saturated, possible caving in boring LANDSLIDE? @ 43 feet, becomes somewhat cemented @ 44 feet, becomes well cemented, hard @ 45 feet, grades to Sandy SILTSTONE: dark reddish-brown to dark grayish-green, soft to moderately hard, appears weathered and micaceous
						45		BEDROCK	
	81.74	13.2	119.4			50			Sandy SILTSTONE: olive-brown, moderately hard, somewhat cemented @ 48 feet, becomes very hard
						55			@ 55 feet, becomes dark grayish-green, brittle, less cemented, hard where intact, highly micaceous @ 57 feet, SILTSTONE: olive-brown, very hard, cemented

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Figure No : B-9.2

LOG OF BORING

Ill Rig:	Boring Diameter	Boring Elevation	Boring Number
EZ Bore 120	24 inches	1451 feet	BC-8
le Drilled: 7/5/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE: B-JLK | TUBE | DRIVE ENERGY FT KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

18.6

65

70

75

80

85

BEDROCK

@ 64 feet, becomes grayish-green, with minor amounts of pinkish-gray, moist ASH

@ 66 feet, greenish-gray to grayish-green, very hard

Silty SANDSTONE: fine-grained, light greenish-gray, hard, highly micaceous

Sandy SILTSTONE: dark grayish-green, hard, well cemented, dark reddish brown CLAY inclusions present in matrix (<5%)
@ 74 feet, inclusions increasing to 8-10%

@ 76 feet, becomes very hard, interbedded alternating SILTSTONE and SANDSTONE

Silty SANDSTONE: fine-grained, light greenish-gray very hard, well cemented

Sandy SILTSTONE: pinkish-brown, thinly laminated, very hard, intermixed with dark grayish-green SILTSTONE
@ 81.5 feet, becomes dark grayish-green
@ 82.5 feet, becomes light yellow-brown, very hard moderately well cemented bed, non-micaceous
@ 85 feet, thinly layered reddish fine-grained SAND lenses present

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Project No.: 4816-04

Figure No.: B-9.3

LOG OF BORING

Rig.	Boring Diameter.	Boring Elevation.	Boring Number
EZ Bore 120	24 inches	1451 feet	BC-8
Date Drilled. 7/5/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
								@ 91 feet, heavy caliche-banding present; SILTSTONE still hard but somewhat broken
								@ 92 feet, SILTSTONE (siliceous), very hard but broken and fractured (according to driller)
								@ 93 feet, Silty CLAY: dark grayish-green, very moist, medium stiff to stiff, (2-4 inches thick) Est. by spoil pile observ. appears somewhat sheared
☐	55.24	20.0	104.1		95			
								@ 94 feet, SILTSTONE: olive-brown to yellow-brown, hard, interlayered with moist bentonitic ASH
								@ 96 feet, Silty SANDSTONE: fine-grained, reddish, uncemented to slightly cemented, moderately hard, intermixed with moist bentonitic ASH
					100		BEDROCK	@ 98 feet, Sandy SILTSTONE: dark grayish-green, poorly to moderately well cemented, moderately hard, micaceous
								@ 100 feet, becomes SILTSTONE: olive-brown, moderately well cemented, very hard
								@ 105 feet, becomes micaceous, hard
					105			VAQUEROS/SESPE FORMATION
								Bottom of Boring at 105 feet.
								Notes:
								1) Heavy ground water at 38 feet.
								2) Ca ving at 38 feet.
								3) Boring downhole logged to 32 feet, then backfilled.
					110			
					115			

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Project No.: 4816-04

Figure No.: B-9.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
EZ-Bore 120	24 inches	1384 feet	BC-9
Drilled 7/6/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE BL.	SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT.	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT.	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						0		ML	Clayey SILT: light gray-green, poorly cemented, possibly weathered bedrock COLLUVIUM
						5		CL	@ 5.8 feet, Silty CLAY: dark grayish-green to olive-brown, very moist, soft to medium stiff; fragments of broken hard Siltstone intermixed @ 6 feet, becomes stiff @ 7.8 feet, becomes very moist to saturated, softer, highly micaceous @ 9 feet, becomes dark blue-gray
						10		LANDSLIDE	@ 10.2 feet, Clayey SILTSTONE: olive-brown, highly weathered, but stiff @ 11.1 feet, becomes less weathered, harder @ 12 feet, becomes dark gray-green, well cemented, poorly bedded @ 13.2 feet, becomes olive-brown, more pure SILTSTONE @ 13.5 feet, Bedding: N75E,36NW @ 15.6 feet, becomes highly weathered, almost soil form, pockets of soft wet areas within remaining stiffer mass; irregularly bedded, nearly cahotic @ 17.2 feet, light seepage @ 20.3 feet, Bedding: N25E,31NW @ 20.5 feet, becomes dark grayish-green, well cemented, hard @ 22 feet, becomes olive-brown @ 22.5 feet, Bedding: N75W,27NE @ 23.6 feet, becomes highly weathered, very moist, medium stiff to stiff @ 24.6 feet, Bedding: N65W,44NE @ 25.3-31.8 feet, Shear Zone with intersecting fractures, generally restricted to east side of boring @ 26 feet, Seepage @ 27 feet, open fracture or caved area (massive) intersecting bedding in fracture N17E,31NW, N29E,19NW, caved/fracture zone = 3' wide, x 4.5' long by 3' deep, heavy seepage present; fractured infilled with melange of (continued)
		<5.74	20.0	104.1		15			
						20			
						25			

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Figure No.: B-10.1

LOG OF BORING

Rig	Boring Diameter:	Boring Elevation	Boring Number
EZ-Bore 120	24 inches	1384 feet	BC-9

Drilled: 7/6/95 AK

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU. FT.	SHEAR RESISTANCE KIPS/SQ FT.	DEPTH FEET	SOILROCK SYMBOL	SOILROCK TYPE	Description and Remarks
								SANDSTONE, SILTSTONE, CLAY, highly chaotic vertical joint or fault = N87W, 76NE
					35			
					40			
<4.30	23.9	98.3						
					45			LANDSLIDE
					50			
					55			
								@ 58 feet, Sandy SILTSTONE: olive-brown, moderately well cemented, moderately hard, non-micaceous

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County of Orange, California

Project No.: 4816-04

Figure No.: B-10.2

LOG OF BORING

Drill Rig:	Boring Diameter:	Boring Elevation:	Boring Number
EZ-Bore 120	24 inches	1384 feet	BC-9
Date Drilled: 7/6/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU. FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
	24.82	9	23.7	101.8		65			@ 61 feet, slight seepage present @ 62.5 feet, less cementation, crumbly @ 63 feet, Bentonitic CLAY Zone: 6 inches thick est., very moist, pinkish-gray, intermixed with polished faintly striated SILTSTONE @ 63.5 feet, Sheared Silty CLAY intermixed with broken Siltstone fragment, polished, very moist, dark grayish-green, abundant bentonitic ASH, Shear Attitude: N43E,31NW @ 65 feet, Sandy SILTSTONE: dark greenish-gray, hard, well cemented but broken and fractured @ 66.5 feet (1" est), thick polished CLAY Seam, interbedded with Siltstone (cemented) matrix @ 68 feet, 2-3 inch thick hard/stiff bentonitic layer, moist
						70			@ 69 feet, Silty SANDSTONE: fine-grained, light grayish-green, poorly cemented, damp, moderately hard, highly micaceous @ 70 feet, becomes well cemented, hard @ 71 feet, becomes dark grayish-green @ 73 feet, olive-brown, Silty CLAY layer present, very moist, soft to medium stiff, unpolished @ 74 feet, Clayey SILTSTONE: dark grayish-green, well cemented, hard, polished on fresh surfaces @ 75 feet, Clay seam 1/2 inch thick, unpolished, unstriated @ 76.4 feet, Bentonitic Clay 3 inches thick, very moist, soft, sheared, N31W,21NE, brittle, polished
						75		LANDSLIDE	LANDSLIDE DEBRIS
	77.55	-	-			80			@ 77 feet, Sandy SILTSTONE: olive-brown, moderately hard, cemented, hard, highly micaceous @ 81 feet, becomes pinkish-brown, fine- to medium-grained @ 86 feet, Clayey SILTSTONE: olive-brown, moderately well cemented, hard, micaceous @ 87 feet, less hard, non-micaceous
						85		BEDROCK	

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Project No. 4816-04 | Figure No. B-10.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
EZ-Bore 120	24 inches	1384 feet	BC-9
Drilled 7/6/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE | TUBE | DRIVE ENERGY FT KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT. | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

95
100
105
110
115

BEDROCK

@ 94 feet, Silty SANDSTONE: dark gray-brown, fine-grained, well cemented, very hard, highly micaceous
@ 95.5 feet, becomes pinkish-brown
@ 96 feet, becomes dark greenish-gray with dark blue-gray, cemented, very hard
@ 97 feet, Clayey SILTSTONE: olive-brown to yellow-brown, moderately well cemented, moderately hard, non-micaceous

@ 106 feet, becomes very hard

@ 107 feet, Silty SANDSTONE: fine-grained, dark grayish-green, hard, slightly cemented, non-micaceous
@ 109 feet, Clayey SILTSTONE: olive-brown, moderately hard, moderately well cemented, micaceous
@ 112 feet, Siliceous Siltstone Bed (possible marker with BC-8) 6" to 1' thick, olive-brown, broken
@ 113 feet, Sandy SILTSTONE: olive-brown, hard, moderately well cemented
@ 117 feet, Clayey SILTSTONE: dark grayish-green to light pinkish-gray, well cemented, hard, thinly laminated

VAQUEROS/SESPE FORMATION

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Project No: 4816-04

Figure No.: B-10.4

LOG OF BORING

Rig. EZ-Bore 120	Boring Diameter 24 inches	Boring Elevation 1384 feet	Boring Number BC-9
Drilled. 7/6/95 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BL	SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ. FT.	DEPTH FEET	SOILROCK SYMBOL	SOILROCK TYPE	Description and Remarks
						125		BEDROCK	Bottom of Boring at 125 feet.
						130			Notes:
						135			1) Boring drilled to 65 feet on 7/6/95; on 7/7/95 it had caved to 31".
						140			2) Seepage at
						145			3) Caving at
									4) Boring left open on 7/7/95; on 7/10/95 boring depth was 28'. Hole left open and covered.
									5) Boring backfill on 7/11/95.

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Project No 4816-04

Figure No.: B-10.5

LOG OF BORING

Rig	Boring Diameter:	Boring Elevation:	Boring Number
Bucket Auger	30 inches	1072 feet	BC-10

Date Drilled: 7/11/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
							CL	Sandy CLAY: gray-brown, moist, stiff @ 2 feet, lighter colored, more Sandy OLDER ALLUVIUM
					5		ML	Clayey Sandy SILT: brown to yellowish-brown, moist, stiff, some red-brown and yellow mottling @ 4.5 feet, scattered Siltstone fragments @ 9 feet, more Clayey, more moist, some thin SAND laminations
					10			@ 12 feet, becomes grayish-brown and soft with 1/4 inch lenses of reddish Silty CLAY @ 14 feet, becomes very moist to saturated @ 15 feet, stiffer
					15			@ 18 feet, becomes light yellowish- to greenish-brown, very moist and soft OLDER ALLUVIUM
<5.74	24.4	98.3			20		SM	Clayey Silty SAND: fine- to medium-grained, yellowish-brown, saturated to wet, seepage OLDER ALLUVIUM
					25		CL	Silty CLAY: dark brown, very moist, stiff, some Siltstone fragments @ 25 feet, scattered inclusions of dark reddish-brown Silty SAND @ 27 feet, seepage @ 27.5 feet, stiffer @ 28.5 feet, becomes soft, loose OLDER ALLUVIUM

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Project No.: 4816-04

Figure No.: B-11.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1072 feet	BC-10

Date Drilled: 7/11/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE &	TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
							CL		Silty SANDSTONE: fine- to medium-grained, light greenish-gray, very weathered. slightly Clayey, very moist, medium dense
									@ 32 feet, becomes light gray
						35			@ 35 feet, becomes light yellow-brown with lenses of CLAY and less moisture
									@ 35.5 feet, stiffer, altelrnate beds of yellow-brown and greenish-gray CLAY
									Clayey SILTSTONE: bluish- to greenish-gray, weathered, moist, medium stiff to stiff
									@ 37.5 feet, becomes darker
	17.21	19.2	110.8			40			@ 40 feet, heavy seepage
								LANDSLIDE MATERIAL	Silty SANDSTONE: fine-grained, dark greenish-gray, hard, moist, micaceous
						45			Sandy SILTSTONE: dark greenish-gray, micaceous, stiff
						50			
						55			Silty SANDSTONE: fine-grained, dark greenish-gray, micaceous

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County of Orange, California

Project No.: 4816-04

Figure No.: B-11.2

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1072 feet	BC-10
Drilled. 7/11/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
	24.82	21.6	104.9			65		LANDSLIDE MATERIAL	Sandy SILTSTONE: dark greenish-gray @ 61 feet, reddish-brown Clayey SILTSTONE Bed @ 64 feet, light greenish-gray Silty SANDSTONE Bed @ 68 feet, light greenish-brown SILTSTONE Bed, moist, very stiff @ 69 feet, medium olive brown with some cemented nodules, less Sandy @ 70 feet, dark greenish-gray with red oxide spots and more Sandy, very moist, and a greenish-gray CLAY Bed @ 72 feet, red-brown SILTSTONE Bed @ 73 feet, moderately thick greenish-gray, plastic CLAY @ 74 feet, becomes more Sandy with some red-brown SILTSTONE Beds
						75			Silty SANDSTONE: fine- to medium-grained, light to medium greenish-gray, arkosic, very dense @ 79 feet, finer and mostly light greenish-gray with slight pink tinge
						80			@ 82 feet, some color as at 79 but no pink @ 84 feet, slightly darker
						85			Bottom of Boring at 85 feet. Notes: 1) Seepage at 20, 27 and 40 feet. 2) Intense caving from 20-32 feet. 3) Down-hole logged to 20 feet.

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Project No.: 4816-04

Figure No.: B-11.3

LOG OF BORING

Rig.	Boring Diameter:	Boring Elevation	Boring Number
EZ Bore 90	24 inches	1083 feet	BC-11
Drilled: September 25, 1995 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE: BL, TUBE | DRIVE ENERGY FT KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | *Description and Remarks*

Siltstone: light grayish-brown, weathered, brittle, moderately well cemented, poorly bedded
@ 1 foot, becomes pinkish-gray
@ 3 feet, becomes light grayish-green to grayish-brown, increasingly brittle
@ 4.1 feet, Bedding: N49W,21NE

5

@ 5 feet, Silty SANDSTONE: very fine-grained, dark blue-gray, moderately hard, highly micaceous
@ 6 feet, SILTSTONE: dark grayish-green, moderately hard, micaceous, somewhat fractured
@ 8.7 feet, Fracture: N85E,76SE, well cemented and hard
@ 10.4-10.9 feet, Sheared SILTSTONE: moderately hard, polished, faint striations, strongly defined on fresh surfaces; base comprised of soft/loose, brittle moist SILTSTONE; Rupture Surface: N71W,27NE; Striations: N51E

10

@ 10.9 feet, SILTSTONE: dark grayish-green, well cemented, moderately hard, micaceous, somewhat broken
@ 12.6-13.0 feet, Siliceous SILTSTONE Bed: light reddish-brown to dark grayish-green, fracture and broken; Bedding: N21W,27NE

15

@ 15.1-16.4 feet, Fault: N41E,52NW, infilled with dry pinkish-gray ASH, loose intermixed with broken Siltstone fragments
@ 16.4 feet, Silty SANDSTONE: fine-grained, light gray, moderately well cemented, poorly bedded, massive, moist
@ 17.9 feet, becomes light grayish-green to light yellow-brown, dry, poorly cemented and somewhat weathered and crumbly

20

@ 23.9 feet, grades to dark grayish-green yellow banding; better cemented, poorly bedded

25

LANDSLIDE

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County of Orange, California

Project No. 4816-04

Figure No. B-12.1

LOG OF BORING

Drill Rig	Boring Diameter	Boring Elevation:	Boring Number
EZ Bore 90	24 inches	1083 feet	BC-11
Date Drilled: September 25, 1995 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE: BULK | TUBE | DRIVE ENERGY FT KIPS/FT. | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

35
40
45
50
55

LANDSLIDE

@ 30 feet, becomes well cemented, hard
@ 31.8 feet, light yellow-brown to very light yellow-gray
@ 34.5 feet, Bedding 1/8 inch SILTSTONE Seam: N41E,31NW
@ 38 feet, Sandy SILTSTONE: dark grayish-green, very well cemented, hard, highly micaceous, massive, poorly bedded
@ 39.5 feet, grades to dark reddish-brown to reddish-gray, increasingly micaceous, very hard

@ 41 feet, Silty SANDSTONE: fine-grained, dark grayish-green, well cemented, very hard, highly micaceous, poorly bedded

@ 42.6 feet, Sandy SILTSTONE: dark reddish-brown, very well cemented, hard, poorly bedded, somewhat micaceous

@ 51.5 feet, open intersecting fracture zone: 2-3 inches: Fracture: N70E,85SE,N45W,61SW
@ 51.8 feet, Bedding: N60W,32NE; faint polishing and possible striations along bedding ranging from N28E to N2W
@ 52.5 feet, Shear Zone: with broken sheared polished strongly defined, striated, moderately hard SILTSTONE
@ 55.1-55.3 feet, becomes light orange-brown to pinkish-brown; Rupture Surface: N49W,24SW; Striations S40W toS70W
@ 56-56.3 feet, becomes increasingly Clayey
@ 58.5-59.3 feet, Basal Rupture Surface: sheared CLAY Gouge: pinkish-brown to dark gray, very moist, soft to medium stiff, polished, internally sheared, striated, very plastic N45W,19 to 23SW; Striations S45W

LANDSLIDE DEBRIS

@ 59.3 feet, Silty SANDSTONE: very fine-grained, dark bluish-gray, well cemented, hard

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County of Orange, California

Project No.	Figure No.
4816-04	B-12.2

LOG OF BORING

Drill Rig:	Boring Diameter	Boring Elevation	Boring Number
EZ Bore 90	24 inches	1083 feet	BC-11
Date Drilled: September 25, 1995 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE: BULK | TUBE | DRIVE ENERGY FT. KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT. | SHEAR RESISTANCE KIPS/SQ FT. | DEPTH, FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

65

@ 62 feet, becomes medium gray, non-micaceous
@ 66.9 feet, Sandy SILTSTONE: dark reddish-brown, very well cemented, very hard, massive and poorly bedded, micaceous
@ 68.2-68.6 feet, Silty SANDSTONE: very fine-grained, light gray, well cemented, hard

70

@ 70.8 feet, light seepage present, south side
@ 71.9-72.6 feet, SILTSTONE: dark reddish-brown, very well cemented, very hard, poorly bedded and massive

@ 72.6 feet, Silty SANDSTONE: dark bluish-gray, very hard, well cemented, somewhat micaceous
@ 75.3 feet, becomes light grayish-green

75

BEDROCK

80

@ 82.6 feet, moderate seepage
@ 82.6-83.7 feet, Siliceous SILTSTONE Bed: N45E,19NW

85

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Project No 4816-04 | Figure No. B-12.3

LOG OF BORING

Drill Rig.	Boring Diameter	Boring Elevation	Boring Number
EZ Bore 90	24 inches	1083 feet	BC-11
Date Drilled: September 25, 1995 AK	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE: BULK | TUBE

DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
				95		BEDROCK	@ 92 feet, SILTSTONE: dark reddish-brown, well cemented, very hard, micaceous
				100			@ 102.5 feet, becomes Siliceous, broken and somewhat fractured, pinkish-gray
				105			@ 107 feet, becomes light gray-brown to light gray, very hard and cemented
				110			@ 109 feet, abundant heavy seepage; standing water at 116 feet
				115			VAQUEROS-SESPE FORMATION (Undifferentiated)

Bottom of Boring at 120 feet.
Notes:
1) No caving.
2) Seepage at 70.8 and 82.6 feet.
3) Standing water at 116 feet.
4) Boring downhole logged to 111 feet.
5) Boring backfilled and tamped.

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Project No 4816-04 | Figure No.: B-12.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1241 feet	BC-12

Date Drilled: 10/2/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						0			Silty CLAY: dark gray-brown, moist, stiff COLLUVIUM
									Clayey SILTSTONE: light greenish-brown, very broken @ 3-5 feet, medium greenish-brown Silty CLAY with carbonate specks, moist, stiff; probably soft, sheared bedrock @ 5-6 feet, Clayey SILTSTONE: medium greenish-brown, very closely fractured, blocky
						5			Sandy SILTSTONE: olive-brown, closely fractured @ 9 feet, dark gray with red specks and more Sandy
						10			
	40.19	9.8	126.7						Silty SANDSTONE: fine-grained, medium greenish-gray with some red mottling @ 11-12 feet, red mottling, more intense and darker @ 13-15 feet, reddish-gray with green mottling; still fine-grained
						15		BEDROCK	Sandy SILTSTONE: reddish-brown, soft at 15.5-16 feet @ 16 feet, 1/8" CLAY seam: N60W,18SW @ 16.5-17.5 feet, darker red-brown
									Silty SANDSTONE: fine- to medium-grained, deep reddish-brown with green mottling @ 19 feet, 6 inch olive-brown Sandy SILTSTONE Bed: N20W,14SW @ 20 feet, becomes medium greenish-gray and slightly cemented @ 20.5 feet, thin white cemented bed @ 20.7 feet, becomes light greenish-gray @ 21-22 feet, slight seepage (walls weeping) @ 22-23 feet, cemented, greenish-gray with red-brown mottling, still fine- to medium-grained @ 28 feet, becomes light greenish-gray and slightly cemented @ 30 feet, more reddish-brown staining
	40.19	8.4	127.8			20			
						25			

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Project No.: 4816-04

Figure No.: B-13.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1241 feet	BC-12

Date Drilled: 10/2/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
					35			@ 30.5 feet, load structure @ 30.5-31.5 feet, worm tubes @ 31.5 feet, becomes light pinkish, greenish-brown @ 32-35 feet, cemented; same color as above @ 32 feet, becomes more red-brown @ 34 feet, becomes olive-brown @ 35 feet, less cemented and red-brown with green mottling @ 36-39.5 feet, cemented and greenish-gray with red-brown mottling @ 39.5 feet, dark red-brown and finer-grained
					40			@ 41-42 feet, medium green-gray with dark green laminations
34.42	12.0	103.8			45		BEDROCK	Sandy SILTSTONE: reddish-brown, very stiff, some thin green SANDSTONE beds @ 43 feet, thin SS bed: N20W,12SW @ 43.3 feet, thin apple green SS bed @ 44-45.8 feet, Ash bed, green-gray with red strings @ 44.5 feet, Ash bed becomes olive-brown @ 45.8 feet, lower contact: N20W,16SW; thin green SS bed at base and red-brown Sandy SILTSTONE with green mottling below @ 50 feet, becomes olive-brown with red mottling @ 52-53.5 feet, some cemented nodules in red-brown with green mottling @ 53.5 feet, becomes light greenish-gray and less Sandy
					55			@ 57 feet, becomes olive-brown @ 58 feet, thin cemented bed @ 58.1 feet, becomes light greenish-gray @ 58.5-60.5 feet, well laminated and some wavy bed @ 59 feet, Bedding: N25W,17SW

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Project No. 4816-04

Figure No.: B-13.2

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1241 feet	BC-12
e Drilled. 10/2/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE

B...R	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT.	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						65			@ 60.5 feet, red-brown with green-gray mottling @ 62 feet, becomes less Sandy @ 63-64 feet, olive-brown @ 64-65 feet, red-brown and more Sandy
						70			Silty SANDSTONE: fine- to medium-grained, reddish-brown with green mottling @ 68 feet, thin green SANDSTONE Bed: N22W,14SW @ 68.8-69.2 feet, olive-brown with red streaks ASH Bed: N20W,13SW @ 68.8-69.2 feet, Sheared, olive-brown CLAY Bed with dull to moderately polished, somewhat irregular shear surface at base: N20E,16NW; no striations @ 69.2 feet, becomes greenish-gray, fine Silty SS @ 70 feet, becomes fine- to medium-grained
						75		BEDROCK	Sandy SILTSTONE: greenish-gray to olive-brown with green mottling @ 74 feet, becomes lighter colored Silty SANDSTONE: fine- to medium-grained, light greenish-gray, with white carbone cementation @ 75.5-78 feet, cemented @ 78 feet, becomes very fine and light to medium greenish-gray @ 80 feet, grades to Sandy SILTSTONE
						80			Sandy SILTSTONE: light greenish-gray, very stiff @ 81-82 feet, less Sandy with red-brown oxide staining @ 82 feet, becomes more Sandy with less red-brown oxidization @ 84 feet, some white carbonate nodules and mostly red oxide-stained with green-gray mottling
						85			Silty SANDSTONE: fine-grained, red-brown with green mottling Sandy SILTSTONE: olive-brown with red-oxide staining @ 88.5-89 feet, some cemented nodules

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Figure No.: B-13.3

LOG OF BORING

Rig.	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1241 feet	BC-12
Date Drilled: 10/2/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE | TUBE | DRIVE ENERGY FT KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

95

100

105

110

115

BEDROCK

Silty SANDSTONE: olive-brown
Sandy SILTSTONE: red-brown, very stiff
@ 91 feet, 8 inch gray SILTSTONE Bed with cemented nodules
@ 91.7 feet, olive-brown
@ 92.5 feet, thin cemented bed: N15W,13SW
@ 93.5 feet, becomes medium greenish-brown, very stiff
@ 95 feet, dark greenish-gray
@ 96.5 feet, olive-brown
@ 97.5 feet, becomes less Sandy
@ 98 feet, becomes dark greenish-gray and more Sandy

Silty SANDSTONE: fine-grained, dark greenish-gray, very dense
@ 100.5-104.2 feet, very slight seepage from SANDSTONE

Sandy SILTSTONE: dark greenish-gray

@ 107 feet, 2 inch cemented bed
@ 107.5-108.5 feet, cemented SANDSTONE Bed
@ 108-108.5 feet, cemented bed, laminations: N20W,14SW

@ 112 feet, less Sandy

@ 117 feet, thin cemented bed
@ 117-118 feet, some light gray and dark green laminations
@ 118 feet, 2 inch green SANDSTONE bed
@ 118.2-118.8 feet, Clayey SILTSTONE Bed or ASH Bed: greenish-gray to olive-brown

Silty SANDSTONE: fine- to medium-grained, medium greenish-gray

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Figure No.: B-13.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1241 feet	BC-12

Date Drilled 10/2/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions

SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
					125		BEDROCK	@ 121 feet, lighter colored Sandy SILTSTONE: medium to dark greenish-gray, slightly cemented @ 123.7 feet, cemented nodules and more Sandy @ 126.5-127.5 feet, cemented SANDSTONE Beds @ 128.5-129.5 feet, thin cemented beds
					130			@ 130 feet, 4 inch cemented bed @ 133-133.5 feet, cemented nodules, becomes more Sandy and darker green-gray
					135			Silty SANDSTONE: fine-grained, medium- to dark greenish-gray, very dense, slightly cemented @ 138.5 feet, 3 inch pinkish-gray, irregular cemented bed
					140			Sandy SILTSTONE: dark greenish-gray, very stiff @ 141.5-142.5 feet, laminated, less Sandy
					145			Silty SANDSTONE: fine-grained, dark greenish-gray @ 148 feet, becomes finer and slightly cemented, slow drilling

County

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Figure No. B-13.5

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1241 feet	BC-12
Drilled: 10/2/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
							BEDROCK	VAQUEROS-SESPE FORMATION
					155			Bottom of Boring at 155 feet.
								Notes:
								1) Slight seepage at 21, 101 and 121 feet.
								2) No caving.
								3) Boring down-hole logged and backfilled.
					160			
					165			
					170			
					175			

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Figure No.: B-13.6

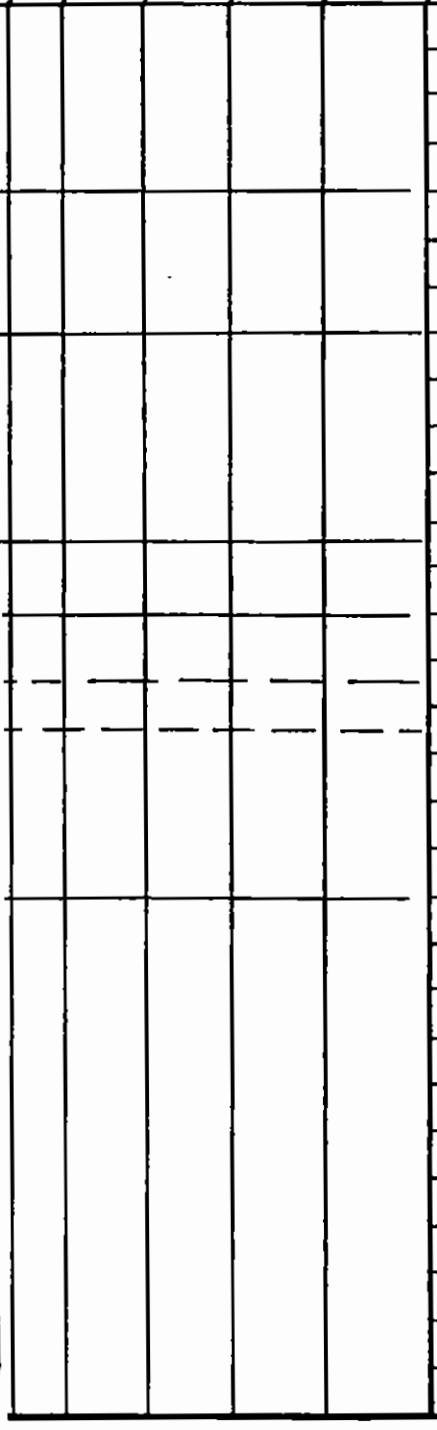
LOG OF BORING

Drill Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1427.5 feet	BC-13

Date Drilled: 10/4/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE: BULK | TUBE | DRIVE ENERGY FT. KIPS/FT. | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB./CU. FT. | SHEAR RESISTANCE KIPS/SQ FT | DEPTH, FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks



CL — Silty CLAY: dark gray, damp to moist, stiff
COLLUVIUM

Clayey SILTSTONE: olive-brown, well bedded, very closely fractured, lots of white carbonate
@ 5 feet, Bedding: N-S,16W
@ 7 feet, Contact: N20W,15SW
VAQUEROS-SESPE FORMATION

Silty SANDSTONE: dark to medium green-gray, micaceous, fine-grained
@ 8.5 feet, thin white SAND Bed: N20W,17SW
@ 9 feet, becomes fine- to coarse-grained, light green-gray and less micaceous

Sandy SILTSTONE: medium to dark green-gray, very stiff

Silty SANDSTONE: very fine-grained, light green-gray, thinly laminated and some wavy bedding

Sandy SILTSTONE: greenish-gray, thinly laminated

Silty SANDSTONE: very fine-grained, medium greenish gray

Sandy SILTSTONE: medium greenish-gray, very stiff

Silty SANDSTONE: fine-grained, light to medium green-gray, thinly laminated to 20.5 feet
@ 22.5 feet, becomes dark gerenish-gray
@ 23-29 feet, Irregular Fracture: N80W,80SW; vertical; N80W,80NE, some open portions to 3/8 inch
@ 28-29 feet, Sandy SILTSTONE
@ 29 feet, Ash Bed: N-S,11W; 2 inches thick, light brown, fine-grained and green-gray to olive-brown below
@ 30 feet, lighter colored and micaceous
@ 32 feet, becomes finer

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Figure No.: B-14.1

LOG OF BORING

Rig: Bucket Auger	Boring Diameter: 30 inches	Boring Elevation: 1427.5 feet	Boring Number: BC-13
Drilled: 10/4/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE BL	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						35		BEDROCK	Sandy SILTSTONE to very fine Silty SANDSTONE: light greenish-gray @ 34 feet, tight fracture: N75W,85SW
						40			
						45			@ 48 feet, white cemented nodules and worm tubes @ 48-49 feet, less Sandy @ 51 feet, white cementation and small Siltstone ripups
						50			Sandy SILTSTONE: dark greenish-gray to olive-brown very stiff @ 53 feet, more Sandy @ 54 feet, grades to SS Silty SANDSTONE: very fine-grained, pale greenish-gray, very dense @ 57-57.5 feet, cemented nodules @ 57.5-59.5 feet, Arkosic SANDSTONE: fine-grained, very light gray to white with pinkish-brown blotches, friable, some thin laminations and cross bedding
						55			

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Figure No.: B-14.2

LOG OF BORING

Drill Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1427.5 feet	BC-13
Date Drilled: 10/4/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling with the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE: Bulk | Tube | Drive Energy Ft Kips/Ft | Field Moisture % Dry Weight | Dry Density Lb/Cu Ft. | Shear Resistance Kips/Sq Ft | Depth Feet | Soil/Rock Symbol | Soil/Rock Type | Description and Remarks

65

Sandy SILTSTONE: dark greenish-gray, very Sandy
@ 62-64 feet, lighter colored, more Sandy
@ 64 feet, less Sandy
@ 66 feet, cemented zone , olive-brown
@ 68 feet, darker, less Sandy
@ 71 feet, more Sandy
@ 72 feet, less Sandy, cemented at 72.8 feet
@ 73 feet, 4-6 inch ASH Bed, olive brown: N15W,11SW
@ 73.5 feet, 3 inch light gray SANDSTONE Bed

70

Volcanic ASH: olive brown to pinkish-brown with pink mottling at base, very stiff

75

Sandy SILTSTONE: olive-brown, very stiff
@ 78 feet, Less Sandy

BEDROCK

80

Silty SANDSTONE: fine-grained, gray to olive brown
@ 82-83.5 feet, coarser and very slight seepage

85

Sandy SILTSTONE: olive brown
SILTSTONE: olive brown, very stiff
@ 88 feet, becomes dark greenish-gray
@ 89.5 feet, cemented nodules
@ 89.5-90 feet, olive brown
@ 90-91 feet, dark greenish-gray

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Project No.:	Figure No.:
4816-04	B-14.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1427.5 feet	BC-13

Drilled: 10/4/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE: TUBE | DRIVE ENERGY FT KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

95

Sandy SILTSTONE: dark green-gray, very slight seepage (spot)

Silty SANDSTONE: very fine- to fine-grained, dark greenish-gray, some cementation
@ 92 feet, very slight seepage (spot)
@ 93 feet, becomes medium brown

Sandy SILTSTONE: dark greenish-gray

SILTSTONE: brown to olive-brown, very stiff
@ 97.5 feet, 2 inch cemented bed N-S,10W

100

Sandy SILTSTONE: dark olive-brown
@ 99.5 feet, becomes dark green-gray and more Sandy

@ 102 feet, dark olive-brown and less Sandy
@ 104 feet, more Sandy

105

BEDROCK

@ 108 feet, becomes dark greenish-gray
@ 109 feet, less Sandy

110

Volcanic ASH: pinkish-gray to pinkish-greenish-gray, very dense

Sandy SILTSTONE: dark greenish-gray, very stiff
@ 111-112 feet, brown and less Sandy
@ 112-113 feet, olive brown then dark green-gray and more Sandy
@ 113.3-114 feet, dark green-gray Silty SANDSTONE bed
@ 114.5 feet, becomes olive brown
@ 118.5 feet, becomes more Sandy and lighter colored

VAQUEROS-SESPE FORMATION

115

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Project No: 4816-04

Figure No.: B-14.4

LOG OF BORING

l Rig.	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1427.5 feet	
e Drilled	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		BC-13
10/5/95 GDH			

SAMPLE

BLK	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						125			Bottom of Boring at 120 feet. Notes: 1) Very slight seepage at 83.5 and 92 feet. 2) No caving. 3) Boring down-hole logged and backfilled.
						130			
						135			
						140			
						145			

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Figure No.: B-14.5

LOG OF BORING

Rig:	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1394 feet	BC-14
Drilled: 10/5/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BU.	SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT.	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU.FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOILROCK SYMBOL	SOILROCK TYPE	Description and Remarks
						0	CL		Silty CLAY: gray-brown, stiff, roots TOPSOIL
									Clayey SILTSTONE: greenish-gray, well bedded, closely fractured @ 2-4 feet, Sandy SILTSTONE: reddish-gray, some thin gray-green SANDSTONE Beds VAQUEROS-SESPE FORMATION
						5			Silty SANDSTONE: fine- to medium-grained, light greenish-gray, arkosic @ 6 feet, thin red-gray SILTSTONE Bed: N10W,14SW @ 7-8.5 feet, reddish-gray SILTSTONE Bed with green SANDSTONE laminations at base @ 8.5 feet, becomes pale greenish-white
						10			@ 9 feet, becomes light pinkish-brown @ 9-9.5 feet, reddish-gray SILTSTONE rip-ups @ 10-11 feet, worm tubes or filled burrows @ 11 feet, becomes pale greenish-brown with pink mottling
						15			@ 13-14.5 feet, irregular pinkish-gray, thin layers of Silty SANDSTONE @ 16 feet, becomes slightly cemented @ 17 feet, becomes predominantly pinkish-gray with plae greenish-brown mottling and still slightly cemented
						20			@ 19 feet, worm tubes @ 20 feet, becomes finer-grained with some light gray and reddish-gray, micaceous laminations and some wavy bedding, less cemented @ 22.5 feet, becomes coarser @ 23 feet, Bedding: N20W,15SW @ 24 feet, SILTSTONE rip-ups in pinkish SAND-STONE @ 24.5 feet, 1 inch dark red-brown SILTSTONE Bed: N20W,12S
						25			@ 25-27 feet, SILTSTONE rip-ups in pinkish SANDSTONE: fine to medium, pale green-gray and light pink-gray ark. SANDSTONE with cross bedding
									Sandy SILTSTONE: medium to dark reddish-gray with light green=gray mottling
									SILTSTONE: dark olive-brown with red mottling and specks, very stiff
	22.97	7.6	119.6						
	63.16	7.2	120.9						

BEDROCK

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Project No.: 4816-04

Figure No.: B-15.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1394 feet	BC-14

Date Drilled: 10/5/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
☐	40.19	13.4	121.5					Sandy SILTSTONE: medium to dark reddish-gray with light green-gray mottling
								SILTSTONE: dark olive-brown with red mottling and specks, very stiff
								Sandy SILTSTONE: red-gray with green-gray mottling
					35			@ 33 feet, becomes more Sandy
								@ 33.5 feet, 6 inch very fine Silty SANDSTONE Bed, dark red-brown
								@ 34-35 feet, very Sandy SILTSTONE: dark red-brown
								SILTSTONE: reddish- to olive-brown, very stiff
					40			Sandy SILTSTONE: red-brown, very stiff
								@ 37 feet, olive-brown
								@ 38.4 feet, light greenish-gray with some red-brown mottling
								@ 39 feet, 6 inch cemented bed: N18W,14SW
								@ 39.5 feet, red-brown mottling
								@ 42 feet, thin cemented bed and becomes olive-brown
					45			@ 43-43.5 feet, thin cemented beds
☐	52.93	15.2	119.5					@ 44-45 feet, very thin laminations of fine, light gray SAND
								@ 45.5 feet, becomes darker and less Sandy
								@ 46 feet, some cemented nodules
								@ 46-46.5 feet, mostly reddish-gray, then becomes dark olive-brown
					50			@ 47.5 feet, grades to Sandy SILTSTONE
								Silty SANDSTONE: fine-grained, olive-brown and reddish-gray, micaceous
								@ 49.5-51 feet, mostly red-gray
								@ 51 feet, becomes coarser and lighter colored
								@ 51.5 feet, becomes olive-brown, still micaceous
								@ 52.5 feet, 2 inch green-gray SANDSTONE Bed
					55			SILTSTONE: dark olive-brown, with cemented nodules in upper half and red-brown at base
								Silty SANDSTONE: fine-grained, medium green-gray with 3 inch SANDSTONE Bed
								@ 55.7 -56.2 feet, SILTSTONE Bed
								@ 56.2 feet, 1/2-1 inch pinkish-gray and greenish-gray ASH Bed: N22W,12SW; party remolded, no basal shear

BEDROCK

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Project No: 4816-04

Figure No.: B-15.2

LOG OF BORING

Rig:	Boring Diameter:	Boring Elevation	Boring Number
Bucket Auger	30 inches	1394 feet	BC-14
e Drilled: 10/5/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE: BULK	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						65			@ 56.3 feet, becomes fine- to medium-grained, pale green-gray, thinly laminated with low angle cross bedding to 57.8 feet @ 57.8 feet, 2 inch olive-brown ASH Bed Sandy SILTSTONE: dark red-brown with green-gray mottling @ 59 feet, predominantly medium olive-brown @ 58.5-60 feet, some cemented nodules
						70			Silty SANDSTONE: fine-grained, some cemented nodules @ 60-60.7 feet, cemented bed, red-brown @ 61.7 feet, 4 inch cemented bed, very micaceous and dark reddish-gray and very fine-grained, medium gray below @ 63 feet, more Silty @ 63.5 feet, less Silty Sandy SILTSTONE: greenish-gray @ 65.8 feet, becomes red-brown with green-gray mottling and more Sandy
						75		BEDROCK	Silty SANDTSTONE: very fine-grained, red-brown, micaceous Sandy SILTSTONE: dark olive-brown, very stiff @ 69 feet, lighter colored and more Sandy @ 69.7 feet, infilled burrows and light pink
						80			Silty SANDSTONE: medium olive-brown @ 72 feet, 6 inch SILTSTONE Bed: olive-brown with cemented nodules @ 74.5-75 feet, coarser @ 75 feet, becomes very fine-grained Sandy SILTSTONE: olive-brown with cemented nodules, very stiff @ 82 feet, more Sandy and dark olive-brown @ 84 feet, grades to Silty SANDSTONE
						85			Silty SANDSTONE: very fine-grained, very dense @ 85 feet, becomes fine-grained

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Project No.: 4816-04

Figure No.: B-15.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1394 feet	BC-14
Date Drilled: 10/5/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
					95			Sandy SILTSTONE: olive-brown, very stiff
								Silty SANDSTONE: very fine-grained, olive-brown, micaceous
								@ 91.2-91.8 feet, white and gray SAND laminations
								@ 92.7-93 feet, dark olive Sandy SILTSTONE with thin SAND laminations
								Volcanic ASH? olive brown with very thin white SAND laminations
								Sandy SILTSTONE: olive-brown, thin SAND laminations
					100		BEDROCK	Volcanic ASH: dark greenish-gray to dark olive brown, very stiff, soapy texture
								@ 98.3 feet, thin, pink bentonite seam: N22W15S 1/8-1/4 inch thick, appears sheared but no well developed shear surface at the base
								@ 98.4-99.3 feet, some random shears
								Silty SANDSTONE: fine-grained, dark olive-brown
								@ 99.6 feet, becomes lighter colored
					105			VAQUEROS-SESPE FORMATION
								Bottom of Boring at 105 feet.
								Notes:
								1) No seepage encountered.
								2) No caving.
								3) Boring down-hole logged and backfilled.
					110			
					115			

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Figure No.: B-15.4

LOG OF BORING

Rig:	Boring Diameter:	Boring Elevation:	Boring Number
Bucket Auger	30 inches	1249 feet	BC-15
e Drilled.	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BU...	TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						5		LANDSLIDE MATERIAL	Sandy CLAY: brown, moist, stiff @ 4 feet, lighter colored @ 7-9.2 feet, becomes light greenish-gray Silty SANDSTONE with red-brown and orange mottling with soil and broken SILTSTONE and COBBLE @ 8-9.2 feet, gravel and cobbles in clayey matrix with Sandstone and Siltstone fragments; irregular zone @ 9.2-10 feet, orange-brown Sandy SILT
	45.94	11.9	122.3			10			@ 10 feet, sharp contact: N28W,15SW COLLUVIUM LANDSLIDE MATERIAL Clayey SILTSTONE: medium gray, moderately well bedded; some yellow jarosite, stiff @ 10.7 feet, becomes Sandy and lighter colored @ 12 feet, grades to Silty SANDSTONE
						15			Silty SANDSTONE: fine- to medium-grained with few coarse, angular grains, arkosic, light yellow-gray with some yellow jarosite staining @ 16 feet, 18 inch oval, soft weathered concretion, orange and red-brown; east side of hole @ 17.5-18.5 feet, cemented concretion with red-brown and orange oxide around outside; east side boring @ 18.5-20 feet, orange-brown and fine- to coarse-grained with rounded gravel and 1 large cobble
	45.94	7.7	133.6			20		BEDROCK	@ 20 feet, becomes light yellow to greenish-brown, fine- to medium, still arkosic @ 22 feet, becomes fine- to coarse-grained @ 24 feet, slight seepage above Clayey SS bed @ 24.5 feet, irregular, medium gray Clayey SANDSTONE @ 24.8 feet, becomes fine- to medium-grained and medium olive-brown, cemented to 25.2 feet, sl. below @ 26.5-27.5 fee,t dark green to blue-gray Sandy SILTSTONE Bed grades to Clayey SANDSTONE
						25			

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county of Orange, California

Project No:	Figure No.
4816-04	B-16.1

LOG OF BORING

Rig: Bucket Auger	Boring Diameter: 30 inches	Boring Elevation: 1249 feet	Boring Number: BC-15
Date Drilled:	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
					35			Clayey SANDSTONE: dark greenish-gray, fine- to medium-grained @ 31 feet, becomes lighter colored and fine- to coarse-grained @ 27-32 feet, some spalling from sidewalls @ 32 feet, becomes yellow-brown, irregular contact: approxiamtely N25W,12-15SW @ 33.5 feet, becomes coarser-grained and arkosic, damp @ 34.5 feet, becomes dark blue-gray and fine- to medium-grained and slightly Clayey @ 37 feet, becomes lighter colored and coarser @ 39-39.6 feet, slightly cemented @ 40 feet, becomes predominantly light yellow-brown with light green mottling @ 41 feet, slight seepage @ 44 feet, becomes fine- to medium-grained Silty SANDSTONE @ 43-45 feet, slight seepage
					40			
					45		BEDROCK	Silty SANDSTONE: fine- to medium-grained, medium blue-gray @ 45 feet, some rounded gravel @ 45-52 feet, some spalling @ 48 feet, 6 inch cemented bed @ 48.5 feet, becomes fine- to coarse-grained, damp @ 50 feet, lighter colored: light gray to green-gray, arkosic
					50			
	55.93	8.7	131.0					
					55			@ 57 feet, becomes harder, some sub-angular and rounded gravel clasts, becomes lighter colored and coarser @ 60 feet, some rounded gravel clasts

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Figure No.: B-16.2

LOG OF BORING

Rig:	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1249 feet	BC-15
Drilled: 10/10/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE BUL.	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT.	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU. FT.	SHEAR RESISTANCE KIPS/SQ. FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
	68.24	10.2	122.3			65		BEDROCK	@ 63-64 feet, cemented @ 64 feet, becomes medium greenish-gray, still fine- to coarse-grained @ 65-66 feet, some dark Siltstone ripups @ 68 feet, 6 inch cement bed
						70			@ 70 feet, 6 inch cement bed @ 71-72 feet, slightly cemented @ 72 feet, erosional contact dips WSW at about 20° Sandy SILTSTONE: dark greenish-gray, very stiff @ 73.5 feet, thin CLAY Bed: N35W,11SW
						75			Silty SANDSTONE: fine- to medium-grained, light green-gray, slightly cemented SILTSTONE: dark greenish-gray, very stiff @ 75 feet, grades to Sandy SILTSTONE
						80			Sandy SILTSTONE: medium greenish-gray, cemented nodules, damp @ 77-78 feet, lighter colored and more Sandy; grad. contact Silty SANDSTONE: fine- to medium-grained, dark green-gray, very Silty @ 79 feet, becomes lighter and coarser @ 80 feet, becomes light gray to light green-gray @ 82 feet, some rounded pebbles and gravel clasts @ 83 feet, becomes coarser @ 84 feet, fine to medium SANDSTONE Bed 2 inches thick: N20W,11SW @ 84.5 feet, less coarse @ 87 feet, 6 inch cement bed
						85			Clayey SILTSTONE: dark green-gray, very stiff @ 89 feet, less Clayey, grades to Sandy SILTSTONE

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County of Orange, California

Project No.: 4816-04

Figure No.: B-16.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1249 feet	BC-15
Drilled: 10/10/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE									Description and Remarks
& TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT.	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE		
37.42	15.4	112.6							Sandy SILTSTONE: dark to medium greenish-gray, micaceous, grades to Silty SS
									Silty SANDSTONE: fine-grained, dark greenish-gray, very dense, micaceous
					95				Silty SANDSTONE: fine-grained, dark greenish-gray, very dense, micaceous
									@ 99 feet, becomes fine- to medium-grained
					100		BEDROCK		@ 100-101 feet, slight seepage
									Sandy SILTSTONE: dark greenish-gray, very stiff, damp to moist, some cemented nodules
					105		BEDROCK		Volcanic ASH: dark greenish-gray, very stiff, sopay texture
									@ 106.7-108 feet, some random slicks
									@ 108 feet, 1/8 inch CLAY seam: N25W,11SW; somewhat irregular, some remolded, no well developed shear surface
					110				LANDSLIDE MATERIAL
									Sandy SILTSTONE: dark greenish-gray, very stiff, damp to moist; some Silty SANDSTONE interbeds
									Bottom of Boring at 130 feet.
					115		BEDROCK		Notes:
									1) Slight seepage at 24, 41, 45 and 100 feet.
									2) Minor spalling from SANDSTONE from 27-32 feet and 45-52 feet.
									3) Boring down-hole logged and backfilled.

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COUNTY OF ORANGE, CALIFORNIA

Project No..	Figure No.:
4816-04	B-16.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1245 feet	BC-15
Drilled: 10/15/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BUL	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						125		BEDROCK	Sandy SILTSTONE: dark greenish gray very stiff damp to moist; some Silty SANDSTONE interbeds
						130			VAQUEROS-SESPE FORMATION
						135			Bottom of Boring at 130 feet. Notes: 1) Slight seepage at 24, 41, 45 and 100 feet. 2) Minor spalling from SANDSTONE from 27-32 feet and 45-52 feet. 3) Boring down-hole logged and backfilled.
						140			
						145			

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County of Orange, California

Project No 4816-04

Figure No.: B-16.5

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1130 feet	BC-16

e Drilled 10/11/95 GDH

This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.

SAMPLE BLK	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH: FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
							CL		Silty CLAY: gray-brown, damp, stiff
									COLLUVIUM
									Sandy SILTSTONE: dark gray-brown, very weathered very closely fractured
									@ 4 feet, closely fractured, less blocky and dark gray to greenish-gray
						5			@ 6-7 feet, SILTSTONE: dark olive-brown to dark gray
									@ 6.5 feet, Fracture Zone: N25E,50SE, soft and broken
									@ 7 feet, dark green-gray Sandy SILTSTONE
									@ 8 feet, Shear with Carb.: N20W,42NE
						10			
	■	23.00	13.2	117.4					@ 11 feet, becomes less Sandy, olive-brown, moderately fractured
									@ 13-14 feet, SILTSTONE Bed: dips approximately 20°NW, olive-brown
									@ 14 feet, becomes olive-brown Sandy SILTSTONE
									@ 14.5 feet, Fracture: N45E,60NW
						15			Silty SANDSTONE: fine-grained, green-gray, Bedding: N63E,17NW
									Clayey SILTSTONE: olive-brown, some cemented nodules, moderately fractured; sandy at base
									Silty SANDSTONE: fine-grained, green-gray, irregular contact, cross-hole attitude: N20E,15NW
						20			Sandy SILTSTONE: green-gray to olive-brown, cemented nodules
									@ 20 feet, more Sandy
									Silty SANDSTONE: fine-grained, medium green-gray, cemented
									Sandy SILTSTONE: dark greenish-gray, very stiff
						25			@ 25 feet, becomes dark olive-brown and more fractured
									@ 25.5 feet, Shear Zone: N80E,16NW and N50W,78NE
									Silty SANDSTONE: very fine-grained, greenish-gray
	■	34.45	12.7	122.1					Sandy SILTSTONE: dark olive-brown, cemented nodules
									@ 29 feet, fewer cemented nodules

LANDSLIDE MATERIAL

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County of Orange, California

Project No.: 4816-04

Figure No.: B-17.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1130 feet	BC-16
Drilled 10/11/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
								SILTSTONE: brown, stiff, no cemented nodules @ 32 feet, very slight seepage from fracture: N-S,85W @ 32 feet, Shear: N75W,28NE; cuts fracture above @ 33 feet, becomes olive-brown and less fractured
					35			Sandy SILTSTONE: dark greenish-gray, some light pinkish-gray cemented nodules @ 35 feet, very slight seepage @ 35-36 feet, cemented, light gray @ 36-37 feet, dark green-gray again with some cemented nodules and pebbles @ 37 feet, becomes predominantly olive-brown to brown @ 39.5-40 feet, chocolate brown Clayey SILTSTONE with some rounded pebbles and gravel, sheared @ 40 feet, 1-2 inch Sheared CLAY: N80W,18NE with some polished pebbles @ 42 feet, some pinkish-gray staining
					40			
					45			Silty SANDSTONE: very fine-grained, medium olive-brown with orange oxidization, fossil fragment and some small white, round cemented nodules @ 46 feet, becomes light greenish-gray to yellow-brown @ 49-53 feet, round, cemented nodules
	21.51	9.8	110.0					
					50			@ 54.5-59 feet, Bioturbaceous, numerous filled burrows, elongate to 10 inches long and 1/2-1 inch diameter, broken and wavy dark gray SILT laminations, predominantly yellow-brown color with light orange staining @ 59 feet, less bioturbaceous @ 61 feet, fossil fragment @ 62 feet, more filled burrows @ 62.4-63 feet, cemented @ 63 feet, becomes more Silty @ 64-65 feet, intense burrowing @ 66 feet, irregular contact
					55			

LANDSLIDE MATERIAL

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Saddleback Meadows
County of Orange, California

Project No 4816-04

Figure No.: B-17.2

LOG OF BORING

Drill Rig	Boring Diameter:	Boring Elevation:	Boring Number
Bucket Auger	30 inches	1130 feet	BC-16
Date Drilled: 10/11/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE BULK	SAMPLE TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU. FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH, FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						65		LANDSLIDE MATERIAL	Sandy SILTSTONE: dark olive-brown, burrowing into SILTSTONE from SANDSTONE above @ 67.5 feet, becomes less Sandy and red-brown @ 68.5 feet, becomes more Sandy and greenish-gray
						70			Silty SANDSTONE: fine-grained, greenish-gray Sandy SILTSTONE: dark olive-brown, very stiff Silty SANDSTONE: fine-grained, yellow-brown, saturated, seepage at 71-75 feet; irregular scour surface at base
	77.55	15.9	114.4			75			Sandy SILTSTONE: dark gray to green-gray Silty SANDSTONE: fine- to medium-grained, yellow-brown
						80			Sandy SILTSTONE: dark green-gray, lots of cemented nodules, very stiff Clayey SILTSTONE: pinkish-brown with green mottling, no cemented nodules @ 79 feet, Shears: N70W,48NE and N70W,43NE @ 83 feet, tight fracture
						85		BEDROCK	@ 84.5 feet, Shear Surface: N70W,35NE: moderately polished, faint striations N20W @ 85.5 feet, 1-2 inch remolded CLAY seam, very plastic, dark green-gray with pink tinge: N70E,17NW @ 85.6 feet, Rupture Surface: N70E,15-17NW polished, slightly irregular surface LANDSLIDE MATERIAL

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County of Orange, California

Project No. 4816-04

Figure No.: B-17.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1130 feet	BC-16
Drilled: 10/11/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE: BUL., TUBE | DRIVE ENERGY FT KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | *Description and Remarks*

Clayey SILTSTONE: pinkish-brown, very stiff, some tight random shears to 86.2 feet
VAQUEROS-SESPE FORMATION

Sandy SILTSTONE: brown
@ 87.2 feet, becomes greenish-gray and more Sandy
@ 88 feet, Bedding: N70E,22NW
@ 88 feet, some pink-brown mottling
@ 90 feet, Fracture: N30E,55NW: dark green-gray on NW side and pinkish-brown on SE side
@ 93 feet, becomes harder, grades to Silty SS

Silty SANDSTONE: very fine- to fine-grained, greenish-gray, very dense
VAQUEROS-SESPE FORMATION

BEDROCK

95
100
105
110
115

Bottom of Boring at 100 feet.
Notes:
1) Seepage at 35, 71 and 75 feet.
2) No caving.
3) Boring down-hole logged and backfilled.

LOG OF BORING

Rig:	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1073 feet	BC-17
Drilled: 10/12/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE BL	SAMPLE TUBE	DRIVE ENERGY FT. KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU. FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						0	CL		Sandy CLAY: grayish-brown, damp, stiff @ 1.5 feet, becomes lighter with SILT AND SAND INCLUSIONS @ 2-4 feet, very mottled brown and yellow-brown, SANDSTONE/soil mix COLLUIVUM
						5		LANDSLIDE MATERIAL	Silty SANDSTONE: very fine- to fine-grained, light yellow to orange-brown with gray Siltstone fragments, soft, moist @ 9-18 feet, shear zone with lots of Siltstone fragments in light orange-brown matrix of very fine to fine Silty SAND: some ribbony structure; zone dips to the north
		17.23	16.4	104.4		10			
						15			@ 18-20 feet, Shear Zone: N20E,48SE; lots of Siltstone fragments and soft Clayey pockets and concretion fragments
						20			
		11.48	20.2	104.3		25			@ 26 feet, fewer Siltstone fragments, still soft, a well rounded SANDSTONE cobble

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Figure No. B-18.1

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1073 feet	BC-17
Drilled: 10/12/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions.		

SAMPLE: B	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT.	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
	■	8.60	21.7	101.2					@ 32.5 feet, very slight seepage @ 32.5-34 feet, cemented concretion on south 1/2 of boring @ 34.5-35.5 feet, concretion on north wall
						35			
								LANDSLIDE MATERIAL	@ 36.5-37.5 feet, 6 inch concretion on south wall, 14 inch concretion on north wall and very slight seepage @ 37-39.5 feet, light gray with orange and yellow mottling, very fine @ 39.5 feet, Shear Zone: N60W,42SW, striations downdip
						40			
	■	12.91	26.0	97.1					@ 41 feet, Shear in CLAY: N-S, 12-15E; irregular, well developed striations S47E @ 41.5 feet, base of Sheared CLAY, irregular; approx. N10W,18NE; becomes orange-brown again below, very moist; SANDSTONE below @ 43 feet, 12 inch concretion, very slight seepage @ 44-45 feet, Siltstone fragments in brown Silty SAND Matrix on east wall
						45			
									@ 45-46.5 feet, light gray, very fine-grained Silty SS, dips NE at about 25° @ 46-47 feet, fossil hash, medium orange-brown
						50			
	■	12.91	22.2	104.4					@ 51 feet, light gray, very fine Silty SANDSTONE along shear @ 51.7 feet, light seepage @ 52-53.5 feet, Shear Zone: N20W,75NE; dark brown SILTSTONE on SE side
						55			
									@ 56 feet, large dark gray Siltstone fragment @ 57 feet, large gray Sandstone fragments @ 57-57.5 feet, zone of dark gray, very plastic Silty CLAY @ 57.6 feet, Rupture Surface, somewhat irregular: N65W,18NE; striations N60W, well developed @ 57.6-59 feet, fine,soft, medium to dark gray Silty SANDSTONE, micaceous

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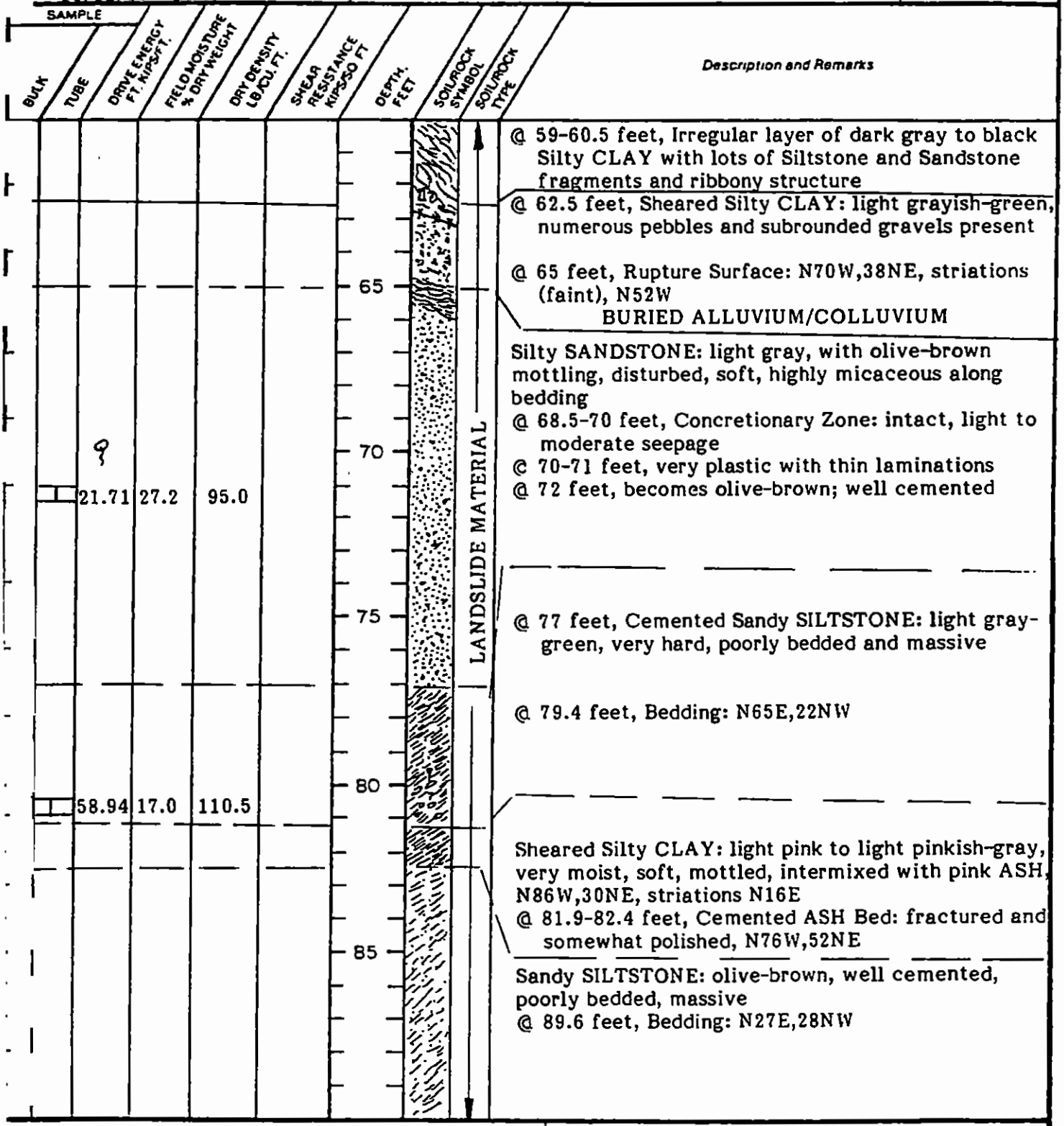
Project No.: 4816-04

Figure No.: B-18.2

LOG OF BORING

Drill Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1073 feet	BC-17

Logged	
10/12/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions



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Saddleback Meadows
County of Orange, California

Project No..	Figure No.:
4816-04	B-18.3

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1073 feet	BC-17
Drilled: 10/12/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE: BUL. | TUBE | DRIVE ENERGY FT. KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks

95
100
105
110
115

MATERIAL

LANDSLIDE

@ 91.6 feet, Silty SANDSTONE: fine-grained, light gray, well cemented, micaceous, N75W,33NE

@ 95.5 feet, N25W,36NE

@ 100.7-101.2 feet, Sheared Silty CLAY: pinkish-gray, very soft, moist, polished, mottled, unstriated, N75W,21NE

@ 101.2-102.2 feet, Cemented ASH Bed: irregular, broken, polished and striated, N70W,12NE, Striation N23E

Sandy SILTSTONE: greyish-green, very well cemented, massive, hard

@ 105.8 feet, Silty SANDSTONE: fine-grained, olive-brown, poorly bedded, moderately hard

@ 109 feet, becomes light grayish-green, highly micaceous, less cemented, somewhat weathered

@ 111.4 feet, 8 inch thick irregular Silty CLAY Bed: polished, stiff

Sandy SILTSTONE: olive-brown, well cemented, poorly bedded

Sheared Silty CLAY: olive-brown to light gray-green, very moist, internally sheared, highly polished, mottled, well defined rupture surface at 120.5 feet: N41W;26NE

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Project No: 4816-04

Figure No.: B-18.4

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1073 feet	BC-17
Drilled 10/12/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE

BL	TUBE	DRIVE ENERGY FT KIPS/FT	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB/CU FT	SHEAR RESISTANCE KIPS/SQ FT	DEPTH FEET	SOIL/ROCK SYMBOL	SOIL/ROCK TYPE	Description and Remarks
						125			@ 120.5-121 feet, Bentonitic ASH, pinkish-gray, somewhat cemented and stiff, appears intact Sandy SILTSTONE: olive-brown, well cemented, hard Silty SANDSTONE: fine-grained, light gray, micaceous, hard, poorly bedded @ 126.9 feet, Sandy SILTSTONE: olive-brown, very well cemented, well indurated, poorly bedded and massive
						130			Silty SANDSTONE: fine-grained, light gray, well cemented, hard, poorly bedded
						135			@ 137.2-137.4 feet, Sheared Silty CLAY: olive-brown, polished, irregular faint striations, moist, stiff, N73W,24NE Silty SANDSTONE: light gray, well cemented, hard, massive, poorly bedded
						140			@ 141.8 feet, Silty CLAY : intermixed with broken scattered cherty fragments @ 142.4 feet, Sheared Silty CLAY: remolded, mottled, chaotic mixture with pockets of pink ASH @ 143.2 feet, Rupture Surface (?) N20W,41NE, striations (highly irregular) N18E to N70E
						145			Sandy SILTSTONE: olive-brown, well cemented, poorly bedded @ 146 feet, becomes dark pinkish-brown, highly polished on fresh surfaces, unsheared, well cemented, intact @ 147.5 feet, Bedding: N40W,44NE

LANDSLIDE MATERIAL

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County of Orange, California

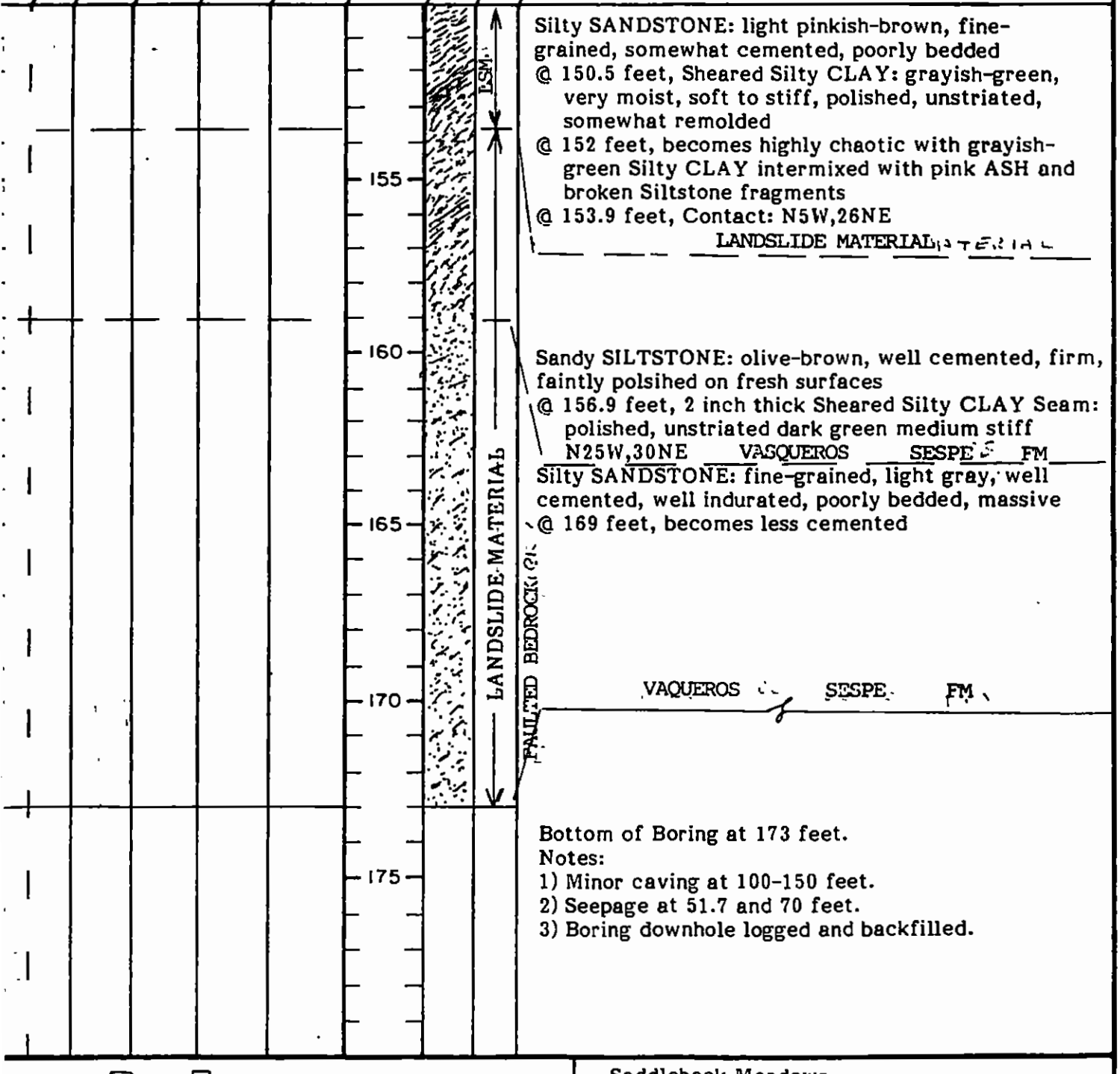
Project No. 4816-04

Figure No. B-18.5

LOG OF BORING

Rig	Boring Diameter	Boring Elevation	Boring Number
Bucket Auger	30 inches	1073 feet	BC-17
Drilled: 10/12/95 GDH	This log is a representation of subsurface conditions at the time and place of drilling. With the passage of time or at any other location there may be consequential changes in conditions		

SAMPLE | TUBE | DRIVE ENERGY FT. KIPS/FT | FIELD MOISTURE % DRY WEIGHT | DRY DENSITY LB/CU FT | SHEAR RESISTANCE KIPS/SQ FT | DEPTH FEET | SOIL/ROCK SYMBOL | SOIL/ROCK TYPE | Description and Remarks



Silty SANDSTONE: light pinkish-brown, fine-grained, somewhat cemented, poorly bedded

@ 150.5 feet, Sheared Silty CLAY: grayish-green, very moist, soft to stiff, polished, unstriated, somewhat remolded

@ 152 feet, becomes highly chaotic with grayish-green Silty CLAY intermixed with pink ASH and broken Siltstone fragments

@ 153.9 feet, Contact: N5W,26NE

LANDSLIDE MATERIAL

Sandy SILTSTONE: olive-brown, well cemented, firm, faintly polsihed on fresh surfaces

@ 156.9 feet, 2 inch thick Sheared Silty CLAY Seam: polished, unstriated dark green medium stiff N25W,30NE VASQUERES SESPE FM

Silty SANDSTONE: fine-grained, light gray, well cemented, well indurated, poorly bedded, massive

@ 169 feet, becomes less cemented

VAQUEROS SESPE FM

Bottom of Boring at 173 feet.

Notes:

1) Minor caving at 100-150 feet.
2) Seepage at 51.7 and 70 feet.
3) Boring downhole logged and backfilled.

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Saddleback Meadows
County of Orange, California

Project No 4816-04

Figure No : B-18.6

APPENDIX C

Slope Stability Analyses
Cross Sections

DRAFT
RESPONSE TO COMMENTS

SUBSEQUENT ENVIRONMENTAL IMPACT REPORT NO. 566

SADDLEBACK MEADOWS
Recorded Tract Map 10692

State Clearinghouse No. 96121072

Prepared for:

ORANGE COUNTY PLANNING &
DEVELOPMENT SERVICES DEPARTMENT

Prepared by:

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October 1997

DRAFT
RESPONSE TO COMMENTS

SUBSEQUENT
ENVIRONMENTAL IMPACT REPORT
NO. 566
State Clearinghouse No. 96121072

SADDLEBACK MEADOWS
Recorded Tract Map No. 10692

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October 1997

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	3.	State of California, Business and Transportation Agency, Department of Transportation (CAL)	III-5
	4.	SFC/Saundra F. Jacobs, REA (SFC)	III-6
	5.	Connor, Culver, Blake, Griffin, LLP (CCBG)	III-8
	6.	The Gas Company (TGC)	III-11
	7.	Connor, Culver, Blake, Griffin, LLP (CCBG.2)	III-12
	8.	U.S. Fish & Wildlife Service/California Department of Fish & Game (USFWS)	III-14
	9.	City of Mission Viejo (CMV)	III-31
	10.	Bowie, Arneson, Kadi, Wiles & Giannone (BAKWG)	III-39
	11	The Orange County Transportation Authority (OCTA)	III-48
	12.	Kimberly A. Stocking (KAS)	III-49
	13.	TPG Management (TPG)	III-50
	14.	Wayne L. Brown (WLB)	III-54
	15.	Amber Graves (AMG)	III-55
	16.	Debra Moddelmog (DBM)	III-56
	17.	Justin Watson (JW)	III-57
	18.	City of Lake Forest (CLF)	III-58
	19.	Southern California Association of Governments (SCAG)	III-62
	20.	Saddleback Valley Unified School District (SVUSD)	III-76
	21.	State of California - Resources Agency, Department of Parks and Recreation (DPR)	III-78
	22.	Rural Canyons Conservation Fund (RCCF)	III-80

23. Governor's Office of Planning & Research (GOPR) III-87
24. Rutan & Tucker, LLP (RAT) III-88
25. SFC/Saundra F. Jacobs, REA (SFC.2) III-99
26. Connor, Culver, Blake, Griffin, LLP (CCBG.3) III-133

APPENDIX A

Letters Received from Commenting Agencies, Groups and Individuals

APPENDIX B

Letter from Thomas B. Mathews to CONNOR, CULVER, BLAKE & GRIFFIN, LLP, Edmond M. Connor, August 12, 1997

Letter from Thomas B. Mathews to SFC CONSULTANTS, Sandra F. Jacobs, August 14, 1997

Letter from Thomas B. Mathews to RUTAN & TUCKER, LLP, David B. Cosgrove, August, 1997

Letter from Thomas B. Mathews to SADDLEBACK VALLEY UNIFIED SCHOOL DISTRICT, Mary Lou Smith, August 14, 1997

I. INTRODUCTION

This document comprises the Response to Comments volume of the Final Environmental Impact Report (FEIR) No. 566 for Saddleback Meadows (Recorded Tract Map No. 10692/GA 960048. The purpose of this document is to:

> Respond to all comments of environmental significance received by the County of Orange relative to the Draft Environmental Impact Report (DEIR) No. 566, State Clearinghouse Number 96121072; and incorporate revisions and minor additions into the DEIR based upon public and agency comments.

Several of the comment letters received on the DEIR have stated that certain mitigation measures contained in the DEIR defer or put off actual mitigation requirements to a future time, beyond the certification of the Final EIR. Although a grading permit application was the initiating action which resulted in the determination that DEIR 566 be prepared, grading is only one of the issues being evaluated in the CEQA document. The CEQA document will consider the entire action, which in this case, is the development of a 705-unit manufactured housing subdivision and a small commercial site on the project site. Certification of the Final EIR by the Orange County Planning Commission, if acted on, signifies that the environmental effects of the proposed project have been adequately evaluated and considered, and in no way, authorizes the issuance of a grading permit which would allow commencement of onsite grading activities. Rather, once the final DEIR has been certified, the actual grading plans for the proposed project will be subjected to a thorough geotechnical and grading design plan check process. This process will require submittal of 40 scale grading plans for the entire grading operation being proposed, along with a detailed geotechnical report which will evaluate several factors including slope stability, remedial grading methods, sub-grade requirements and inspection information. The grading plans, the content of which is currently unknown, must meet all County of Orange procedural and substantive grading code requirements, and all conditions and mitigation measures tied to the grading permit must be satisfied, prior to issuance of the grading permit.

Several of the mitigation measures contained in DEIR 566, primarily standard condition (SC) mitigation measures, mandate the completion of a mitigation activity *prior to the issuance of any grading permit.* Standard Conditions or mitigation measures have been developed and adopted by the County of Orange Planning and Development Services Department, and are included, as required, in all CEQA documents prepared by the department. Completion of the specific activities addressed by these mitigation measures, at this stage of the planning process, would be premature. Should any *prior to any grading permit* related mitigation measure result in the generation of significant new information and new significant impacts not previously addressed by the Final EIR, a new CEQA document would be triggered and a new CEQA process will be initiated.

A. PUBLIC REVIEW PROCESS

The DEIR was distributed to various public agencies, citizens groups and interested individuals on June 27, 1997 and comments were received for a period of 45 days with the State Clearinghouse, Office of Planning and Research responsible for the coordination of

State of California Agency comments. The comment period closed August 12, 1997, with a total of 18 comment letters received.

In accordance with Section 15132 of the State CEQA Guidelines, a list of the persons, organizations and public agencies making comments on the DEIR is indicated in the matrix contained in this document. Comments / testimony and associated responses have been retyped and correspondingly numbered in sequential order. Copies of all actual DEIR comment letters are contained in Appendix A. of this document. Each comment is retyped as it appears in the actual letter including typographical errors. Responses follow each comment.

B. ORGANIZATION OF COMMENTS AND RESPONSES

Section 15088 of the CEQA Guidelines requires the County of Orange as the Lead Agency to evaluate comments on environmental issues received from public agencies, groups, and persons and to prepare written responses to comments received.

The following response to comments sections are included in this document:

1. Matrix of Agencies and Interested Persons Commenting on the DEIR

2. Responses to Written Comments

3. Letters Received from Commenting Agencies and Persons

In accordance with Public Resources Code 21092.5 (a) and the CEQA Guidelines, the Response to Comments document will be circulated to commenting public agencies, organizations, and individuals, a minimum of 10 days prior to certification of the Final EIR.

II. CORRECTIONS AND ADDITIONS TO THE DRAFT EIR

II. CORRECTIONS AND ADDITIONS TO THE DRAFT EIR

This "*Corrections and Additions to the Draft EIR*" section contains revisions to information contained in the Draft EIR based on: (1) additional or revised information required to prepare a response to a specific comment, (2) updated information which has become out-of-date as a result of the passage of time, and/or (3) typographical errors.

1. Page I-1, Paragraph and Page 4-41, paragraph 4: Change the spelling of *effect* to *affect*.

2. Page 4-126, paragraph 3: Delete the sentence that states, *No amphibians were observed during the surveys of the site,* and add *the Western spadefoot toad was observed onsite in two of the ephemeral ponds.*

3. Page 4-123, Paragraph 2: Add the phrase *Southern Orange County Subregion* to follow NCCP.

4. Page 4-126, Paragraph 3: Add the following sentence: *The western spadefoot toad, Pacific treefrog and the western toad are expected to distributed across the project site and the surrounding area.*

5. Page 4-126 - Reptiles: Change the spelling of orangethroat whiptail to *orange throated whiptail.*

6. Page 4-130, Paragraph 1: Add the following statement: *The Cleveland National Forest is not a participant in the Orange County NCCP Southern subregion.*

7. Page 4-152, Paragraph 4: Add the following mitigation measure: *Prior to the issuance of any grading permit, the applicant shall provide proof that the project site has been currently surveyed for coastal California gnatcatcher, in accordance with the United States Fish and Wildlife Service protocol, to the satisfaction of the manager, PDS/Subdivision and the Administrator, Planning and Zoning.*

8. Page 4-130, Paragraph 3: Change central subregion to *central-coastal subregion.*

9. Page 4-136, Exhibit 53: Please refer to revised Exhibit 53, at the end on Section II.

10. Page 4-137, Paragraph 3: Add the following statement: *The western spadefoot toad is a California state species of concern.*

11. Page 4-139, Paragraph 2: Add San Bernardino County to the distribution list.

12. Page 4-153, Paragraph 4: Add the following mitigation measure: *Prior to the issuance of any grading permit, the applicant shall provide proof that the project site has been currently surveyed for the Quino checkerspot, in accordance with the survey protocol requirements of the United States Fish and Wildlife Service, to the satisfaction of the*

manager, PDS/Subdivision and the Administrator, Planning and Zoning.

13. Page 4-412, Table 27: Change the scientific name of the Northern harrier to *Cirous cyaneus.*

14. Page 4-52, Paragraph 7: Replace the third sentence with the following: *The proposed project is expected to generate approximately 8.340 trip-ends per day with 540 vehicles per hour in the AM peak hour and 825 vehicles per hour during the PM peak hour.*

15. Page 4-234, Paragraph 4: Add the following mitigation measure:

Prior to undertaking construction of the project, the applicant shall enter into an improvement agreement with the District to provide for the design, construction, installation, dedication and funding of all necessary master plan and in-tract storage facilities or, alternatively, pay the district's in-lieu water storage fees, as required under the district's rules and regulating and the tract map approval for Tract No. 10692.

16. Page 4-234, Paragraph 4: Add the following mitigation measure:

Prior to undertaking construction of the project, the applicant shall enter into an improvement agreement with the district to provide for the design, construction, installation, dedication and funding of all necessary master plan and in-tract storage facilities or, alternatively, pay the district's in-lieu water storage fees, as required under the district's rules and regulating and the tract map approval for Tract No. 10692.

17. Page 2-2, Environmental Procedures: Add the following bullet to the section: City of Lake Forest Community Development Department, April 23, 1997.

18. Page 4-214, Table 33: Replace Table 33 with the following table;

Table 33
PROJECT RELATED STUDENT GENERATION

Grade	Units	Student Generation Factor	Student Generation
K-6	705	0.2264	160
7-8	705	0.0566	40
9-12	705	0.0755	54
Total	**705**	**0.3585**	**254**

19. Page 4-210, Paragraph 4: Add the following sentence: *Currently, students in this general area are assigned to Portola Hills Elementary, Rancho Santa Margarita Intermediate and*

either El Toro or Trabuco Hills High School. All of these schools are filled to capacity and either do have now or will have by fall 1997, added a number of relocatable buildings to house enrollment exceeding the capacity of their original construction.

20. Page 4-1 through 4-235: All *should* wording contained within mitigation measures is changed to *shall.*

21. Page 2-7, Table 3: Change Ordinance 3486 to Ordinance 3468.

22. Page 4-39, Exhibit 22: Exhibit 22 is revised to include storm drain reference numbers. Please see revised Exhibit 22 at the end of Section II.

23. Page 4-94, Paragraph 2: The first sentence should read, *The bulk of the proposed project's impact will derive from the approximately 8,340 daily trips that will be generated at full site buildout.*

24. Page 4-155, Mitigation Measure 7-8: the following mitigation measure is added to the draft EIR: *All biological resource mitigation measures shall be monitored for compliance with applicable resource agency requirements and established success criteria, to the satisfaction of the manager PDS/Subdivisions and the Administrator Planning and Zoning.*

25. Page 4-158, Mitigation Measure 7-15: Change the working *should* to *shall.*

26. Page 4-174, Mitigation Measure 8-4: Add the following: *The applicant shall provide a fair share contribution to the Trabuco Canyon Water District for the purposes of water tank landscape screening.*

III-A. MATRIX OF AGENCIES AND INTERESTED GROUPS AND PERSONS COMMENTING ON THE DRAFT EIR

SADDLEBACK MEADOWS
DRAFT EIR NO. 566
SCH. NO. 96121072

Request for Public Comments
Public Review Period
June 27, '97 to August 12, '97

COMMENTATORS	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset/Human Health	Population/Housing	Right of Way/Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics/View/Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/Non-CEQA
June 29, 1997 1. Robert A Hamilton/CNB P. O. Box 961 Trabuco Canyon, CA 92678							X																							X	X
July 16, 1997 2. Transportation Corridor Agencies Steve Letterly, Director 201 E. Sandpointe Avenue Suite 200/P. O. Box 28870 Santa Ana, CA 92799-8870																															X
July 17, 1997 3. State of California-Business & Transportation Agency Department of Transportation District 12 2501 Pullman Street Santa Ana, CA 92705																															X
August 5, 1997 4. SFC/Saundra F. Jakobs 28012 Maguerite Pkwy. Suite H 424 Mission Viejo, CA 92692	X		X																											X	

SADDLEBACK MEADOWS
DRAFT EIR NO. 566
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August 6, 1997 5. Connor, Culver, Blake & Griffin, LLP. 2600 Michelson Dr. Suite 1450 Irvine, CA 92612	X		X																											X	
August 7, 1997 6. The Gas Company P. O. Box 3334 Anaheim, CA 92803																			X												
August 8, 1997 7. Connor, Culver, Blake & Griffin, LLP. 2600 Michelson Dr. Suite 1450 Irvine, CA 92612	X		X																											X	
August 8, 1997 8. U.S. Fish & Wildlife Service/ California Dept. of Fish & Game 2730 Loker Ave. Carlsbad, CA 92008			X	X			X			X																	X				

SADDLEBACK MEADOWS
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COMMENTATORS	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset/Human Health	Population/Housing	Right of Way/Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics/View/Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/Non-CEQA
August 11, 1997 9. City of Mission Viejo 25909 Pala Suite 200 Mission Viejo, CA 92681	X	X	X		X	X	X	X		X				X														X			
August 11, 1997 10. Bowie, Arneson, Kadi, Wiles & Giannone 4920 Campus Drive Newport Beach, CA 92660																				X										X	X
August 11, 1997 11. The Orange County Transportation Authority Ben Jarvis, Associate Transporation Analyst 550 S. Main Street/P. O. Box 14184 Orange, CA 92863-1584																															X
August 11, 1997 12. Kimberly A. Stocking 26 Yellowpine Lane Trabuco Canyon, CA 92679	X																X											X			

SADDLEBACK MEADOWS
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August 12, 1997 13. TPG Management, Inc. 1601 Dove Street Suite 105 Newport Beach, CA 92660	X																											X			
August 12, 1997 14. Wayne L. Brown 19252 Sleeping Oak Trabuco Canyon, CA 92679							X		X																						
August 12, 1997 15. Amber Graves 19252 Sleeping Oak Trabuco Canyon, CA 92679					X		X																					X			
August 12, 1997 16. Debra Moddelmog 19252 Sleeping Oak Trabuco Canyon, CA 92679					X		X																								

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COMMENTATORS	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset/Human Health	Population/Housing	Right of Way/Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics/View/Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/Non-CEQA
August 12, 1997 17. Justin Watson 19252 Sleeping Oak Trabuco Canyon, CA 92679									X																X						
August 12, 1997 18. City of Lake Forest 25161 Lake Center Drive Suite 100 Lake Forest, CA 92630			X		X		X		X					X			X													X	X
August 12, 1997 19. J. David Stein/Manager, Performance Assessment and Implementation Southern California Association of Governments 818 W. Seventh Street, Sixth Fl. Los Angeles, CA 90017	X		X						X					X													X	X	X		X
August 13, 1997 20. Saddleback Valley Unified School District 25831 Diseno Drive Mission Viejo, CA 92691																	X														

SADDLEBACK MEADOWS
DRAFT EIR NO. 566
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Public Review Period
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COMMENTATORS	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset/Human Health	Population/Housing	Right of Way/Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics/View/Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/Non-CEQA
August 15, 1997 21. State of California - Resources Agency Department of Parks and Recreation 17801 Lake Perris Dr. Perris, CA 92571							X		X									X										X			
August 18, 1997 22. Rural Canyons Conservation Fund P. O. Box 550 Trabuco Canyon, CA 92072	X				X									X			X											X		X	X
August 19, 1997 23. Governor's Office of Planning & Research 1400 Tenth Street Sacramento, CA 95814																														X	
August 21, 1997 24. Rutan & Tucker, LLP 611 Anton Boulevard Suite 1400 Costa Mesa, CA 92626	X		X						X															X				X		X	X

SADDLEBACK MEADOWS
DRAFT EIR NO. 566
SCH. NO. 96121072

Request for Public Comments
Public Review Period
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COMMENTATORS	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset/Human Health	Population/Housing	Right of Way/Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics/View/Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/Non-CEQA
August 22, 1997 25. SFC/Saundra F. Jakobs 28012 Maguerite Pkwy. Suite H 424 Mission Viejo, CA 92692	X		X	X		X	X	X	X				X	X					X					X	X			X		X	X
August 27, 1997 26. Connor, Culver, Blake & Griffin, LLP. 2600 Michelson Dr. Suite 1450 Irvine, CA 92612	X		X						X					X															X	X	X

III-B. RESPONSE TO WRITTEN COMMENTS

III-B. RESPONSE TO WRITTEN TESTIMONY

Section III-B of this document contains Responses to Comments received on the Draft EIR during the Public Review period. Letters are arranged according to the dates received. Comments that present information which are not related to the environmental effects of the proposed project or the Draft EIR itself are noted, and will be referred to the appropriate decision-maker for consideration for consideration. Actual letters are contained in Appendix A. of this document.

COMMENTS AND RESPONSES - Robert A. Hamilton, June 29, 1997

RAH-1

Comment

> On behalf of the Orange County Chapter of the California Native Plant Society (CNPS), and on my own behalf as a wildlife biologist, I offer the following comments on Draft Subsequent EIR No. 566. My knowledge of the CEQA review process, as it applies to biological resources in Orange County and the region, derives from over eight years' experience as a full-time biological consultant based in Orange County. During this time, I have prepared numerous biological technical reports for CEQA documentation covering large and small projects throughout Orange County and elsewhere in the region. I've certainly never encountered a situation where a project, once denied because of its incompatibility with applicable planning and zoning laws, was resubmitted in a form that actually flaunts the law more flagrantly than it did the first time around. I know better than to inquire about the circumstances under which such a ridiculous situation has come to be, or to spend much time actually considering the new development scheme.

Response

> The comment states the qualifications of the commentator and his opinion relative to the consistency of the proposed project with applicable planning and zoning laws. A detailed discussion of the relationship between the recorded tract map and existing zoning and planning laws is contained in Section 4.1.3 of the DEIR on page 4-11.

RAH-2

Comment

> On 29 February 1996, I submitted a letter to the County of Orange (County) commenting on DEIR No. 561, which covered the applicant's previously proposed project on this same site. This letter contained 26 comments (many more, actually, but that's the number that were responded to in any form). Most of my comments addressed the DEIR's factual errors and internal inconsistencies. I also suggested a number or realistic solutions to problems that I identified.
>
> I have just completed a review of the responses prepared by the applicant/County in response

to my previous letter, and now remember afresh that most of my direct questions and comments were sidestepped, ignored, vaguely acknowledged, or responded to in a manner that obfuscated the comment's intent. This, combined with the fact that the new project makes no pretense of complying with planning and zoning laws, or the concerns of this community, indicates to me that the applicant/County has no meaningful interest in my thoughts or opinions.

I'm sure this is a common reaction of citizens who commented on the previous DEIR, but I find the situation particularly confounding, as the County recently selected me to serve on the 37,000-acre Nature Reserve of Orange County's Technical Advisory Committee. According to the 23 May 1997 appointment letter that I received from Executive ?Director Tim Neely, this committee will "serve as advisors to the Board of Directors on issues relating to monitoring , management and science." These are precisely the types of issues that I have commented on with regard to this project. I can't be an ignorant gadfly and a trusted scientific advisor simultaneously, so I ask the County to make up its mind.

Response

The referenced letter dated February 29, 1996 which was directed at DEIR 561, was apportioned into 26 distinct comments for the purpose of preparing concise responses. Each comment was individually responded to and, in general, directed the commentator to the location in DEIR 561, where the information requested was located.

RAH-3

Comment

Finally, I ask at least one County planner to review the responses that the applicant's consultants gave to my previous comments on this project; these were given with your approval and under your agency's name. If the goal of the Environmental & Project Planning Services Division is to completely frustrate the few citizens who take the time to read and comment on your EIRs, and to thus subvert the California Environmental Quality Act, you have succeeded.

Response

This comment is directed at DEIR 561 for a conventional subdivision of 318 single family dwellings (SFDs). The preparation of the previous Response to Comments Document was extensively reviewed and/or revised by staff of the Orange County Planning and Development Services Department, Environmental & Project Planning Division staff. All responses to comments contained in the referenced document were prepared in accordance with the requirements of CEQA and the CEQA Guidelines.

RAH-4

Comment

If the County is interested in taking a step in a more productive direction, I suggest that you spend a few dollars having an outside biological consultant review biological assessments *and* responses to comments prepared for major EIRs. For documents prepared by biologists based outside of Orange County, the reviewing firm should be based within Orange County, as consultants based elsewhere often display limited knowledge of the status and distribution of plant and animal species in Orange County. This simple and relatively cheap process would greatly improve the quality and credibility of the County environmental documents; it is a fairly common practice for CEQA lead agencies statewide.

Response

The comment indicating that biological firms based outside of the County have less credibility and knowledge than those based within the county is without basis. In fact, many of the firms and individuals involved with developing the Orange County NCCP are not based in the County. The Planning and Development Services Department does not require second party review practices.

COMMENTS AND RESPONSES - TRANSPORTATION CORRIDOR AGENCIES
Steve Letterly, Director, July 16, 1997

TCA-1

Comment

Thank you for providing the Transportation Corridor Agencies (TCA) with the opportunity to review and comment on the subject Draft EIR. Staff has reviewed the Draft EIR and has no comments at this time. If you have any questions regarding this correspondence, please contact Laura Coley Eisenberg of my staff at (714) 513-3482.

Response

The comment is noted. No response is required.

COMMENTS AND RESPONSES - STATE OF CALIFORNIA, BUSINESS AND TRANSPORTATION AGENCY, DEPARTMENT OF TRANSPORTATION/Robert F. Joseph, Chief, July 17, 1997

CAL-1

Comment

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report for Saddleback Meadows. The proposed project is for the phased development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure. The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor approximately ½ mile south of the El Toro Road/Live Oak Canyon Road intersection. Caltrans District 12 is a reviewing agency and has no comment at this time.

Please continue to keep us informed of future developments which could potentially impact our State Transportation Facilities. If you have any questions, or need to contact us, please call Aileen Kennedy on (714) 724-2239.

Response

The comment is noted. No response is required.

COMMENTS AND RESPONSES - SFC CONSULTANTS/Saundra F. Jacobs, REA, Principal, August 5, 1997

SFC-1

Comment

I want to thank you and Bill Grieman again for providing for me, not only the previous EIR's for Saddleback Meadows, but for providing a desk and room for me to review these documents in your office.

While I intend to provide the County with my comments to Draft EIR 566, I would like a reasonable period of time to review the current Phase I grading plans which area referenced in the Draft EIR. My objective would be to determine whether the Draft EIR adequately addresses the impacts associated with the proposed grading shown on the grading plans. Unfortunately, I have been informed that the grading plans, which are the subject of the grading permit application, are not currently on file at the County for me to review at this time. I was able to review an older version of the grading plans that Bill Grieman had available. However, I have been told that I can make separate arrangements with the applicant to obtain a copy of the current grading plans, but that would take additional time and money that I had not planned on spending. Under the circumstances, I would ask that I be provided with an extension of time to submit comments on the Draft EIR, after I have had a chance to review the grading plans, which I hope will be made available at the County shortly.

I am requesting a three-week extension to the September 12, 1997 deadline, to review not only the grading plan, but also to review the files to the Zone Changes previously approved by the County. I have asked the Clerk of the Board to pull files for the following Zone Change Applications: ZC 79-24, ZC 82-63 and ZC 84-3, and I have received a call back from Beverly at the Clerk of the Board, indicating that these files should be available for my review sometime this week.

Please let me know whether you office will be able to accommodate my request for the three-week time extension to submit comments on the Draft EIR. The August 12 deadline is coming on too fast for me to be able to complete my review of all the necessary documents, particularly the grading plans, so I hope that you will be able to grant me the extra time I have requested. Please call me with your response.

Response

Although a grading plan application is the initiating activity which resulted in the determination that DEIR 566 be prepared, grading is only one of the issues being evaluated in the CEQA document. The County's CEQA action will consider the entire action, which in this case, is the development of a 705 unit manufactured housing subdivision and a small retail site on the project site.

Sufficient detailed grading and related geotechnical information is available in DEIR 566, including information incorporated by reference from DEIR 561, prepared for the previous 318 unit proposal, in Section 4.2 of the DEIR, beginning on page 4-33. The information is based upon extensive geotechnical investigations conducted for the project site, which are contained in the Appendices for DEIR 566 and DEIR 561.

The geotechnical information contained in DEIR 566 meets standard practices of the County of Orange, which requires sufficient grading information for a planning decision. The planning level of detail includes the location of landslides, faults and other geotechnical hazards, the types of soil, and proposed grading concepts, including post grading topography, being proposed.

Standard 40 scale grading plans and accompanying more detailed geotechnical review documents and detailed hydrology reports will be reviewed and approved by the Subdivision and Grading Services Division, in consultation with various other divisions of the County including Environmental and Project Planning Services Division, prior to issuance of a grading permit. If significant new impacts, not previously addressed, are discovered at that time, a new CEQA document will be required.

COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN, LLP.
Edmond M. Connor, August 6, 1997

CCBG-1

Comment

As you know, August 12, 1997 is the current deadline for submitting comments on Draft EIR 566, the subsequent environmental impact report which has been prepared in connection with the grading permit application submitted by the developer of the Saddleback Meadows project. Our firm has been asked to submit comments on the Draft EIR on behalf of the Vedanta Society of Southern California (the "Society") which owns and maintains the Ramakrishna Monastery adjacent to the project site. However, due to an unusual set of circumstances, we find ourselves unable to submit comments prior to the August 12 deadline because critically important documents that we and our consultants need to analyze in assessing the adequacy of Draft EIR 566 have not been made available for public review.

The problem that we have encountered is that we have not been able to gain access to the developer's grading plans which are the *sine qua non* of the grading permit application process. Without such plan, no permit can be issues. Moreover, without access to the grading plans themselves, it is impossible to comment on the adequacy of Draft EIR 566 which, as stated in the Initial Study, was prepared for the express purpose of evaluating the environmental effects associated with the grading permit application.

Indeed, without being able to review the grading plans, neither our firm, nor the geotechnical consultants which have been engaged on behalf of the Society, can determine whether Draft EIR 566 properly evaluates the impacts, and adequately addresses the mitigation measures, associated with the proposed grading of the Saddleback Meadows property. Thus, the Society is effectively stymied in its ability to submit adequate comments on the Draft EIR by the August 12 deadline.

Last Friday, during a meeting with Messrs. McGill and de Mayo at the County offices, I asked if I could obtain copies of the grading plans, but I was informed that the County had returned the plans to the developer and no longer had a set available for public review. I was also told that, if I wanted to obtain a copy of the grading plans, I would have to contact the developer directly and make arrangements to pay for copies of the plans to be made. Although my office promptly contacted the developer's agent, TPG Management, immediately following my meeting at the County, and then, first thing Monday morning, messengered a check to TPG to comply with its demand that we pay *in advance* for the cost of copying the plans, several days have gone by; and we still have not received any plans as of this writing. I am surprised that it would take more than three days to run blue lines of the grading plan, but, be that as it may, we still do not have them and the August 12 deadline for submitting comments is coming on fast. Under these circumstances, therefore, I would respectfully request that the Society ;be granted a minimum of 30-day extension of time to submit its comments on Draft EIR 566.

Actually, I think the proper thing to do in light of the fact that the grading plans have not been available for public review at *any* time during the 45-day comment period for Draft EIR 566 is to circulate a *new* public notice setting a *new* deadline for submitting comments on the Draft EIR. The new time period for submitting comments should not start running until the grading plans are made available for public review at the County.

Response

Please refer to Response to Comment SFC-1 and the letter from Mr. Tom Mathews, Director, County of Orange Planning and the Development Services Department, to Mr. Edmond N Connor, dated August 12, 1997 (Appendix B). The letter explains that although the grading application (960048) is the initiating activity which resulted in the determination that DEIR 566 be prepared, the County's CEQA action will consider all of the components of the proposed project. In addition, the letter indicates that the DEIR contains sufficient detailed grading and geotechnical information which meets standard County practices for a planning decision. Due to the special interest of the Vedanta Society, the County agreed to respond to comments from the Vedanta Society provided they were received no later than 4:00pm on August 22, 1997.

CCBG-2

Comment

What should *also* be made available for review and copying at the County is the soils engineer's geotechnical review and copying at the County is the soils engineer's geotechnical review of the 40-scale grading plans which the Orange County Grading Code requires be submitted *before* any grading permit can be issued. Indeed, without the soils "specs" providing details regarding proposed buttresses, shear keys, back cuts, etc., it is difficult to understand the grading plans. Moreover, it is virtually *impossible* to assess feasible mitigation measures for known geotechnical hazards without having access to the grading plan review prepared by the soils engineer of record.

Please let me know whether the grading plan review by G.A. Nicoll & Associates is available for public review and copying. As ;you may be aware, Draft EIR 566 specifically states that a grading plan review will be prepared "to accompany the grading permit application." (See Appendix D, p. 4, paragraph 4.) If, as I suspect, Nicoll's grading plan review is *not* available for review and copying, then this would be yet another reason for re-noticing the public comment period on Draft EIR 566. In fact, if the grading plan review has not been prepared or is unavailable for public review, this would raise serious questions as to the legal adequacy of Draft EIR 566.

Response

Please refer to response to comment CCBG-1.

CCBG-3

Comment

I do not wish to criticize the County for what appears to have been a problem created by the developer in not making critical documents available for review, but the fact remains that neither the Society, nor any other "interested party" or member of the public, has been dealt a "fair hand" in being required to submit comments on Draft EIR 566 without being allowed reasonable and timely access to the documents which are the "very heart and soul" of the grading permit application, i.e., the grading plans and the grading plan review. I would greatly appreciate it if your office would rectify this problem by (1) making copies of the grading plans and the grading plan review available for public review at the County as soon as possible and (2) providing public notice to all interested persons that a new 45-day time period to submit comments on Draft EIR 566 has been established. If your office is not inclined to provide all members of the public with such an extension of time, then, at the minimum, I would ask that the Society be provided with the 30-day extension which I have requested.

As a final note, I would ask that my name and address be placed on whatever public notice lists area being maintained by the County in connection with the Saddleback Meadows project and any planning approvals and matters relating thereto. Please add me as an "interested party" on all mailing lists so that I can receive public notice, information, and reports regarding any and all aspects of the Saddleback Meadows property or project. Thank you for your courtesy and cooperation in this regard.

Response

Please refer to comment CCBG-2.

COMMENTS AND RESPONSES - THE GAS COMPANY, August 7, 1997

TGC-1

Comment

This letter is not to be interpreted as a contractual commitment to serve the proposed project, but only an information service. Its intent is to notify you that the Southern California Gas Company has facilities in the area where the above named project is proposed. Gas service to the project could be served from an existing main as shown on the attached atlas sheet without any significant impact on the environment. The service will be in accordance with the company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.

The availability of natural gas service as set forth in this letter, is based upon present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under the jurisdiction of federal regulatory agencies. Should these agencies take any action which affects gas supply or the condition under which service is available, gas service will be provided in accordance with revised conditions.

Residential (System Area Average) Yearly

Single-family	750 therms/year/dwelling unit
Multi-family units	475 therms/year/dwelling unit

These averages are based on total gas consumption in residential units served by Southern California Gas Company and it should not be implied that any particular home, apartment or tract or homes will use these amounts of energy.

We have developed several programs which are available, upon request, to provide assistance in selecting the most energy; efficient appliances or systems for a particular project. If you desire further information on any of our energy programs, please contact this office at 1(800)427-2000, for assistance

Response

Section 4.13 of the DEIR, beginning on page 4-223, contains an evaluation of the impact of the proposed project on existing utilities and service systems, including natural gas. The ability of The Gas Company to serve the proposed project, based on current conditions and regulatory policy is noted.

COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN, LLP.
Edmond M. Connor, August 8, 1997

CCBG.2-1

Comment

This will confirm this afternoon's telephone conversation during which you kindly agreed to provide my client, the Vedanta Society of Southern California (the "Society") with an extension of time, to and including next Friday, August 15, 1997, within which to submit comments on Draft EIR 566. You explained that you had consulted with John Buzas and had concluded that, since various County personnel were unavailable to make a final decision on the requests set forth in my August 6 letter to Messrs. Brantley and Greiman, a three-day extension of time seemed to be an appropriate "stop-gap" remedy under the circumstances.

I understand that, when the appropriate personnel are available at the county next week, I will receive a definitive answer to the requests set forth in my August 6 letter. I certainly appreciate receiving the three-day extension, but my firm and the Society's geotechnical consultants still need more time to review the grading plans and the grading plan review before any of us will be in a position to submit comments on Draft EIR 566. Although the public review provisions of CEQA and the State CEQA Guidelines would suggest that we should not have been required to do so, we have already been compelled to make separate arrangements with, and to pay money to the developer's agent to obtain the right to review the grading plans for which a grading permit is being sought.

However, even if we were willing to pay additional money for the right to gain access to the grading plan review by the soils engineer of record, we could not do so because that report has not even been completed as of this date. Of course, Appendix D to Draft EIR 566 expressly states that a geotechnical review of 40-scale grading plans will be prepared to accompany the grading permit application, but, for whatever reason, the grading plan review has not been finalized and is not available for any member of the public to even see it, much less study it in detail. That really puts the Society, and all other members of the public, at a tremendous disadvantage in being able to adequately comment on the Draft EIR.

Response

Please refer to response to comment SFC-1.

CCBG.2-2

Comment

As I explained to you in my earlier phone message, section 15146 of the State CEQA Guidelines requires that the degree of specificity to be found in Draft EIR 566 must be commensurate with the stage of development that is being evaluated. in other words, since the construction of grading improvements is being analyzed in conjunction with a grading

permit application, the *specific* details of the grading, and the impacts and mitigation measures associated therewith, must be addressed in the Draft EIR. Moreover, under section 15147 of the CEQA Guidelines, all technical data, maps, plans, etc, which are necessary to make a "full assessment" of the environmental impacts of the project must be set forth in the appendices to the Draft EIR, and such appendices "shall be *readily available* for public examination." (Emphasis added.)

The California courts have not hesitated to enforce the above requirements by striking down EIRs which have omitted important technical information, even if the information was found to be available from other sources. As stated by; our own Fourth District Court of Appeal, "whatever is required to be considered in an EIR *must be in that formal report*; what any official might have known from other writings or oral presentations cannot supply what is lacking *in the report." (See, Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d.818,831; *San Joaguin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713,727.)

As the above authorities indicate, both the grading plans and grading plan review should have been (10 set forth in the Appendices to Draft EIR 566 and (2) readily available to all members of the public during the entire 45-day comment period. Since the County will not issue any grading permit to the developer without the grading plans and the grading plan review having been approved by County staff, these documents should not have been *excluded* from the CEQA review process However, since these documents were, in fact, omitted form Draft EIR 566 and have been available at the County for public review, I think it only fair that the county take quick action to correct these problems.

My proposal would be that the County request the developer to (1) complete the grading plans and the grading plan review and submit them to County staff as soon as possible and (2) revise Draft EIR 566 to not only include these documents as part of the Appendices, but also to adequately address them in Volume I of the EIR. Once the grading plans and grading plan review have been make "readily available" for public review, then a new 45-day period for submitting comments on Draft EIR 566 should be re-noticed.

Again, I apologize for burdening you with this issue in Ben de Mayo's absence, but I sincerely believe, Nick, that fundamental fairness, not to mention the strict dictates of the State CEQA Guidelines, requires the County to remedy the problems which have occurred as a result of the grading plans and grading plan review not having been available for public review prior to the expiration of the comment period on Draft EIR 566. The problems are easily corrected as I have suggested above, and I hope the County will do just that. Thank you for your courtesy and cooperation in doing what you can to make that a reality.

Response

Please refer to response to comment CCBG-1.

COMMENTS AND RESPONSES - U.S. FISH & WILDLIFE SERVICE
Gail C. Kobvetich, Field Supervisor, USFWS, Ron Rempel, NCCP Program Manager, California Department of Fish and Game, August 8, 1997

USFWS-1

Comment

The U.S. Fish and Wildlife Service (Service) and California Department of Fish and Game (Department) Natural Community conservation Planning (NCCP) program staffs (i.e., "the Wildlife Agencies") have reviewed the above DSEIR. The project is located within the Southern Subregion Orange County NCCP Planning Area, near the border with the NCCP Central Subregion. The preferred project proposed the phased development of 705 manufactured, single-family residential units on a 222.9-acre site near the intersection of El Toro Road and Live Oak Canyon Road, impacting a total of about 191 acres on site and 20 acres off site. About 14% of the project site is proposed to reamin as open space.

Biological resources on site include about 65 acres of coastal sage scrub (CSS), 14 acres of oak woodland, and about four acres of wetland vegetation communities. The federally endagered Riverside fairy shrimp *(Streptocephalus woottoni)* is known to occur whithin at least seven wetlands (identified in the DSEIR as "ephemeral ponds") spread throughout the site. Several plant and animal species considered sensitive by the Wildlife Agencies occur (e.g., cactus wren *[Camphylorhynchus brunneicapillus]*) or may occur. The coastal California gnatcatcher (Polloptila californica californica) here after "gnatcatcher", a federally threatended species, is likely to occur on site based on the presence of CSS and gnatcatcher-occupied CSS in surrounding areas. The Quino checkerspot butterfly (Euphydras editha quino), a federally endangered species, may occur as well.

Response

Comment noted. The comment reiterates information contained in the DEIR. No response is required.

USFWS-2

Comment

Along with the No Project/No Development Alternative ("Alternative 1") required by the California Environmental Quality Act (CEQA), there are four other alternatives presented in the DSEIR. Alternative '1' would avoid any adverse environmental impacts to the project site. Alternative '2' proposes 150 housing units with a minimum lot size of 20,000 feet, disturbing more than 138 acres. this would result in elimination of oak woodlands, CSS, and ephemeral ponds of which some rare and sensitive species are obligate residents. Noise decigbel levels would increase and possiblyu affect wildlife in adjacent O'Neill regional Park. Alternative '3' proposes 100 single family units on a 31.7 acre portion of the site. This alternative avoids about 191 acres of habitat, therby appearing to allow connection between open space areas

north, south, and east of the project site. However, this project laternative will impact two ephemeral ponds and CSS habitat. Alternative '4' proposes 299 housing units, distrubing abourt 165 acres. A wildlife corridor, narrowing to 400 feet in width and going up a nearly vertical slope, is proposed to be bisected by a road. Alternative '5' proposed 318 housing units within a development area of 113 acres, leaving about 100 acres in open space. the wildlife corridor would be the same as for Alternative '4' except that the minimum width would be about 700 feet. The proposed project appears to conflict with the earlier-adopted Foothill-Trabuco and Aliso Creek Corridor Specific Plans and also fails to describe adequate project design for maintaining corridor integrity of the Orange County NCCP Reserves. In evaluating alternatives 2-5, Alternative '3' would have the least environmental impact, but would nonetheless, substantially impact wildlife corridor integrity between subregional NCCP reserve areas in Orange County.

Response

Comment noted. The comment reiterates information contained in the DEIR relating to alternatives and their effect on biological resources and wildlife movement. No response is required.

USFWS-3

Comment

The Wildlife Agencies have formally commented at different stages of the proposed project. We have also met with the project applicant and their consultants, including a meeting at the project site on May 20, 1996. On June 29, 1994, the Service wrote aletter stating that project approval must be deferred until the Southern Subregiona NCCP was finalized. In 1996, both agencies commented on the DEIR (No. 561). The Service letter stated that the location of this development within and adjacent to occupied habitat of rare species could compromise the NCCP reserve and its ability to function as a wildlife corridor through the direct and indirect impact of habitat destruction, fragmentation, noise, and lighting. Our comments were based upon a project alternative, similar to Alternative four, which provided more open space than the proposed preferred alternative presented in this DSEIR.

In general, the DSEIR does not adequately describe the biological resources of the project area. The document only describes and anlyzes impacts of the different alternatives in a superficial manner. Referring to our joint Wildlife Agency letter of January 30, 1997, responding to the Notice of Preparation, at least eight of our requested infomation items were completely or partially ignored, without explanation. Available data were not identified.. Further, the Initial Study (p. 17) states that the scope of the EIR discussion will provide a "detailed discussion" and "[A] re-inventory of the existing unique, sensitive ... flora and fauna within the project site..." Also to be provided was "[A} detailed analysis of the project's impacts to wildlife movement, including mitigation measures to avoid or reduce those imacts." Neither of these items was adequately accomplished.

Response

Individual letters were received from both the California Department of Fish and Game and the U.S. Fish and Wildlife Services on the previous DEIR (561) on March 25, 1996. DEIR 566 incorporates DEIR 561 by reference, including the analysis of alternatives. DEIR contains an in-depth analysis of the effect of the proposed project and a range of alternatives on biological resources and wildlife movement. As promulgated by the CEQA Statute and the CEQA Guidelines, the level of detail of analysis of identified alternatives in the DEIR is more cursory than for the proposed project. Section 3.2 of the DEIR, on page 3-8 outlines the unique characteristics of a recorded tract map and the inability to alter physical design features of the recorded tract map to mitigate impacts. Section 4.7.3 of the DEIR, beginning on page 4-143, documents the unavoidable adverse impacts associated with the proposed project, with mitigation measures outlined in Section 4.7.6 of the DEIR, beginning on page 4-137. Unavoidable adverse impacts, following the implementation of identified mitigation measures, are listed on page 4-154. Certification of the Final EIR will require preparation of a Statement of Overriding Considerations.

USFWS-4

Comment

The Wildlife Agencies offer the following specific information and recommendations to assist the County and the project applicant in planning for the preservation of sensitive wildlife species, habitats, and wildlife corridors within the proposed project area, and as a meanms to assist you in complying with pertinent statutes. Page numbers refer to the DSEIR unless otherwise noted.

1-1, paragraph 2 and 4-41, paragraph 4. Both of these statements should read as "affect."

Response

The comment is noted. Please see Correction and Additions to the DEIR, contained in Section II.

USFWS-5

Comment

4-41, exhibits 21, 22, 53. Interference with existing hydrology on site is shown with the construction of the preferred alternative. Impacts to "ephemeral ponds" not directly within the project footprint would also occur. Analyze these impacts further.

Response

A detailed analysis of project related impacts to onsite habitat, including ephemeral ponds, is contained in Section 4.7.3, beginning on page 4-143 of the DEIR. In addition, a detailed

analysis of project related impacts to hydrology is contained in Section 4.3 of the DEIR, beginning on page 4-33 of the DEIR.

USFWS-6

Comment

4-43, last paragraph. The Wildlife Agencies disagree with the conclusions that there would be "... no unavoidable adverse impacts to surface or groundwater hydrology" and the water quality impacts would be "... to less than significant levels" since current hydrological conditions support the existence of these areas. Implementation of the preferred alternative, including alteration of drainage patterns, would result in the direct loss of a minimum of seven ephemeral ponds on site.

Response

Surface and groundwater hydrology and water quality are evaluated in detail in Section 4.3 of the DEIR. Historical research has determined that the onsite ephemeral ponds were artificially created to support cattle grazing activities and are not directly dependant on surface or groundwater hydrology. The DEIR states, in Section 4.7.3 on page 4-145, that 0.6 acres of the 0.8 acres of ponds, or 7 of the 8 ephemeral ponds, would be directly impacted by implementation of the proposed project.

USFWS- 7

Comment

4-110. The noise impact analysis is cursory and needs to refer to appropriate literature attributing impact to avian populations due to noise. Also, in the cases of "major airport runways" the analysis is biased by not considering adjacent land use changes in the context of the distribution of the coastal California gnatcatcher.

Response

As stated in the noise analysis, in Section 4.6 of the DEIR, noise levels in the vicinity of the project are not expected to appreciably increase as a result of project implementation. Typical noise increases within 100 feet of major highways are calculated to be 1 decibel. In addition, the conversion of MCAS El Toro to a civilian airport would result in reduced noise contours as compared to those shown in the DSEIR on Page 4-105. Earlier surveys prepared for DEIR 561, did not identify any gnatcatchers onsite.

USFWS-8

Comment

4-119, paragraph 2. There was no Service protocol for presence/absence of gnatcatchers in 1993 and 1994.

Response

The comment relating to gnatcatcher survey protocol is incorrect. Gnatcatcher surveys were conducted in 1993 and 1994 to applicable survey protocol in place at the time of the actual survey. These surveys did not identify any gnatcatchers onsite. Paragraph 2 on page 4-119 clearly states that additional surveys for gnatcatchers have not been conducted to current USFWS protocol, which were not established until May, 1997. Gnatcatcher surveys are required prior to the issuance of any grading permit. See Section II, Corrections and Additions to the DEIR in this Document.

USFWS-9

Comment

4-122, exhibit 50. Western spadefoot toad *(Scaphiopus hammondi)* is identified in the exhibit (and on page 4-137) as occurring on site; however, the discussion about amphibians on page 4-126 states that "[N]o amphibians were observed during the surveys of the site." Correct this discrepancy.

Response

The comment is correct and acknowledged. The Western spadefoot toad was observed onsite in two of the ephemeral ponds. Please see Section II of this document, Corrections and Additions to the DEIR.

USFWS-10

Comment

4-123, paragraph 2. Add that the NCCP refers to the Southern Orange County Subregion to distinguish this planning effort from other ongoing and completed efforts.

Response

The comment is noted. A discussion of the southern Orange County subregion will be incorporated into the discussion of the NCCP. Please refer to Section II of this document, Corrections and Additions to the DEIR.

USFWS-11

Comment

4-125, "Ephemeral Ponds." The Wildlife Agencies disagree with the assertion that "all of the ephemeral ponds were artificially created a number of years ago..." Given the geological conditions of frequent landslides in the area, these wetlands could have been "slump" or "slope" ponds that underwent human modification at a later time. These types of wetlands

are known in both Orange and San Diego counties. Further information is needed in the DSEIR regarding the origin of these wetlands in the context of the proposed impacts.

As identified by Marie Simovich, Ph.D., a consultant for the former applicant, some of the on site wetlands contain a high diversity of aquatic invertebrates, strongly suggestive of the normal nautral origin of these wetlands. Known to occur in at least some ponds with Riverside fairy shrimp and western spadefoot are cladocerans (e.g., e.g., *Daphnia*, 2 or 3 species likely), copepods, ostracods (seed shrimp), and clam shrimp (*Cyzicus californicus)*. Clam shrimp have a restricted distrubtion in coastal southern California. Further information is needed in the DSEIR regarding aquatic invertebrates in the context of the proposed impacts.

Response

Please see response to comment number USFWS-6. The ephemeral ponds have been located on the project site for many years, and used as a water supply associated with livestock grazing. Please refer to the discussion of ephemeral ponds on Page 4-125 of the DEIR.

USFWS-12

Comment

4-126, Invertebrates, last sentence. the DSEIR states that "[H]undreds of additional invertebrates are expected to use the site." No date are provided to support this statement. The Wildlife Agencies presume that this statement refers to the expected number of species, not the number of individuals. Please qualify and support the statement.

Response

Please refer to Appendix H of the DEIR for a discussion and listing of onsite identified invertebrates. The "Hundreds" statement refers to the number of invertebrate species expected to occur onsite, although not completely quantifiable.

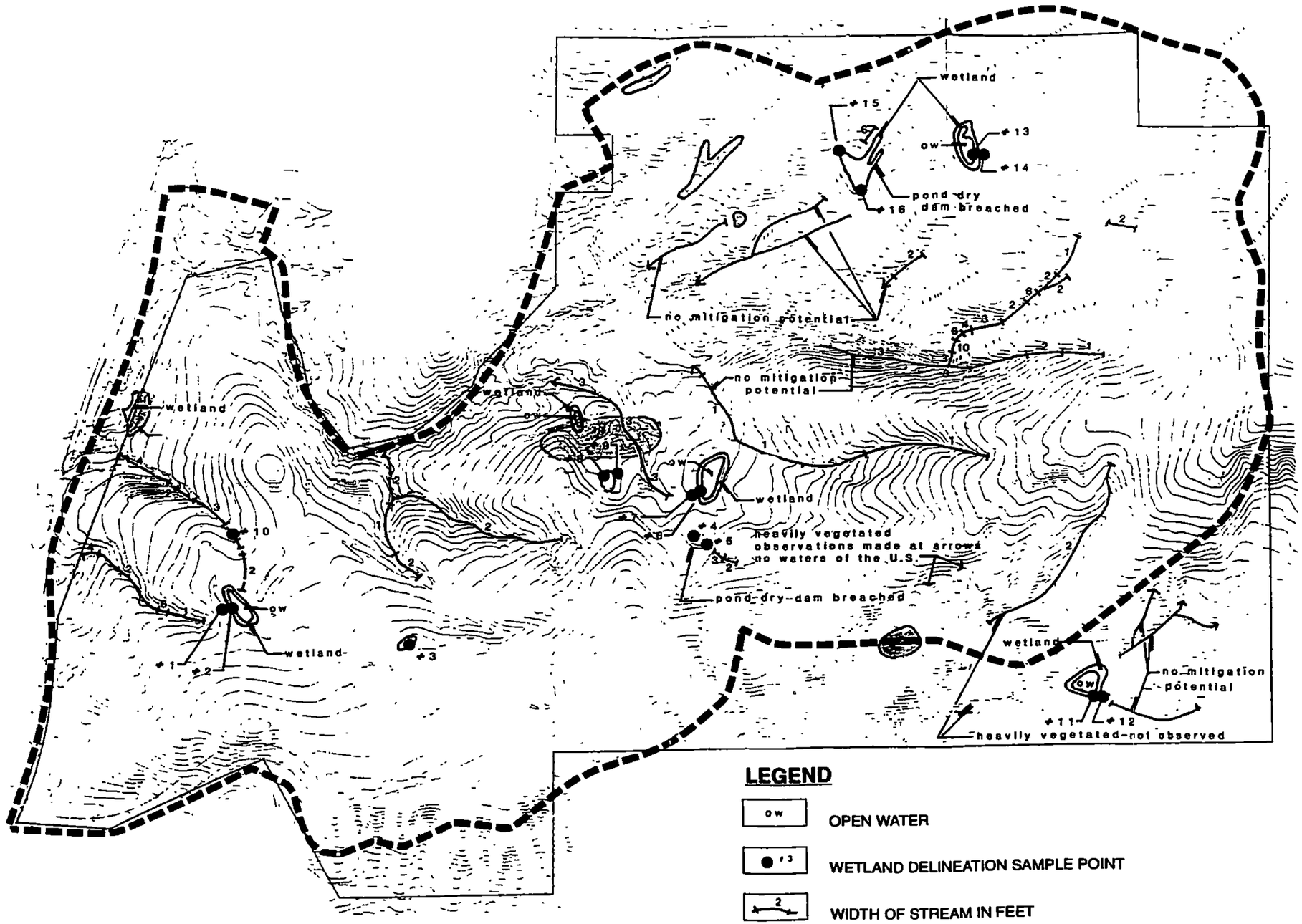
USFWS-13

Comment

4-126, Amphibians. The last sentence erroneously implies that the distribution of amphibians is restricted to steep slopes. No data are provided to support this statement. The likely widespread distribution on stie of western spadefoot toad, Pacific tgreefrog (*Hyla regilla*), and western toad (*Bufo boreas*) needs to be noted and discussed. Please revise the discussion.

Response

The comment is acknowledged. The DEIR text is hereby revised to reflect this comment.



LEGEND

- ow — OPEN WATER
- ● #3 — WETLAND DELINEATION SAMPLE POINT
- 2 — WIDTH OF STREAM IN FEET
- LIMIT OF REMEDIAL GRADING

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION
County of Orange P&DS
Scale: 1"=400'
Source: Sweetwater Environmental Biologists, Inc.

N

Jurisdictional Wetlands and Waters of the United States

EXHIBIT No. 53

Please see Section II of this document, Corrections and Additions to the DEIR.

USFWS-14

Comment

4-126, Reptiles. The correct name is the orange-throated whiptail lizard. Please correct this name throughout the document (e.g., 4-138, -147).

Response

The comment is correct and acknowledged and hereby incorporated into the DEIR. Please refer to Section II of this document, Corrections and Additions to the DEIR.

USFWS-15

Comment

4-130, paragraph 1. The DSEIR states that the "[Southern] subregion will incorporate public lands of the Cleveland National Forest (CNF)." We suggest that this statement be removed or properly qualified since no additinal conservation benefits would occur unless the U.S. Forest Service (USFS) is a signatory to an NCCP agreement. The USFS is not participating in the Orange County Central/Coastal NCCP and has not indicated that it wishes to be a "participating landowner" in the Southern Subregion. The DSEIR should not presume that future CNF managment activities will be compatible with an NCCP.

Response

The comment is noted. The referenced statement pertaining to the Cleveland National Forest was intended to indicate the availability of habitat for NCCP and other related species. Please see Section II of this document, Corrections and Additions to the DEIR.

USFWS-16

Comment

4-130, paragraph 2. The DSEIR states that the gnatcatcher is not found onsite. Surveys to current Service protocol were not done. The last gnatcatcher surveys were done in 1994. Surveys should be conducted according the Service protocol ot determine the baseline status for the species. The results of these surveys will be needed to assess impacts, including the number of gnatcatchers subject to "take," in accordance with the Intra-Service Biological Opinion for the 4(d) rule.

Response

The comment restates information contained within the DEIR. As part of the County of

Orange approval process for Grading Application 960048, conditions of approval will be developed which will require the completion of current gnatcatcher surveys, conducted to current USFWS protocol, prior to the issuance of a grading permit. Please refer to Section II, Corrections and Additions to the DEIR, for an additional mitigation measure which requires the gnatcatcher survey prior to the issuance of a grading permit.

USFWS-17

Comment

4-130, paragraph 3. The correct name is the Central-Coastal Subregion.

Response

The comment is noted and the correction is hereby incorporated into the DEIR. Please refer to Section II of this document, Corrections and Additions to the DEIR.

USFWS-18

Comment

4-130, paragraph 4. The DSEIR refers to the "disturbed nature of the site" in the context of fulfilling wildlife corridor "needs in the area." No additional information is provided to support this assertion. The existing landscape linkages and documented presence of mountain lion (*Felis concolor*), mule deer (*Odocoileus hemionus*), and coyote (*Canis latrans*), all of which would use a wildlife corridor within the project area, needs to be noted and discussed. Mountain lion movement through the area was not disclosed in the DSEIR. This study was undertaken by Paul Beier, Ph.D. and reported in the scientific literature. For further explanation of our request that these data be disclosed and discussed in the context of this proposed project, refer to item number eight in our joint wildlife agency letter of January 30, 1997.

Response

The statement in the DEIR relating to the disturbed nature of the site is correct and is discussed in detail in Sections 3.0 and 4.0 of the document. The statement in the DEIR indicates that the listed onsite conditions contribute to the conclusion that an onsite wildlife movement corridor would not *entirely fulfill wildlife corridor needs in the area.* However, it should be noted that EIR No. 553 for the Central-Coastal Subregional Natural Communities Conservation Planning (NCCP)/Habitat Conservation Plan (HCP) which was certified by the Orange County Board of Supervisors on April 16, 1996 identifies the area in the vicinity of the project site as one of the two primary wildlife linkages connecting the Central-Coastal NCCP/HCP and South NCCP study area (See Exhibit No. 11 attached).

In addition, the working group for the South Subregional NCCP program, which includes the project biological consultants, California Department of Fish and Game, U.S. Fish and

Wildlife Service, and others, has determined that the Saddleback Meadows site and surrounding vacant lands in their existing condition are extremely important in providing regional wildlife movement and use connections to the Central subarea of the Central-Coastal NCCP/HCP. This determination was based largely on mountain lion studies conducted by Dr. Paul Beier and large mammal studies conducted by Doug Padley for the Foothill-Trabuco Specific Plan together with the fact that the proposed project area is located immediately adjacent to the Central-Coastal reserve system within the Aliso Creek Corridor portion of whiting Ranch Regional Park and the Southern California Edison parcel. These areas were included in the reserve system to ensure that regional connectivity is maintained between the two subregions.

USFWS-19

Comment

4-131, exhibit 51. This exhibit is difficult to interpret since it was originally a color map of larger size. For example, gnatcatchers and cactus wrens are noted in the legend but are invisible on the exhibit. We suggest that the exhibit be redone to show only relevant information.

Response

Exhibit 51, entitled *Proposed NCCP Southern Subregional Planning* Area, depicts the boundary of the planning area and several biological features related to the NCCP Planning effort. The scale of the exhibit does not allow every detail to be shown in an 11x17 format.

USFWS-20

Comment

4-133, paragraph 3. The DSEIR says that "The fragmented nature of much of the coastal sage scrub onsite makes it low quality." However, the current gnatcatcher status is unknown and most wildlife surveys were out of date, having been conducted in 1993 and 1994. The paragraph continues by stating that the steep slopes support the highest diversity of animal species, but no data are provided to support this statement.

Response

The statement in the DEIR is correct. The highest quality and least fragmented coastal sage scrub plant communities, and the highest CSS related animal species diversity, are located on the steepest portions of the project site. The DEIR includes mitigation measures which require updated gnatcatcher surveys to be completed prior to the issuance of any grading permit.

USFWS-21

Comment

4-133, paragraph 3. The site also contains a habitat linkage, also qualifying it as at least "intermediate value" according the Evaluation Logic Flow Chart.

Response

The comment restates information contained within the DEIR. No response necessary.

USFWS-22

Comment

4-136, exhibit 53. One pond identified as a "potential mitigation area" is in the project footprint of the preferred alternative, as shown on exhibits 18 and 22. Since this area would be under housing and infrastructure and no longer in its present condition, please correct this discrepancy.

Response

The limit of development line shown in exhibit 53, in the vicinity of the subject pond, is shown in the wrong location. Exhibit 7, Site Plan shows the correct relationship of the proposed grading limits to the pond proposed for preservation. Please see Corrections and Additions to the DEIR, revised Exhibit 53.

USFWS-23

Comment

4-137, paragraph 3. The western spadefoot toad is a California State Species of Concern.

Response

The comment is noted. Please refer to Section II of this document, Corrections and Additions to the DEIR.

USFWS-24

Comment

4-137, -139, and -148 state that the site "must be considered occupied by gnatcatcher until proven otherwise." This is inconsistent with the statement on 4-130 that the gnatcatcher is not found on site. Correct and clarify this discussion.

Response

The statement is correct, given the fact that current gnatcatcher surveys have not been conducted in accordance with USFWS protocol. The onsite habitat must be considered occupied, until such time as a current survey, conducted to USFWS protocol standards prove otherwise. The statement indicating that no gnatcatchers have been identified onsite refers to the surveys completed in 1993 and 1994. The DEIR also contains a mitigation measure which requires an updated gnatcather survey and compliance with any protocol conditions prior to the issuance of any grading permit. Please see Section II of this document, Corrections and Additions to the DEIR.

USFWS-25

Comment

4-139. The distribution information for the gnatcatcher is incomplete. The species occurs in portions of Ventura, eastern Los Angeles, and San Bernardino Counties. The assertion regarding limited slope characteristics is not valid. Gnatcatchers occur on steep slopes, using them for nesting, foraging, and movement.

Response

The comment is noted. Please see Section II of this document, Corrections and Additions to the DEIR. The DEIR contains mitigation measures which require updated gnatcather surveys prior to the issuance of any grading permit.

USFWS-26

Comment

4-140. The wildlife agencies disagree that focused surveys for the Quino checkerspot butterfly are not warranted. The limited surveys accomplished do not support the assertion that the probability of occurrence is "low." Appropriate habitat (CSS, chaparral, and grassland) exists within the project site. Surveys consistent with the Service 1997 protocol should be completed.

Response

Required surveys for the Quino checkerspot butterfly, conducted to USFWS protocol are acknowledged, and will be conditioned as a requirement prior to issuance of a grading permit. Please see Section II of this document, Corrections and Additions to the DEIR.

USFWS-27

Comment

4-141. The correct scientific name for the northern harrier is *Circus cyaneus*. It is properly referred to as a raptor. The accepted common name for *Agelaius tricolor* is the tricolored blackbird. The "C2 (category two)" category was discontinued by the Service in February 1996. The gnatcatcher is a California State Species of Concern.

Response

The comments are noted. Please refer to Section II of the document, Corrections and Additions to the DEIR.

USFWS-28

Comment

4-144. There is no analysis of connectivity loss in this discussion of the project in relation to the NCCP Findings. However, 4-148 states that "[T]he project, as currently proposed, may hinder or preclude the preparation of the southern subregional preserve [sic], due to restricted wildlife movement." Further on page 4-130, paragraph 3 it says, "the project site occupies a linkage area between the Central and Southern NCCP Subregional preserves [sic], where a wildlife corridor is needed." Please clarify and further analyze this crucial issue. We suggest explanatory text with an exhibit or exhibits specifically rendered.

Response

The comment is noted. Project related impacts to wildlife movement and connectivity are discussed throughout Section 4.7 of the DEIR. The statement listed on page 4-144 of the DEIR pertaining to connectivity is part of a listing of NCCP findings that must be satisfied prior to allowance of interim take of coastal sage scrub habitat. This information has been provided in the DEIR to outline requirements in the event that interim take is required. Impacts to wildlife movement have been identified as unavoidable adverse impacts in the DEIR.

USFWS-29

4-145, "Ephemeral Ponds." The use of acreage by itself is inappropriate since it does not sufficiently disclose the impacts of the preferred alternative. The wildlife agencies suggest that the number of ponds also be used as a measure of impact. From the diagrams in the DSEIR, it appears that seven of the eight ponds identified as supporting Riverside fairy shrimp would be directly within the project footprint. The other pond would be subject to edge effects and adverse impacts to water quality. This impact is not apparent when only the acreage figure is considered.

Response

The comment is noted. Please see response to USFWS-6. Impacts to ephemeral ponds have been identified in the DEIR as unavoidable and adverse.

USFWS-30

Comment

4-147, Western spadefoot toad. The DSEIR states that the population is small in size. However, no data are provided to support his statement such as the results of a scientifically valid population survey. In the absence of data, we suggest that the statement be eliminated.

Response

Previous onsite surveys have found that the Western spadefoot toad is of limited distribution and population size.

USFWS-31

Comment

4-148, Wildlife Movement. The statement "It can not [sic] be assumed that wildlife would be able to move through the project site..." should be further explained. Further explanation is needed since it is known that there would be the virtual elimination of wildlife and their movements in a high density residential development as the preferred alternative proposes.

Response

The referenced statement backs up the statement that implementation of the project site would directly impact wildlife movement. Even though some wildlife may move through the proposed project, without a recognizable wildlife movement corridor, it cannot be assumed that any wildlife will move thorough the proposed project. Due to the physical design of the proposed project. Wildlife movement impacts have been cited in the DEIR as unavoidable adverse impacts.

USFWS-32

Comment

4-151, -152, Conceptual Mitigation Program. The last sentence on 4-151 states that the program was developed based on input from the wildlife agencies. Regarding the mitigation ratios presented, the DSEIR provides no rationale to support these ratios. Further, the position of the Wildlife Agencies is that the ratios are unjustified and inappropriately low in relation to the proposed impacts, given other mitigation agreements.

Response

The mitigation ratios are have been based upon the level of impact to habitat types, the relative quality of onsite habitat and other similar mitigation projects in the vicinity of the proposed project. It should be noted that any habitat mitigation requirement will need to be accomplished offsite, due to the recorded nature of the tract map.

USFWS-33

Comment

6-3, table 39. The "no project" alternative states that there would be a continuation of

grazing impacts. Include that this is a discretionary landowner activity, otherwise unrelated to the proposed project.

Response

The No Project alternative is included in compliance with CEQA Statutes and Guidelines. Implementation of the No Project alternative, assumes that the project site would continue to exist in its current condition, open space utilized for livestock grazing.

USFWS-34

Comment

6-4, paragraph 1. The DSEIR states that "[o]going degradation of onsite biological resources related to cattle grazing operations would continue to occur." This degradation should be further described. For example, on our May 20, 1996 site visit, Wildlife Agency representatives observed cattle within some of the onsite wetlands. We also observed apparently free-ranging horses nearby. Further discussion of the presence of livestock and horses is needed in relation to impacts to Riverside fairy shrimp, other invertebrate species, and CSS. Crushing of fairy shrimp "cysts" and adverse changes to water quality are likely to occur within ponds subject to use by cows and horses. Literature references showing CSS impacts due to grazing should also be referred to and discusses.

Response

Livestock grazing has been ongoing onsite for several decades, and the current condition of onsite vegetation is directly related to this ongoing activity. Onsite ephemeral ponds have also been in place for several decades and are a direct result of livestock grazing activities. These conditions are discussed in Sections 2.0. 3.0 and 4.7 of DEIR 566.

USFWS-35

Comment

6-4, and continuing. The discussion of biological resources impacts is cursory, allowing extremely limited comparison opportunity among the alternatives. A detailed matrix chart of alternatives versus type and amount of habitat impact (e.g., CSS, Riverside fairy shrimp) would help to synthesize the data. However, it appears that alternative three, the 100 unit alternative on 32 acres, would directly avoid seven of the eight ponds occupied by Riverside fairy shrimp, most of the loss of CSS habitat, as well as minimize impacts to wildlife movement.

Response

DEIR 566 assumes worst case scenarios with regard to biological resources although the document relies upon previous surveys, i.e. 1993 and 1994, the DEIR assumes the presence of various species habitat on the project site. Impact analysis contained within the Alternatives Section of the DEIR, is less detailed than for the analysis of the proposed project, and along with the detailed site plans provided for each alternative, allows for a specific comparison of biological impacts The comment relating to Alternative three is correct and is acknowledged.

USFWS-36

Comment

8-1. The Inventory of Unavoidable Adverse Impacts should include the amount of CSS loss and the likely "take" of gnatcatchers.

Response

The discussion on Page 8-1 of the DEIR, includes the direct loss of coastal sage scrub. Please see response to comment USFWS-24, and Section II of this document, Corrections and Additions to the DEIR.

USFWS-37

Comment

Appendix C, Notice of Preparation (NOP), page 3. Note that our joint Wildlife Agency NOP commented about "plant/Animal Life."

Response

The comment has been noted.

USFWS-38

Comment

Appendices D (conceptual Wetland Mitigation Plan) and E (Conceptual Upland Mitigation Plan) were missing from Appendix "H", the Biological resources Assessment prepared by Sweetwater Environmental Biologists, Inc. The Assessment is a draft, dated March 20, 1997. If an updated version is available, include it in the revised DSEIR.

Response

Appendix H does not include a Conceptual Wetlands Mitigation Plan or a conceptual Upland Mitigation Plan. These documents were associated with the project evaluated in DEIR 561.

USFWS-39

Comment

In conclusion, the DSEIR is inadequate. Major revisions and additions are needed, including completion of updated field surveys and a literature search. for example, the gnatcatcher discussion should include a description and analysis of the regional distribution of CSS, gnatcatcher, and cactus wrens, in relation to the project area. Vegetation maps and species locations in both digitized and hardcover format are available from the County of Orange.

The Wildlife Agencies anticipate that the issues discussed above will be included and addressed in any additional CEQA documents and be presented to the Wildlife Agencies for review and comment. Until the impact assessment and mitigation recommendations are revised to respond to our concerns, the Wildlife Agencies recommend against certification of the DSEIR as currently proposed.

Response

Please see response to comments USFWS-1 through USFWS-38.

USFWS-40

Comment

The Wildlife Agencies appreciate working with the County on NCCP conservation planning issues. Lands within the proposed project area are important in conservation planning for the Southern Subregion NCCP Reserve in Orange County. An improperly implemented project would permanently destroy the integrity of the linkage between the Subregional reserves. If you have any questions or comments please contact Liam H. Davis, NCCP Associate Wildlife Biologist (Department) at 619-467-4207 or Robert Hames, Fish and Wildlife Biologist (Service) at 760-431-9440.

Response

The comment is noted. Please see response to comments USFWS-1 through USFWS-38.

COMMENTS AND RESPONSES - CITY OF MISSION VIEJO
Karen Steele Verlaan, Senior Planner, August 11, 1996

CMV-1

Comment

The City of Mission Viejo is in receipt of the subject Draft EIR and understands the project as proposed to consist of phased development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure, on a 222.23 acre site on the easterly site of El Toro Road in the unincorporated territory of the County of Orange. The gross residential density is 3.17 dwelling units per acre, with minimum lot sizes of 2,630 square feet. Fourteen (14%) percent of the project site is proposed to remain in undisturbed, natural open space and 57.6% of the site will remain in total open space. In addition to the residential component, the project also proposed eight private park sites, regional riding/hiking trail connections, and a construction of a water tank site dedicated to and accepted b, the Trabuco Canyon Water District. Project implementation requires approval of grading plan. The grading permit application (GA960048), the project subject of this Draft Environmental Impact Report, is based on Tract 10692, which was recorded December 16, 1988.

The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor Specific Plan, and is located approximately one-half mile south of the El Toro Road/Live Oak Canyon Road intersection. Implementation of the proposed project would directly effect 191.39 acres of the project site, including remedial grading and fuel modification requirements and 19.77 acres offsite, for a total impact area of 211.16 acres.

A total of 2.6 million cubic yards of conventional grading and 8.9 million cubic yards of remedial grading would be required to implement the project.

Response

The comment is noted and restates information contained within the DEIR. No response is required.

CMV-2

Comment

The City of Mission Viejo has the following comments on DEIR 566 for the Saddleback Meadows Project:

General Comments
The city of Mission Viejo is concerned with the numerous unavoidable adverse impacts of the subject project These impacts are as follows:

1. Gross land use compatibility with (1) O'Neill regional Park, (2) the Ramakrishna Monastery;, and (3) St. Michael's Abbey;

2. Major landform alteration /modification including cut and fill slopes up to 120 ft. in height;

3. Loss of 154.13 acres of onsite habitat and reduction of native habitats and sensitive and non-sensitive species dependent on those habitats, including (1) southern sycamore woodland, (2) coast live oak woodland, (3) coastal sage scrub, (4) mulefat scrub, and (5) ephemeral ponds;

4. Project and cumulative contribution to regional adverse air quality conditions, since the project is located in a non-attainment area with incremental increase in air pollution as a result of vehicle emissions;

5. Increased traffic and urban activity resulting in increased noise in the area:

6. Loss of Riverside fairy shrimp habitat (ephemeral ponds) and individuals, a federally listed endangered species; and

7. Urban landform visual impacts to (1) O'Neill Regional Park, (2) Ramakrishna Monastery, and (3) St. Michael's Abbey.

Response

The comment is noted and restates impact information quantified and analyzed in the DEIR. Please refer to Section 8.0 of the DEIR, Inventory of Unavoidable Adverse Impacts.

CMV-3

Comment

Transportation Comments

1. DEIR Transportation Analysis:
There appears to be a major discrepancy in the Draft EIR's discussion and analysis of the transportation/circulation impacts resulting from the proposed project. This discrepancy needs to be reconciled and corrected in a revised Draft EIR document.

As background, transportation/circulation impacts are summarized and presented in Volume 1 of Draft EIR 566. The basis of the Volume 1 discussion is stated to be a project-specific traffic study that is referenced and included in Volume 3 of Draft EIR: Appendix F.

Volume 1 states that the proposed project will generate 6,220 trip ends per day, with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. In contrast, the traffic study appendix states that the proposed ;project will generate

8,340 trip-ends per day, with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour. This represents a difference of (1) more that thirty percent on a daily basis; (2) more than fifty percent for the AM peak hour analysis; and (3) thirty percent for the PM peak hour analysis.

This inconsistency is carried forth into the specific tables and exhibits of the respective document, where average Daily Traffic forecasts from Existing through Year 2000 to buildout differ between the two documents. For example, page 4-56 of Volume 1 states that the project ADT's along El Toro Road in the vicinity of the site do not exceed 30,000 vehicles per day. However, the traffic study in Appendix F Volume 3, identified that segments of El Toro Road do exceed 30,000 trips per day easterly of the Foothill Transportation Corridor.

Also, even though there is inconsistency between the two volumes on reported ADT and peak hour trips, the Intersection Capacity Utilization (ICU) and Levels of Service (LOS) calculations seem to be similar between the two documents. A Revised Draft EIR needs to explain which trip generation was used for the ICU Levels of Service calculations, and the DEIR analysis needs to be carefully reviewed to accurately present the transportation impacts of the proposed ;project. In particular, the City of Mission Viejo will be reviewing the specific impact of project trips on the El Toro Road/Glenn Ranch Road intersection and the Marguerite Parkway/El Toro Road intersection, to determine any potential impacts and require any mitigation to maintain a Level Service "D" performance standard, as required by the Measure M Growth Management Program.

Response

The comment is noted. During the preparation of the DEIR, numerous meetings were held between the County of Orange, Traffic Engineering Division and the project applicant to discuss the trip generation rate for manufactured housing, since it is not a standardized land use resulting in a typical trip generation factor. The statement in Section 4.4.3 of the DEIR, on Page 4-52, under *Traffic Impact Modeling* is a typographical error, based on an outdated generation rate, and should read as follows: *The proposed project is projected to generate approximately 8,340 trip-ends per day with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour.* Please refer to Section II of this document, Corrections and Additions to the DEIR. All other traffic impact assessment data is consistent with the actual technical traffic study contained in Appendix F of the DEIR.

CMV-4

Comment

2. Project Trip Generation:

The project traffic study identifies a residential trip distribution assumption wherein twenty-five percent of the daily traffic would enter/leave the project site using El Toro Road north of the project entrance, and twenty percent continuing along Santiago Canyon Road. The city of Mission Viejo believes this assignment is high. Please clarify the land uses that exist or are proposed north of the project site that would cause one-quarter of the project daily trips to

use this segment of El Toro Road, versus using El Toro Road south of the project site to access freeways, major highways, and public facilities. A review of the Draft EIR school assumptions, for example, shows that school attendance is programmed for facilities located in Mission Viejo, Rancho Santa Margarita, and Trabuco Canyon.

The assumptions used in the project trip distribution would have a resultant impact on analyzed intersections south of the project entrance to El Toro Road, and in particular would increase Intersection Capacity Utilization (ICU) calculations if a greater percentage of project trips were assigned southerly along El Toro Road.

Response

The distribution of project related traffic generation onto the surrounding circulation system is based on a variety of factors including existing travel patterns near residential areas and has been reviewed and approved by the County of Orange, Traffic Engineering Division. As this is a planning document the distribution is of necessity and the study assumes that the majority of traffic will be oriented to the south/west of the site.

CMV-5

Comment

3. El Toro Road:
El Toro Road is classified as a Major Arterial Highway on the Orange County Master Plan of Arterial Highways (MPAH). A Major Arterial is defined as a six-lane highway with a divided median. The City of Mission Viejo is currently preparing improvement plans to construct El Toro Road to its master plan configuration of a *six-lane, Major Arterial facility*

Although not specifically stated, the Draft EIR seems to indicate that El Toro Road should be reclassified from a six-lane facility to a four-lane facility, The City of Mission Viejo offers the following comments:

a. The reclassification of El Toro Road from a six-lane Major Arterial to a four-lane Primary Arterial requires the County of Orange to process and MPAH amendment, with the amendment ultimately being approved by the Orange County Transportation Authority (OCTA) board of directors.

It is the City's understanding that such an amendment has not yet been filed with OCTA. Please clarify how the timing of the El Toro Road MPAH reclassification, if proposed by the County of Orange, juxtaposes with the approval of Saddleback Meadows project application(s). Since the DEIR serves as an environmental assessment for the Saddleback Meadows recorded tract map, please clarify whether the right-of-way for El Toro Road has already been reserved for an ultimate six-lane or four-lane facility.

b. The OCTA MPAH guidance manual identified that a multi-jurisdictional, cooperative process will be pursued with any MPAH amendment that affects more than one jurisdiction.

In conjunction with that process, technical data will be prepared and reviewed by Growth Management Area (GMA) forums to determine whether there is consensus on the proposed amendment. Also in conjunction with that process, and environmental assessment of the MPAH amendment must be completed.

Recognizing that the Saddleback Meadows DEIR is being processed in advance of a requested MPAH amendment, a multi-jurisdictional consensus of the El Toro Road reclassification has not yet been achieved. Technical issues may surface through the MPAH cooperative study process that have not yet been identified in the Saddleback Meadows DEIR. Further, inconsistencies on project daily traffic volumes are already present in the Draft EIR. The City of Mission Viejo recommends that the transportation analysis in the Saddleback Meadows DEIR should *not* serve as the environmental documentation for the MPAH reclassification of El Toro Road, unless agreed to by representatives of the cooperative study process

c. The City of Mission Viejo continues to retain El Toro Road, within its jurisdictional boundaries, as a six-lane Major Arterial facility. The jurisdictional boundary between the City of Mission Viejo and the County of Orange generally lies immediately east of the Glenn Ranch Road intersection at El Toro Road.

Response

Year 2020 projected traffic conditions, with the implementation of all circulation system improvements outlined in the DEIR, indicate that El Toro Road, widened to four through travel lanes north of the Foothill Transportation Corridor would result in all intersections with El Toro Road operating at level of service D or better. It is understood that redesignation of El Toro Road from a Major Arterial (6 lanes) to a Primary Arterial (4 lanes) requires an amendment to the MPAH. This amendment has not been filed by the County to date. Certification of this EIR as well will not preclude the ability to construct El Toro Road to its MPAH designation

CMV-6

Comment

4. Glenn Ranch Road/El Toro Road Intersection Improvements:
In reviewing the Intersection Capacity Utilization (ICU) projections for the Glenn Ranch Road/El Toro Road intersection, the City of Mission Viejo is concerned that the Glenn Ranch Road/El Toro Road intersection could become a bottleneck as one transitions, north to south, from a four-lane facility to a six-lane facility. This intersection must be guaranteed for maximum feasible improvement to insure that Level of Service "D" performance standard is maintained, in compliance with Measure M Growth Management Program requirements.

The County of Orange will need to be an active participant in the maximum feasible improvement to the Glenn Ranch Road intersection, since:

a. The DEIR identifies that seventy-percent (75%) of the project trips will use this intersection, and the intersection will experience Levels of Service F sometime between Year 2000 and Year 2020 performance unless roadway improvements are appropriately phased. The timing of El Toro Road improvements is important because the project traffic study identifies that El Toro Road can remain a two-lane facility through project build-out.

b. The County of Orange will be deeded a 7.710 acre parcel for open space purposes from the Mission Viejo Company. This parcel (a portion of Parcel 4 of PM 89-115) is located south of El Toro Road and immediately west of the Glenn Ranch Road intersection (see attached Exhibit). The City of Mission Viejo will require that appropriate rights-of-way be secured along the open space parcel frontage to achieve a major arterial cross-section and intersection improvements to Glenn Ranch Road that meet projected traffic demand.

Response

The comment is noted.

CMV-7

Comment

5. El Toro Road Mitigation Measure AM4-16:
Mitigation Measure AM4-16 states that "north of the Foothill Transportation Corridor, El Toro Road can accommodate projected traffic volumes with the proposed project on four travel lanes divided by a raised to striped median. Implementation of a full Major Arterial cross-section is not needed to serve future traffic volumes. This alternative section represents a modification of the typical cross-section for a Primary Arterial. Appropriate transitions would be required between this cross-section and other modified cross-sections along El Toro Road south of Glenn Ranch Road."

As identified above, the City of Mission Viejo is improving El Toro Road as a six-lane facility from the FTC to Glenn Ranch Road, consistent with its MPAH arterial designation. The City of Mission Viejo recommends that Mitigation Measure AM4-16 include reference that the City of Mission Viejo review and participate in the County of Orange's development if improvement plans for El Toro Road, to insure that:

- El Toro Road is phased and constructed to achieve a roadway cross-section that effectively transitions to the proposed interim two-lane facility;

- El Toro Road can transition from a six-lane facility in the City of Mission Viejo to a four-lane facility in county unincorporated area, while achieving a Level of Service "D" performance standard at the Glenn Ranch Road/El Toro Road intersection through Year 2020.

Response

Please refer to response CMV-5. Additionally, improvement plans which are adjacent to City boundaries will be forwarded to the City for review and comment.

CMV-8

Comments

6. Inventory of Assumed Circulation Improvements:
The project traffic study--Appendix F--identified a Year 2020 scenario in which levels of service at a City of Mission Viejo intersection is projected at Level of Service "F" Marguerite Parkway at El Toro Road. The city's performance standard is Level of Service "D".

The Draft EIR should be revised to include a mitigation measure that requires the applicant to assess, calculate and provide a fair-share contribution to transportation/circulation improvements at all impacted City of Mission Viejo intersections.

In addition, the County of Orange proposed, thorough this project (DEIR), the Year 2020 improvement program of northbound dual right turn lanes at the Marguerite Parkway (NS)/El Toro Road (EW) intersection. This proposed improvement is not acceptable to the City of Mission viejo. The City of Mission Viejo does not have any intersection with dual right-turn lanes, and recommends that the Draft EIR analyze an alternative improvement program that will mitigate the Level of Service "F" condition.

Response

The proposed project will be conditioned to contribute to several roadway fee programs as outlined in Table 12 on Page 4-51 of the DEIR. Total road impact fees amount to $ 8,044 per dwelling unit and $8.34 per square foot of commercial land use.

Dual right turn lanes at the intersection of El Toro Road and Marguerite Parkway is an acceptable mitigation to mitigate unacceptable turning movement volumes and related intersection level of service values. Other mitigation measures, which would result in similar mitigation of adverse turning movement volumes and intersection level of service values include the addition of a free right turn lane and/or application of emerging intersection signalization control technologies.

CMV-9

Comment

This concludes the City of Mission Viejo comments on the Saddleback Meadows Project Draft Environmental Impact Report (DEIR 566). The City of Mission Viejo is also reviewing the June 1997 Draft EIR No. 565 for Live Oak Plaza Project. As a result of our technical review of the Draft EIR, the City may raise additional comments or request clarification on

certain issues such as transportation and other areas where there may be inconsistencies in findings or analyses. Thank you for the opportunity to comment on the document. The City would like Response to Comments on the DEIR as soon as they are available.

Response

The comment is noted. The City of Mission Viejo will be provided with a copy of the Response to Comments document in accordance with CEQA requirements.

COMMENTS AND RESPONSES - BOWIE, ARNESON, KADI, WILES & GIANNONE, August 11, 1997

BAKWG-1

The Trabuco Canyon Water District is in receipt of the above-referenced Draft Subsequent Environmental Impact Report (the "DEIR") prepared in regard to the Saddleback Meadows Recorded Tract Map No. 10692, Grading Application GA960048 (the "Project"). Our firm represents the District as general legal counsel. The District, having reviewed the DEIR, and having consulted with us, has requested our firm to provide your office with the comments set forth herein It is the District's understanding that the Project will involve the phased development of 705 manufactured single family residential units and a 1.7 acre neighborhood commercial center on a 222.23 acre site. This seems to correspond, generally, to the final tract map (Tract 10692) approved by the County of Orange (the "County") on 1988. However, the District has not been provided with updates of the plans for the Project and, as such, all of the comments submitted with this letter should be interpreted in that light.

The purpose of this letter is to provide to the County, on behalf of the District, various comments and matters relating to the Project, the potential impacts of the Project on the facilities of the District and the District's requested mitigation measure.

Response

The comment indicates that Bowie, Arneson, Kadi, Wiles & Giannone represents the Trabuco Canyon Water District relative to providing comments on DEIR 566. No response is necessary.

BAKWG-2

Comment

Request for Notices

Pursuant to the provisions of the California Environmental Quality Act ("CEQA") and Public Resources Code Section 21092.2, the District hereby requests that copies of all notices and other documents mailed in relation to the above-referenced Project (specifically including, but not limited to, environmental review notices) be furnished both to the District and the undersigned. If there are any fees and charges required for the provision of such notice(s), please provide our office with an invoice for such costs and we will reimburse the appropriate County department. This request for notice specifically includes, but is not necessarily limited to, notices of all hearings, proposed actions to be taken with regard to the development process and, in particular, any Notice of Determination prepared, furnished or filed with regard to this Project.

Response

The comment is noted. Bowie, Arneson, Fadi, Wiles & Giannone has been added to DEIR 566 mailing list.

BAKWG-3

Comment

Background Information

We have reviewed various referenced to the Trabuco Canyon Water District, and the District's water and wastewater (sewer) facilities contained within the DEIR. In regard to such matters, we would note the following additional facts which are important for a full and complete understanding of the District's background in providing the comments set forth below. The DEIR correctly notes that two improvement agreements were entered into between the prior owner of the property and District dated September 21, 1988 (see further discussion below). It is relevant to note that in connection with those improvement agreements two performance bonds were posted in order to secure the construction of the relevant water and sewer facilities a s required by the terms of those agreements.

The DEIR correctly notes that the District's Capital Improvement Charges ("CICs"), based on 705 residential units, were paid to the District. Those Capital Improvement Charges are levied as part of the District's master financial and facilities planning. Funds from the CICs were expended on various District-wide and master planned facilities is order to be able to furnish water service and water capacity to the property within Tract 10692 (the "Property").

Wastewater (sewer) treatment capacity was purchased in the Santa Margarita Water District ("SMWD") Chiquita Wastewater Treatment System by way of a pass-through payment made by the former property owner to the District and then paid to SMWD. It should be noted that the SMWD Chiquita Wastewater Treatment System is owned and operated by SMWD, and not TCWD. Specified wastewater treatment capacity (based on 705 residential units) was paid for in the Chiquita system and is now available to provide wastewater treatment service for the Property. The major wastewater trunk sewer and downstream lift station facilities were financed for the benefit Property by means of assessment district proceedings pursuant to the relevant provisions of the California Streets and Highways Code. Assessment district No. 5R of the Trabuco Canyon Water District is currently in place and levies assessments on the Property (as well as other properties within the boundaries of the Assessment District). The major trunk sewer and downstream lift station facilities financed through the Assessment District proceedings (and bonds issued by Assessment District No. 5R secured through the levy of assessments) have been constructed. These are available to provide service to the property based on 705 residential units. However, the related facilities for this Property, identified in the improvement agreements, were not finance and have not been constructed as of this date.

As noted above, the District entered into onsite and master plan improvement agreements

relative to the Property (collectively the "Improvement Agreements"). copies of the Improvement Agreements are attached to this letter as Attachments "A" and "B" and incorporated herein by this reference. The Improvement Agreements were entered into pursuant to TCWD's Rules and Regulations which require improvement agreements to be entered into before the District will authorize, or sign off on, any tract map. Correspondingly, TCWD's approval of Tract Map No. 10692 was expressly conditioned on the terms and conditions of the Improvement Agreements. The Improvement Agreements were subsequently assigned, with the District's consent, to a subsequent owner of the Property.

Subsequently, the prior owner of the Property (to whom the Improvement Agreements had been assigned) filed for bankruptcy with the Federal Bankruptcy Court. As a result of prolonged bankruptcy proceedings, the Improvement Agreements, and the corresponding performance bonds, were rejected by the debtor and this action was apparently sustained in the bankruptcy court. Corresponding, the Improvement Agreements are now ;of questionable enforceability and the performance bonds have lapsed. Any building or District service assumptions based on the terms of those Improvement Agreements, or dependent on them, are thus suspect until new agreements with the District are reached. In this regard we would specifically note that the District's Rules and Regulations (see Government Code Section 31024) require improvement agreements to be into in order for the District to approve tract maps and for the District to provide water and wastewater service to any property within its boundaries. The District previously requested of California Quartet (the then-property owner) to undertake negotiations relative to entering into new improvement agreements relative to the Property No response to those entreaties has been received by the District.

Response

The comment relating to the Chiquita Canyon Wastewater Treatment System being owned by the Santa Margarita Water District is acknowledged. It should be noted that the Chiquita Canyon Wastewater Treatment Plant has been constructed and has been operational for several years. Please refer to Corrections and Additions to the DEIR, contained in Section II of this document. The applicability and enforceability of existing improvement agreements between Trabuco Canyon Water District and the applicant are not applicable to a discussion of the environmental effects of the proposed project.

BAKWG-4

Comment

Water Distribution Facilities

As referenced above, the District has undertaken construction and completion of various master plan facilities in order to provide adequate water and water capacity to the Property. As noted, the District's Capital Improvement Charges were previously paid and satisfied in the identified amount. District master plan facilities have been sized based on the Property including 705 residential units. However, the District would note that it has not been provided with current improvement plant and therefore cannot state, at this time, that all

necessary water capacity for non-residential and irrigation needs is available. A re-evaluation of the Project, form an engineering perspective, by the District would be appropriate before definitive plans are finalized.

Also noted above, the Improvement Agreements relative to both master plan and in-tract water distribution facilities, including, but not limited, the water booster station identified in the DEIR, have lapsed and security for those agreements was rejected by action of the bankruptcy court. The specific facilities necessary in order to provide water transportation and distribution service within the boundaries of the Property were identified in those two (2) Improvement Agreements and are specifically enumerated in the improvement plans which were filed with the District and in the cost breakdowns which are included as part of the master plan agreement exhibits. Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the water transportation and distribution facilities necessary in order to provide water service to the Property are designed, constructed, installed, funded and dedicated to the District as required under the District's Rules and Regulations and the previous improvement plans, the District will not be able to undertake to provide water service to the Property. The inability of the District to provide water transportation and distribution within the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated. Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to water transportation and distribution facilities, the following mitigation measures be added to the DEIR:

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreement(s) with the District to provide for the design, construction, installation, funding and dedication of all necessary master plan and in-tract water transportation and distribution facilities (Specifically including, but not limited to, a water booster station) as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692; and

2. Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed, at its cost and expense, all design construction, installation, funding and dedication of master plan and in tract water transportation and distribution facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692.

Response

The referenced mitigation measures which are contractually required by the previous improvement agreements are reaffirmed as mitigation measures and hereby incorporated into DEIR 566. Please refer to Section II, Corrections and Additions to the DEIR.

BAKWG-5

Comment

The comments with regard to water distribution facilities, above, are generally applicable relative to water storage facilities in the context of the District. Water storage facilities are important for the reasons of reserve water capacity, cost efficiency, fire fighting, emergency supply and system balancing.

Pursuant to determinations by the District's Board of Director, and the Rules and Regulations of the District, developers of property within the District's boundaries are required to either build and dedicate water storage facilities according the District's Rules and Regulations and standard specifications in order to provide stated levels of water storage capacity for the respective development or required to pay In-Lieu Water Storage Capacity Fees. Under the previous Improvement Agreements it was anticipated that the developer (the applicant) would in fact be building and dedicating water storage facilities to the District rather than pay the District's In-Lieu Water Storage Fee(s). It appears, based upon the description in the DEIR, that this is still intended.

On Page 3-9 of the DEIR it is indicated that the water storage tank will be constructed by the District. This is fact not the case. The prior Improvement Agreements and the District's Rules and Regulations, specify that master plan and in-tract facilities (including water storage facilities) which are to be constructed in order to service new development within the District are required to be constructed at the cost and expense of the applicant and in accordance with specified construction requirements, including, but not limited to, the District's standard specifications.

Also noted above, the Improvement Agreements relative to both master plan and in-tract water storage facilities, including, but not limited, the water reservoir identified in the DEIR, have lapsed and security for those agreement s was rejected by operation of the bankruptcy court. The specific facilities necessary in order to provide water service within the boundaries of the Property were identified in those two (2) Improvement Agreements and are specifically enumerated in the improvements plans which were filed with the District and in the cost breakdowns which are include as part of the master plan agreement exhibits. Correspondingly, unless the ;Improvement Agreement are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the water storage facilities necessary in order to provide water service to the Property are designed constructed, installed, funded and dedicated to the District as required under the District's Rules and Regulations and the previous Improvement Plans, the District will not be able to undertake to provide water service to the Property. The inability of the District to provide adequate water storage with regard to the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated. Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to water storage facilities, the following mitigation measures be added to the DEIR:

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreements(s) with the District to provide for the design, construction, installation, funding and dedication of all necessary master plan and in-tract water storage facilities or, alternatively, pay the District's In-Lieu Water Storage Fees, as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692; and

2. Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed, at its cost and expense, all design, construction, installation, funding and dedication of master plan and in-tract water storage facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692.

Response

Please refer to response to comment BAKWC-3 The referenced mitigation measures which are contractually required by the previous improvement agreements are reaffirmed as mitigation measures and hereby incorporated into DEIR 566. Please refer to Section II, Corrections and Additions to the DEIR.

BAKWG-6

Comment

Wastewater (Sewer) Facilities

The comments relative to alter distribution facilities, in the context of the Improvement Agreements, are generally applicable to wastewater (sewer) facilities relative to the District. The existence and operational readiness of wastewater collection, transportation and treatment facilities is necessary to satisfy health and safety requirements of occupancy of development in California.

As noted above, wastewater treatment capacity has been purchased in the SMWD Chiquita Waster Water Treatment Facilities. The major wastewater trunk sewer and downstream lift station facilities for the Property have been financed and constructed. However, certain in-tract and master plan wastewater collection and transportation facilities, identified in the Improvement Agreements, and in the improvement plans filed with the District, have not yet been constructed. In this regard, the District would reference the previously approved improvement plans and the exhibits to the Improvement Agreements.

As also noted above, the Improvement Agreements relative to both master plan and in-tract wastewater facilities have lapsed and security for those agreements was rejected by operation of the bankruptcy court. Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the wastewater facilities necessary in order to provide wastewater service

to the Property are designed, constructed, installed, funded and dedicated to the District as required under the District' Rules and Regulations and the previous Improvement Plans, the District will not be able to undertake to provide wastewater service to the Property. The inability of the District to provide adequate wastewater service with regard to the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated. Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to wastewater facilities, the following mitigation measures be added to the DEIR:

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreement(s) within the District to provide for the design, construction, installation, funding and dedication of all necessary master plan in-tract wastewater facilities as require under the District's Rules and Regulations and the tract map approval for Tract No. 10692; and

2. Pursuant to the aforementioned improvement agreements(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed at its cost and expense, all design, construction, installation, funding and dedication of master plan in-tract wastewater facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692.

Response

Please refer to response to comment BAKWG-3. The referenced mitigation measures which are contractually required by the previous improvement agreements are reaffirmed as mitigation measures and hereby incorporated into DEIR 566 Please refer to Section II, Corrections and Additions to the DEIR.

BAKWG-7

Comment

Financing of Water and Wastewater Facilities

Previously, the district undertook discussions with prior property owners relative to potentially providing financing for water and waste water facilities which needed to be constructed for the benefit of the Property;. These financing were separate and apart from the assessment district financing referenced above. In this regard it was previously proposed to use financing under the Mello-Roos Community Facilities Act of 1982, as amended (the "Act"). However, previous developers did not pursue this means of financing. The District Continues to be willing to discuss financing options relative to the water and wastewater facilities, but believes that the previous proceedings undertaken pursuant to the Act are most likely not viable for application to the current facilities at this time.

In regard to the Improvement Agreements the District notes that certain dollar figures of the construction of the facilities were provided in the exhibits and the referenced performance

bonds. the District would note that nearly a decade has passed since these agreements were signed and as such, the cost to design, construct, install and dedicate the water and wastewater facilities, each as referenced above, is probably significantly increased from the figures previously used. Adequate financing for water and wastewater facilities should be secured in order to ensure that they will be designed, constructed, installed and dedicated to the District in a timely manner relative to the developmental process.

Response

Please refer to response to comment BAKWG-3.

BAKWG-8

Comment

Master Plan Update

The District would note that it is currently in the process of reviewing its Master Plan water and wastewater facilities. This may also have consequences for the District's overall financing master plan. the engineering review and evaluation of the District's Master Plan may result in some reevaluation of engineering presumptions and system requirements. At this time the District is still in the early stages of planning its Master Plan review and as such cannot provide definitive information as to any changes or reevaluations that may occur as a result of this process. However, the District notes that this matter, inasmuch as, if the planning and development process for the Project is significantly delayed, additional information and figures may become available from the District.

Response

The comment is noted. Any additional information available from the Trabuco Canyon Water District will be incorporated into DEIR 566 to the extent feasible.

BAKWG-9

Comment

Conclusion

In light of the foregoing, the District notes that the Project has the potential to impact the infrastructure facilities and systems of the District. Such mitigation are principally related to the availability of facilities, their construction, installation, dedication and acceptance prior to occupancy of any development on the property and related matters. Such potential impacts can be mitigated by way of the above suggested mitigation measures. Provided that such mitigation measures are undertaken the District has no objection to the Project. However, the District specifically notes that a failure to provide the above-requested mitigation measures could result in an adverse environmental impact(s) as a result of the Project. In

such case, the District reserves its rights to protest the proceedings pursuant to Public Resources Code Section 21177 and to undertake all other legal remedies available to do it.

The District specifically requests that the County of Orange, including the County Environmentally and Project Management Services Department Carefully review the above-referenced comments and that those comments be considered as part of the environmental process for the Project.

If you have any questions regarding this matter, please do not hesitate to contact our offices. We would be pleased to provide you with any additional information you may require.

Response

The comment is noted. Please refer to response to comment BAKWG-1 through BAKWG-8.

COMMENTS AND RESPONSES - THE ORANGE COUNTY TRANSPORTATION AUTHORITY (OCTA)/Ben Jarvis, Associate Transportation Analyst, August 11, 1997

OCTA-1

Comment

The Orange County Transportation Authority (OCTA) has reviewed the Saddleback Meadows Recorded Tract Map 10692, Grading Application GA960048. OCTA has no comments at this time.

We appreciate the opportunity to provide input on this project. If you have further questions or need additional information, please call me at 714/560-5786.

Response

The comment is noted No response is required.

COMMENTS AND RESPONSES - Kimberly A. Stocking, August 11, 1997

KAS-1

Comment

I am submitting this letter to comment on the proposed 705 unit mobile home park on the Saddleback Meadows stie. Not long ago approval was being sought for 318 houses on this site. Why it was not passed I don't understand. Now we are having to deal with the thought of an extremely large number of mobile homes in our very secluded and tranquil area. I was in favor of the 318 homes and even toured the site when they opened it to the public last year to show what they were proposing. Believe me my first choice would be to leave it untouched and unbuilt so we could continue to view the beautiful hillside of our rural area. But if something must be built lets have it be fewer homes with a much more aesthetic appearance that fits into the already existing areas surrounding it. Also, my concern is if 705 units are brought on-site where are all these children going to go to school? Portola Hills Elementary is already at full capacity and measures have had to be taken to accommodate its student load.

I will be following the developments and can only pray that the Planning and Development Service Department along with the County Supervisors will make fair and knowledgeable decisions regarding this 222-acre rural canyon site.

Response

Please refer to Section 3.0 (Project Description) in DSEIR 566 for a complete discussion of the project description. School impacts are evaluated in Section 4.12 of the DEIR. Please also refer to response to comment SVUSD-1.

COMMENTS AND RESPONSES - TPG MANAGEMENT, H. Pike Oliver, August 12, 1997

TPG-1

Comment

On behalf of the project applicant, California Quartet, Ltd., we submit the following comments on Draft Subsequent Environmental Impact Report No. 566, Saddleback Meadows Recorded Tract Map 10692, Grading Application GA 960048, prepared by Urban Vision for the Orange County Planning & Development Services Department.

Our review of Subsequent EIR 566 reveals that the project description should be supplemented to better satisfy provisions of the California Environmental Quality Act. We find it deficient in at least two respects: (1) it fails to discuss economic characteristics and supporting public service facilities relating to the project site; and, (2) it fails to reference the County Board of Supervisors recent (October 1996) failure and/or refusal to approve a reduced density project alternative in lieu of Recorded Tract Map 10692.

Please note that CEQA Guidelines Section 15124 provides that a project description "shall contain" [a] general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities."

We consider Subsequent EIR 566 to be deficient because the project description on pages 3-1 through 3-2 fails to discuss certain significant economic characteristics of Tract Map 10692; and does not consider the supporting public service facilities for the project site paid for by California Quartet or its predecessors-in-interest. These economic characteristics and involved supporting public service facilities are discussed below.

When Tract Map 10692 was recorded in December of 1988, several contractual commitments were entered into by the predecessors-in-interest of California Quartet. These contractual commitments resulted in monies being expended for the construction of capital facilities, including a sewer treatment facility and related trunk lines that serve both Saddleback Meadows and its general vicinity.

One of the conditions of approval for Tentative Tract Map 10692 (Special Condition No. 22.), was that "[p]rior to recordation of each final map ... sewage treatment and disposal facilities will be available to serve all dwelling units. To facilitate this requirement, several subdivision improvement agreements were entered into prior to the recordation of the Final Map.

Response

The comment is noted. The DEIR does document both the supporting public facilities relating to the project site and the County Board of Supervisors recent denial of a 318-unit

residential alternative, as evaluated by DEIR 561. Section 3.2 of the DEIR, on Page 3-1, references the previously recorded tract map and lists all of the improvement plans that have been completed and undertaken associated with recordation of tract map no. 10692. In addition, detailed public facilities information ins contained within Section 4.13 of the DEIR, commencing on Page 4-233. Section 3.2 of the DEIR, beginning on page 3-2, states: *The project site can be presently services by sewer lines and treatment capacity predicated on the density authorized by Recorded Tract map 10692.*

Specific information pertaining to the recent County Board of Supervisors denial of the 318 unit proposal evaluated by DEIR 561 is contained in Section 3.2 of the DEIR, beginning on Page 3-2. The DEIR text states: *It is noted in DEIR 561 that though the 318 unit project was identified as "environmentally superior,* to the 705-unit project currently being proposed, the 318-unit proposal was denied. In addition, Table 3, on page 2-6 of the DEIR states: *October 22, 1996 - Board of Supervisors denied project and did not certify DEIR 561.*

TPG-2

Comment

The two subdivision improvement agreements relating to Master Plan Facilities and Onsite Water and Sewer Facilities for Tract Map 10692 were entered into between the Santa Ana Mountains County Water District, now known as the "Trabuco Canyon Water District" (the "District"), and Southmark Pacific Corporation ("Southmark"), a predecessor-in-interest to California Quartet. One of these agreements executed on September 21, 1988 between Southmark and the District is entitled "Agreement for Designing Construction of Master Plan Facilities, Tract No. 10692" ("MPFA"). The "RECITALS" portion of that agreement, regulations, required Master Plan Water and Sewer Improvements for the Property prior to providing water and sewer service. The second subdivision agreement, entitled "Agreement for Construction of Onsite Water and Sewer Facilities, Tract No. 10692" ["Onsite Water and Sewer Facilities Agreement" ("OWSFA")], also executed on September 21, 1988 between Southmark and the District, required the construction and dedication of water and sewer facilities by the subdivider prior to the District's agreement to provide water and sewer service to the final tract. Tract Map 10692 provided a zoning capacity density of 715 equivalent dwelling units ("EDUs").

Response

The comment is noted and is here incorporated into DEIR 566

TPG-3

Comment

In February 1989, California Quartet's predecessor-in-interest paid $973,528.58 for the purchase of sewer treatment capacity rights for the project site in the District's Chiquita

Wastewater System Facilities (the "Chiquita Facilities"). These funds were used by the District to enlarge the Chiquita Facilities to accommodate the 715 EDUs zoned for the property. Thus, California Quartet, as a successor-in-interest, succeeded to all rights and liabilities flowing from the Tentative Tract conditions and subsequent above-described agreements for the purchase of sewer treatment capacity in the Chiquita Facilities for the benefit of the authorized development density of the property.

Additionally, California Quartet's predecessor-in-interest was required to pay the District's Capital Improvement Charges ("CICs"). The District's CICs in effect then were $1,265.00 for each equivalent dwelling unit. The CICs for 715 dwelling units totaled $904,475.00. The District's CICs were, and are, imposed on all development within the District in accordance with the District's Master Plan, including the Water and Wastewater Master Plan, the Financial Plan and the District's Impact Fee Structure. The CICs that were paid were deposited in the District's fund and earmarked for capital improvement of water facilities, which have subsequently been constructed.

Response

The comment is noted. The issue of fee payments is beyond the scope of the DEIR.

TPG-4

Comment

It should also be noted that California Quartet is required to pay an annual sewer/water assessment on each of Saddleback Meadows 705 legal lots. This assessment appears on individual property tax bills and totals $60,000 to $75,000 per year for the entire property. California Quartet has been making these assessment payments and paying its tax liability since the 1994-1995 tax year and has not been delinquent on any of these payments. In addition, California Quartet has paid (May 1997) all back taxes, assessments and penalties owed by its predecessor-in interest (approximately ± $1,025,000). Further, California Quartet's predecessor-in-interest made good faith payments for premiums on security and improvement bonds (with a face amount over $9,147,700) for improvements on the Property, in reliance on, and as a condition of the Tract Map 10692.

In sum, the project description should be supplemented as it presently fails to disclose that California Quartet, as a consequence of Tract Map 10692 approval, made substantial expenditures for water and sewage capacity and construction of capital facilities, and entered into contractual obligations to develop the property consistent with the authorized density of Tract Map 10692.

Response

The comment is noted. The issue of fee payments is beyond the scope of the DEIR.

TPG-5

Comment

Further, the County Board of Supervisors at the public hearing on October 22, 1996 on Zone Change Case No. 95-5 and Area Plan Case No. 95-7 failed to approve any of the project alternatives discussed in proposed FEIR No. 561, including Alternative No. 4, the 100 unit alternative. The project description also is inadequate because it fails to disclose this action, which indicates that the Board did not approve any of the nine reduced density alternatives to Tract Map 10692 that were analyzed in FEIR 561.

Response

The project description for DEIR 566 is not required to specifically discuss alternatives evaluated by a previous EIR, and their disposition as the result of project related public hearings. However, it should be noted, as documented in response to comment TPG-1, that DEIR does document Board of Supervisors actions relating to the proposed project and alternatives evaluated in DEIR 561.

TPG-6

Comment

Based on the above, to remedy deficiencies in the project description, subsequent EIR 566 must be revised and supplemented with more detail concerning the economic characteristics of, and public service facilities for, Tract Map 10692 and the Board's decision to reject all reduced density alternatives in lieu of Recorded Tract Map 10692.

Response

Please refer to Response to Comments TPG-1 through TPG-5.

COMMENTS AND RESPONSES - Wayne L. Brown, August 12, 1997

WLB-1

Comment

This project was a bad idea when it was originally corruptly approved, it has only become more evident over time what a poorly conceived project it is. Please consider the animal corridor rather than the pocket book of the proposed builder. After all the builder knew the history of the property when they bought it at "fire sale" prices. They knew about the specific plan that now protects the area from ill conceived plans. If the proposed builder did not know these things, then all the more reason to deny approval to such poor business people who would not have the foresight to research the property.

Response

Please refer to Section 4.7 of the DEIR for a complete discussion of wildlife movement.

COMMENTS AND RESPONSES - Amber Graves, August 12, 1997

AMG-1

Comment

I know this project was approved long before the specific plan came into existence, but because of the way it was originally approved I think it should be looked at like it were being submitted for the first time. This project does not fit in with the area, it leaves no way for the animals to migrate and will be built on ground that will easily slide even after removing tons and tons of dirt. Please deny this builders request.

Response

Please refer to DEIR Section 4.1 (Land Use), 4.2 (Geotechnical Hazards) and 4.7 (Biological Resources)

COMMENTS AND RESPONSES - Debra Moddelmog, August 12, 1997

DBM-1

Comment

Please consider the past history of this property when making a determination. From the fraud that led it to be originally approved, to the sliding slopes and buildings at the Abbey and including the animal corridor THIS IS NOT A GOOD IDEA. Please uphold the principals of the specific plan.

Response

A complete discussion of project history is contained in Section 2.4 of the DEIR. Please refer to Section 4.2 of the DEIR for a complete discussion of Geotechnical hazards and Section 4.7 for a discussion of project impacts to wildlife movement.

COMMENTS AND RESPONSES - Justin Watson, August 12, 1997

JW-1

Comment

What effect is this project going to have on the Abbey and the Monistary, this is part of Orange Countys Culture. Where can these places be relocated without builders taking away their serenity??

Response

Project related impacts to the Ramakrishna Monastery and Saint Michael's Abbey are documented in Sections 4.1 (Land Use) and 4.9 (Cultural Resources) of DEIR 566.

COMMENTS AND RESPONSES - CITY OF LAKE FOREST
Kathy L. Graham, J.D., AICP, August 12, 1997

CLF-1

Comment

Thank you for the opportunity to review the Environmental Impact Report for the Saddleback Meadows Project. Last year, when the board of Supervisors considered this project in November, City staff provided verbal comments on the project at the public hearing. The City continues to have concerns regarding the project. On April 23, 1997, the City submitted comments to the County on the Revised Notice of Preparation for DEIR #566. The City's NOP Comments were not cited or addressed in the DEIR Document. The comments identified below in this letter represent the City's previously stated concerns regarding the project. We are expecting that the county, as the lead agency, will address these comments in the "Response to Comments" Document for DEIR #566.

Response

The City of Lake Forest Notice of Preparation comment letter is hereby incorporated into DEIR 566. The comment letter does not raise any new issues not already evaluated by the DEIR. Please refer to Section II of this document, Corrections and Additions to the DEIR.

CLF-2

Comment

From the materials presented, it is clear that significant grading and remediation of the site will be necessary. According to the EIR, this grading will involve 2.5 million cubic yards of conventional grading and just under 9 million cubic yards of remedial grading. The EIR did not address the amount of off-site trucking activity which will occur as a result of the earthwork. Earthwork of this magnitude could result in the functional equivalent of half a million double-trailer truck loads of material to be moved. It is our understanding that because of the constraints of this site, a significant portion of this earthen material will be required to be moved to off-site locations for stockpiling and drying prior to returning to the re-engineered and strengthened site.

Response

The comment restates project description and geotechnical information contained in the DEIR. The comment relating to offsite transport and stockpiling of earthen material during the remedial grading phase of the project is incorrect. No offsite transport of earthen material is proposed. All remedial grading will be conducted on the project site in phases.

CLF-3

Comment

The City of Lake Forest has significant concerns about the potentially tremendous increases in traffic, particularly truck traffic, that this project could have on the City. The reports indicate that the excavation and trucking may take as long as eighteen months to complete. The duration of construction is not addressed in the EIR. The City and its residents have been inundated over the last few years with significant public construction and private development outside the City, and the City and its residents have borne a disproportionate impact from this activity. A partial list of construction projects which have impacted the City are as follows: the foothill Transportation corridor, the El Toro Y Project (including streets and off-ramp closures), the Foothill circulation Phasing Plan improvements, and all of the construction and on-going industrial business operations in the City's Sphere of Influence and norther thereof.

Response

Truck traffic would not be a large component of overall project related traffic generation, as no offsite transport of material is proposed, as noted in response to comment CLF-2. Section 3.4 (project phasing) of the DEIR, on Page 3-16, contains a detailed discussion of the duration of construction.

CLF-4

Comment

Based on the impacts from these projects, our residents specifically requested that the City Council consider the adoption of truck routes within the City. The City Council has held a public hearing on this request and is actively studying the need for truck routes within the City. It is our view that approval of this project and the types of truck traffic it would generate would only further the need to establish truck routes within the City. At a minimum, the County needs to incorporate conditions of approval and environmental mitigation relative to truck traffic as it impacts the City, its residents, and its infrastructure. A financial mechanism should be established to reimburse the City for the repair and maintenance costs associated with such heavy truck traffic load on City streets

Response

Please refer to response to comment CLF-2. No additional mitigation measures are required to mitigate additional truck traffic.

CLF-5

Comment

There are other concerns the City has regarding this project, including the appropriate mitigation of the coastal sage scrub plant community (68.7 acres) and other environmentally sensitive plant and animal species. It is not entirely clear from the documentation how these environmentally sensitive areas are to be addressed. Nor is it indicated or insured that adequate safety precautions will be taken during the grading process to insure that the environmentally sensitive areas (i.e. Aliso Creek) are protected from impacts such as grading, or a grading induced landslide.

Response

Section 4.7 of the DEIR outlines a comprehensive mitigation program designed to address project impacts to coastal sage scrub and the sycamore woodland associated with Aliso Creek. It should also be noted that appropriate permits and agreements must be executed with the U.S. Fish and Wildlife Service, California Department of Fish and Game and the U S. Army Corps of Engineers (ACOE) prior to the issuance of any grading permit.

CLF-6

Comment

The EIR indicates that the project represents a potential conflict with the Aliso Creek Corridor Specific Plan (ACCSP). The potential conflict must be specified. The Aliso Creek Regional Riding & Hiking Trail is a valuable recreation resource currently used by residents of the City of Lake Forest and our Sphere of Influence. Significant impacts to Aliso Creek and the Trail, including construction impacts, should be avoided or completely mitigated.

Response

Section 4.1.3 of the DEIR, on Page 4-12, documents the inconsistencies of the proposed project with the Aliso Creek Corridor Specific Plan. These listed inconsistencies include lack of preservation of recreational open space and conservation of natural features, including Aliso Creek and adjacent habitat areas. Please note that the project only affects the portions of the ACCSP which are within the project site. The vast majority of the ACCSP area is unaffected.

CLF-7

Comment

Finally, the EIR indicates that children from the proposed project will be absorbed into the Saddleback Valley Unified School District. It is further indicated that all SVUSD schools in the project vicinity are near capacity. The Environmental Impact Report should address

whether the increase in school age children associated with the project will impact Saddleback Valley Unified School District Schools within the City of Lake Forest Specifically, identify whether enrollment or teacher student ratio will be impacted at any Lake Forest public school site.

Response

Detailed Saddleback Valley Unified School District student and facility impact information is contained in Section 4-12 of the DEIR, beginning on Page 4-209. In addition, updated project related student generation data is included in Section II of the document, Corrections and Additions to the DEIR per comments from the Saddleback Valley Unified School District.

CLF-8

Comment

The concerns identified above must be addressed in the Draft Environmental Impact Report. Please provide the City with a copy of the DEIR "Response to Comments" Document as soon as it is available.

Response

The comment is noted. The City of Lake Forest will be provided with a copy of the Response to Comments document in accordance with State CEQA requirements and County of Orange procedures.

COMMENTS AND RESPONSES - SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS, J. David Stein, Manager, Performance Assessment and Implementation, August 12, 1997

SCAG-1

Comment

Thank you for submitting the County of Orange, Draft Subsequent Environmental Impact Report for Saddleback Meadows Project (Recorded Tract 10692) to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

The attached detailed comments are meant as administrative comments to provide guidance for considering the proposed project within the context of our regional goals and policies. SCAG's policy level review will be initiated with the presentation of the proposed Saddleback Meadows Project to SCAG's Standing committee on Implementation (SCI) on September 4, 1997 at 11:00 am at the SCAG office in Los Angeles. You or the project developer are cordially invited to attend this meeting and answer any questions. If you have any questions regarding the attached comments, please contact Bill Boyd at (213) 236-1960. He will be contacting you with further information concerning this SCI meeting.

Response

The comment is noted. The referenced meeting was not attended by either the applicant or the County of Orange.

SCAG-2

Comment

COMMENTS ON THE COUNTY OF ORANGE SADDLEBACK MEADOWS PROJECT (RECORDED TRACT 10692) DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

PROJECT DESCRIPTION

The Saddleback meadows site encompasses approximately 222 acres and is located on the easterly side of El Toro Road, approximately ½-mile south of the intersection of Santiago Canyon Road/El Toro Road and Live Oak Canyon Road, in east-central unincorporated Orange County. The incorporated cities of Mission Viejo and Lake Forest lie approximately three miles to the south and southwest, with the Cleveland National Forest boundary located approximately ½-mile north of the project site. The project site is surrounded by residential development, with the Portola Hills and Foothill Ranch planned communities to the west, the Hidden Ridge/Hidden Hills community and a nursery to the south, and scattered low-density

residential uses to the north and east. O'Neill Regional Park is located adjacent to the southerly boundary of the site with St. Michael's Abbey immediately to the northwest and the Ramakrisha Monastery located immediately to the southeast.

The Project site is located within the Foothill-Trabuco Specific Plan and the DEIR states that the Project is inconsistent with many of the goals, objectives and policies of the plan which generally calls for preservation of the rural character and natural habitat of the area. The site is also located within the Aliso Creek Corridor Specific Plan area, and the DEIR notes that although it incorporates regional; riding and hiking trail connections into its design, it does conflict with several other aspects of the Plan. For example, it would not preserve recreational open space or conserve natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel. The DEIR also states that the project is in direct conflict with the Natural communities Conservation Planning Program (NCCP) in that it would disturb sensitive wildlife habitat area. The project site is also situated just north of the Foothill Transportation Corridor.

The proposed Project would construct a previously approved and recorded Tract Map 10692 which was originally approved in 1979 and recorded in 1988. The Draft SEIR notes that the Project is consistent with the approved tract map, and proposes the phased planned development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure. The gross residential density is 3.17 du/ac, with minimum lot sizes of 2,630 square feet. The total development footprint would affect 86 percent or about 191 acres of the project site. Thirty-nine percent of the project site is proposed to remain in open space, including community slope area. The project proposes eight private park sites; regional equestrian hiking and bicycle trail connections; and the construction of a water tank site to be dedicated to the local water company.

Prior to the most recent submittal of a grading permit application for Tract Map 10692, the project was proposed for 318 single-family dwelling units. The Draft EIR for the Project noted that the 318-unit project was "environmentally superior" to the 705 unit project currently being proposed, the 318-unit proposal was denied. The earlier Draft EIR has identified the 705-unit project as one of the two environmentally inferior alternatives considered.

The Draft EIR identifies the following areas of controversy that have arisen in response to the Notice of Preparation and which are addressed in the DEIR:

- Land Use/Aesthetic Compatibility
- Foothill-Trabuco Specific Plan Conformance
- Emergency Access Requirements
- Wildlife Corridor Design Width
- Project Specific Affordable Housing Requirements
- EIR Preparation Process/Procedures
- Loss of Wild Habitat
- Geophysical Stability
- Traffic/Circulation

The following alternatives to the proposed development are evaluated in the DEIR:

Alt. 1 No Project/No Development.
Alt. 2 Foothill-Trabuco Specific Plan Alt. A - 150 Minimum 20,000 sq. Ft. lots.
Alt. 3 Foothill-Trabuco Specific Plan Alt. B - 100 SFD Units on 31.7 acres.
Alt. 4 OCP&DS Staff Alternative (EIR 561) - 299 SFD Units, Min. 5,000 sq. Ft. lots.
Alt. 5 Cluster/Reduced Development Footprint - 318 SFD/MFD.

Response

The comment restates information contained within the DEIR 566. No response is required.

SCAG-3

Comment

INTRODUCTION TO SCAG REVIEW PROCESS

The document that provides the primary reference for SCAG's project review activity is the Regional Comprehensive Plan and Guide (RCPG). The RCPG chapters fall into three categories: core, ancillary, and bridge. The Growth Management (adopted June 1994), Regional Mobility (adopted June 1994), and Water Quality (adopted January 1995) chapters constitute the core chapters. These core chapters respond directly to federal and state planning requirements. The core chapters constitute the base on which local governments ensure consistency of their plans with applicable regional plans under CEQA. The Air Quality and Growth Management chapters contain both core and ancillary policies, which are differentiated in the comment portion of this letter. The Regional Mobility Element (RME) constitutes the region's Transportation Plan. The RME policies are incorporated into the RCPG.

Ancillary chapters are those on the Economy, Housing, Human Resources and Services, Finance, Open Space and Conservation, Water Resources, Energy, and Integrated Solid Waste Management. These chapters address important issues facing the region and may reflect other regional plans. Ancillary chapters, however, do not contain actions or policies required of local government. Hence, they are entirely advisory and establish no new mandates or policies for the region.

Bridge chapters include the Strategy and Implementation chapters, functioning as links between the Core and Ancillary chapters of the RCPG.

Each of the applicable policies related to the proposed project are identified by number and reproduced below in italics followed by SCAG staff comments regarding the consistency of the project with those policies.

Response

The comment outlines the components of the Regional Comprehensive Plan and Guide. No response is required.

SCAG-4

Comment

Consistency With Regional Comprehensive Plan and Guide Policies

1. The Growth Management Chapter (GMC) of the Regional Comprehensive Plan contains a number of policies that are particularly applicable to this Project.

a. *Core Growth Management Policies*

3.01 The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.

SCAG staff comments As SCAG has designated subregions, the project is situated in the Orange County subregion. Implementation of the project would result in the creation of 705 housing units. The DEIR acknowledges on page 4-3 that the project site is situated within a Regional Statistical Area that is forecasted to grow at the rate of 2.3 percent between 1995 and 2000. Although the DEIR does not identify the projected population that would be accommodated by the 720 units, it is evident that this growth can be accommodated in that forecasted by SCAG for the subregion. The project is consistent with this RCPG policy.

Response

The comment documents consistency with the Growth Management Chapter of the Regional Comprehensive Plan No response is required.

SCAG-5

Comment

3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.

SCAG staff comments: The DEIR contains an analysis of the relationship of the Project to this policy (18 months to complete project grading, phasing of residential units within 5 years following completion of grading, installation of all infrastructure during initial phase) on page 3-16. The Project is consistent with this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-6

Comment

b. *Ancillary Growth Management Policies*

3.04 Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.

SCAG staff comments. The DEIR references consistency of the Project's objectives of providing affordable housing in a jobs-rich, housing-poor area on page 4-11. It notes that the project was conditionally approved in 1979 with a 66 2/3 percent affordable housing requirement in accordance with the County's Inclusionary Housing Policy. The county policy has since been rescinded, but the project is bound by the original tract map to provide a total of 470 lots to be sold in the affordable range. These lots are further broken down to include: 188 low/moderate and 282 Medium I level housing units. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4

SCAG- 7

Comment

3.05 Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities

SCAG staff comments. This Project would utilize existing water and sewer infrastructure that is available at the site boundary. The type of development proposed in the Project makes good use of this infrastructure as stated on pages 4-230 and 231 of the DEIR. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-8

Comment

3.11 Support provisions and incentives created by local jurisdictions to attract housing

growth in job rich subregions and job growth in housing subregions.

SCAG staff comments. See comments on policy 3.04. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-9

Comment

3.12 *Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.*

SCAG staff comments. The Draft EIR on page 4-52 states that the proposed Project will generate 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. The project site is not served by an existing bus route adjacent to the site on El Toro Road. The nearest OCTA bus service (2 routes) are located 2.25 and 2.5 miles southwest of the project site, and the nearest park-and-ride facility is located 2.0 miles southwest of the site. No provisions are made to provide for transit access to the site and to reduce the reliance on the automobile. The Project will result is increased need for roadway improvements to meet projected vehicle trips and miles traveled. The Project is not supportive of this RCPG policy.

Response

OCTA provides bus service to Orange County and expands service to meet demand.

SCAG-10

Comment

3.17 *Support and encourage settlements patterns which contain a range of urban densities.*

SCAG staff comments. The Project proposes that the entire site be developed for single residential use at a gross residential density of 3.17 du/acre. Alternative No. 5 (Cluster/Single Family/Multifamily) would have significantly less total acres of the site disturbed (113.0 ac versus 191.4 ac). This alternative could better achieve intent of this SCAG policy, while minimizing site disruption and preserving more open space. The Project is not supportive of this RCPG policy.

Response

The comment documents the inconsistency between the proposed project and the RCPG.

SCAG-11

Comment

3.18 Encourage planned development in locations least likely to cause adverse environmental impact.

SCAG staff comments. The DEIR states that the proposed Project will result in the following unavoidable adverse impacts that cannot be mitigated to a level less than significant:

- Land use incompatibility impacts to O'Neill Regional Park (wildlife habitat), the Ramakrishna Monastery and St. Michael's Abbey.
- Vehicular emissions from project related traffic will have a cumulative significant air quality impact.
- Project specific and cumulative impacts to 50.3 acres of Venturan-Diegan transitional coastal sage scrub until such time as a section 4 (d) interim take is authorized.
- Development of the first large tract within the Foothill/Trabuco Specific Plan area will result in cumulative impacts to existing rural and natural open space and to a continued urbanization of foothill areas in south Orange County.
- Permanent viewshed alteration will occur with regard to the regional park, monastery and abbey and additional night lighting glare change night views from an unlit dark open space to an urban night environment.

Furthermore, the project would result in significant impacts related to slope stability, landslides, mud slides, subsidence and erosion. Mitigation measures are proposed to address these impacts, but the fact remains that the project will result in a total of 2.6 million cubic yards of conventional grading and 8.9 million cubic yards of remedial grading. Taken as a whole, the Project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-12

Comment

3.19 National Forests shall remain permanently preserved and used as open space. SCAG shall support policies and actions that preserve open space areas identified in local, state, and federal plans.

SCAG staff comments. The DEIR states that the proposed Project will result in the following conflicts with local or state open space plans and policies:

- The project conflicts with the Foothill-Trabuco Specific Plan, specifically with regard to the preservation of a regionally contiguous wildlife corridor and the types of homes being proposed would be incompatible with site topography and biological resources.
- The project conflicts with the Aliso Creek Corridor Specific Plan in that it would not preserve recreational open space or conserve the natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel.
- The project conflicts with the Natural Communities Conservation Planning Program in that it would further disturb a sensitive wildlife habitat area.

The Project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-13

Comment

3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.

SCAG staff comments. The Draft EIR identifies a number of instances where this policy is not supported:

- The loss of 50.3 acres of Venturan-Diegan Transitional Coastal Sage Scrub that, although it will not be considered a "take" under federal requirements, will when added to other losses in the area, total about 2.4% of the coastal sage scrub in the Southern Subregional NCCP program area.
- The loss of 3.8 acres of Muelfat Scrub (associated with three ephemeral ponds) and 3.3 acres of Southern Sycamore Riparian Woodland which are significant because of their values as wildlife habitats and their function as wetlands.
- The loss of 14.6 acres of Coast Live Oak Woodland (312 individual trees) which are significant because of their wildlife values, their function in watershed protection and their function as part of the planned NCCP regional wildlife corridor.
- The loss of 0.6 acres of existing Ephemeral Ponds which is significant due to the presence of the Riverside fairy shrimp which is a federally endangered species.

- Direct impacts to 1.65 acres of wetlands and 1.78 acres of "Waters of the United States" (intermittent streams and man-made stock ponds).
- Adverse, but not significant, loss of populations of two sensitive plant species, the Catalina mariposa lily and intermediate mariposa lily.
- The loss of approximately 50.3 acres of potential nesting and foraging habitat (coastal sage scrub) on and off site, including portions of areas occupied by at least 12 pairs of southern California rufous-crowned sparrows and at least six pair of coastal cactus wrens, both of which are regionally sensitive species.
- General loss of habitat for at least 63 animal species which were observed during various on-site surveys.
- Acknowledgment that "the project, as currently proposed, may hinder or preclude the preparation of the Southern Subregional NCCP Preserve, due to restricted wildlife movement corridors".

The Project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-14

Comment

3.21 *Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.*

SCAG staff comments. The Draft EIR acknowledges that the Project is known to contain significant deposits of artifacts (four significant sites) and fossils, as well as a ranch house ruin. The project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-15

Comment

3.22 *Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.*

SCAG staff comments. The Draft EIR acknowledges that the Project site is characterized as containing ridges, ravines, and gullies with natural slope gradients ranging from nearly level along some ridge crests and valley bottoms to 1:1 (horizontal:vertical) within deep incised gullies. The slope characteristics of the site

are as follows: 95.5 acres (43% of site) is in the 0-25 percent slope category; 94.9 acres (43%) is in the 26-50 percent slope category; and, 31.8 acres (14%) of the project site has slopes in excess of 50 percent. As noted in the project description, significant grading is required to develop the site as proposed.

The Draft EIR also acknowledges that the Project is located in an area designated as a high "Special Fire Protection" area due to its combination of natural combustible vegetation, topography and weather conditions (frequent dry Santa Ana winds). Furthermore, Draft EIR notes a potential conflict between the human environment and the two main top predators of the region, coyotes and mountain lions.

The Project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-16

Comment

3.23 *Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.*

SCAG staff comments. Discussion of mitigation measures to address emergency response concerns due to seismic hazards, biological and ecological resources and other natural or manmade hazards are included in the Executive Summary of the Draft EIR. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-17

Comment

3.24 *Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.*

SCAG staff comments. See staff comments on policy 3.04. The Project will increase the supply and quality of affordable housing in southeastern Orange County. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-18

Comment

2. The Regional Mobility Chapter (RMC) also has policies, all of which are core, that pertain to the proposed project. This chapter links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitation. Among the relevant policies in this chapter are the following:

Transportation Demand Management and Regional Transit Program Policies

4.01 Support Promote TDM programs along with transit and ridesharing facilities as a viable and desirable part of the overall mobility program while recognizing the particular needs of individual subregions.

4.03 Support the extension of TDM program implementation to non-commute trips for public and private sector activities.

4.04 Support the coordination of land use and transportation decisions with land use and transportation capacity, taking into account the potential for demand management strategies to mitigate travel demand if provided for as a part of the entire package.

SCAG staff comments. See staff comments on policy 3.12. SCAG's December 31, 1996 letter on the Notice of Preparation for the Saddleback Meadows project recommended consideration of these three policies in the preparation of the Draft EIR. No apparent consideration was given to the provision of TDM or transit services to meet the needs of the proposed 6,220 trip ends per day in year 2020. Mitigation measure AM 5-3 is not an air quality mitigation measure, but rather a commentary on not taking credit for mobile source emission reductions, including trip reduction programs. The Project is inconsistent with the three TDM/transit RCPG policies.

Response

Please refer to response to comment SCAG-9

SCAG-19

Comment

Regional Street and Highways Program Policies

4.20 Expanded transportation system management by local jurisdictions will be encouraged.

4.23 TSM activities throughout the region shall be coordinated among jurisdictions.

SCAG staff comments. The Draft EIR notes that the Project developer will pay for signal modifications and turn lanes at the intersections of El Toro Road with Valley Vista Way and the new northern collector street serving the site. Furthermore, a mitigation measure (AM 4-16) assures that the developer will participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program, El Toro Road Fee Program and the Santiago Road Fee Program. The Project is consistent with these two RCPG policies.

Response

Please refer to response to comment SCAG-4.

SCAG-20

Comment

Regional Non-Motorized Transportation Program Policies

4.25 The development of the regional transportation system should include a non-motorized transportation system that provides an effective alternative to auto travel for appropriate trips. The planning and development of transportation projects and systems should incorporate the following, as appropriate:

a • Provision of safe, convenient, and continuous bicycle and pedestrian infrastructure to and throughout areas with existing and potential demand such as activity areas, schools, recreational areas (including those areas served by trails), which will ultimately offer the same or better accessibility provided to the motorized vehicle.

b • Accessibility to and on transit (but terminals, rail stations, Park-And-Ride lots), where there is demand and where transit boarding time will not be significantly delayed.

c • Maintenance of safe, convenient, and continuous non-motorized travel during and after the construction of transportation and general

development projects. Existing bikeways and pedestrian walkways should not be removed without mitigation that is as effective as the original facility.

SCAG staff comments. The Draft EIR acknowledges that the Project abuts the Aliso Creek Bikeway. Mitigation measures (PDF 10-1 and 10-2) assure the construction of the Live Oak Canyon and Aliso Creek riding and hiking trails within the Project boundaries. No local bikeway or pedestrian circulation improvements are provided for in the Project design The Project is consistent with this RCPG policy as it relates to regional bikeway and trail access but inconsistent with the policy as it pertains to local bikeways and pedestrian walkways within the Project site.

Response

The comment documents both the project's consistency and inconsistency with the non-motorized transportation policies.

SCAG-21

Comment

4.27 *Urban form, land use and site-design policies should include requirements for safe and convenient non-motorized transportation, including the development of bicycle and pedestrian-friendly environments near transit.*

SCAG staff comments. See previous comments on policies 3.12, 4.01, 4.03, 4.04 and 4.25 The Project is inconsistent with this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-22

Comments

3. The Water Quality Chapter (WQC) core recommendations and policy options relate to the two water quality goals; to restore and maintain the chemical, physical and biological integrity of the nation's water; and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters. The core recommendations and policy options that are particularly applicable to the Project include the following:

11.02 *Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.*

SCAG staff comments: The Draft EIR acknowledges that the project site is located

within the boundaries of two primary watershed areas: 1) Aliso Creek (75% of site) and 2) Oso Creek (24% of the site). The Draft EIR on page 4-38 acknowledges that "Implementation of the proposed project will result in the introduction of impervious surfaces (streets, driveways, residential units) and will result in **a decrease in the area available for stormwater percolation and a substantial increase in stormwater runoff**. Implementation of the proposed project will result in **substantial landform modification**, redirecting site drainage throughout the site." [emphasis added] The Project proposes drainage improvements that mitigate drainage impacts to a level less than significant. However, the project as noted previously herein, conflicts with the Aliso Creek Corridor Specific Plan in that it "would not preserve recreational open space or conserve the natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel". The Project does not recognize watershed management policy in the local government approved Aliso Creek Corridor Specific Plan. The Project is inconsistent with this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-23

Comment

Couclusions and Recommendations:

(1) As noted in the staff comments, the proposed Sadddleback Meadows Project is consistent with or supports many of the policies in the Regional Comprehensive Plan and Guide, but is inconsistent with core policies 4 01, 4.03, 4.04, 4.27 and 11.02 and is not supportive of ancillary policies 3.12, 3.17, 3.18, 3.19, 3.20, 3.21 and 3.22. Furthermore, the Project is consistent with some aspects of core policy 4.25 and inconsistent with others, as noted in the staff comments.

(2) All mitigation measures associated with the project should be monitored in accordance with AB 3180 requirements and reported to SCAG through the Annual Reasonable Further Progress Reports.

Response

The comment summarizes the comments contained in the comment letter and requests that all mitigation measures be monitored and reported to SCAG on an annual basis. All mitigation measures contained within the Final EIR will be monitored in accordance with the requirements promulgated by CEQA. Copies of the monitoring reports will be made available for SCAG review.

COMMENTS and RESPONSES - SADDLEBACK VALLEY UNIFIED SCHOOL DISTRICT, Peter A. Hartman, District Superintendent, August 13, 1997

SVUSD-1

Comment

In response to the above Draft EIR #566 indicating that approval of this project would have significant impacts on the district's provision of adequate school facilities unless mitigation is provided, we would like to provide some information for your consideration:

K-6	= .2264	=	160
7-8	= .0566	=	40
9-12	= .0755	=	54
K-12	= .3585	=	254 students

As we have no district standard for manufactured housing, the above is our prediction for the impact of this project on our district.

Response

The proposed project is not designated as an *adults only* community, and student generation rates would be expected to be similar to standard single family detached dwelling units. The identified student generation rates, based on an existing non-adults only manufactured housing development located within the district, are hereby incorporated into the Final EIR. Please refer to Section II of this document, Corrections and Additions to the DEIR.

SVUSD-2

Comment

Currently, students in this general area are assigned to Portola Hills Elementary, Rancho Santa Margarita Intermediate and either El Toro High School or Trabuco Hills High School. ALL of these schools are filled to capacity and either do have now or will have by fall, 1997 added a number of relocatable buildings to house enrollment exceeding the capacity of their original construction.

Per the current practice of the County of Orange regarding other projects, the district requests that this project be conditioned to require that the proponent, California Quartet, Inc., meet with district staff to review the impact and necessary mitigation measures needed as a result of this project.

Response

The comment relating to high schools which would serve the proposed project and the

overcrowded conditions of all schools that would serve the proposed project is hereby incorporated into DEIR 566. Please refer to Section II of this document, Corrections and Additions to the DEIR.

COMMENTS AND RESPONSES - STATE OF CALIFORNIA - RESOURCES AGENCY, DEPARTMENT OF PARKS AND RECREATION, Bill Berry, District Superintendent, August 15, 1997

DPR-1

Comment

The California Department of Parks and Recreation (CDPR), Los Lagos District office has reviewed the above referenced document thank you for the opportunity to provide comments.

The CDPR is s trustee agency as defined by CEQA. In addition, a defining tenant of our mission is to help to preserve the state's extraordinary biodiversity. As the office responsible for the stewardship of the natural cultural resources of Chino Hills State Park, we have an interest and concern about land use decisions in the geographic area as they relate to our mission and responsibilities under CEQA.

Response

The comment states the trustee responsibility that the State of California, Department of Parks and Recreation has in relationship to DEIR 566.

DPR-2

Comment

We view the maintenance of a functional system of interconnected wildland areas throughout the region as vitally important to the preservation of biodiversity. The Santa Ana mountains and the Puente-Chino Hills are an interdependent ecological system. The health of each area is integral to the other. CHSP is located in the Puente-Chino Hills adjacent to the northern end of the Santa Ana Mountains The Santa Ana Mountains provide a valuable source of genetic material that helps to maintain the health and diversity of CHSP's plant and animal populations.

The importance of the two areas to each other continues to increase as they each become smaller, more isolated, and more fragmented by surrounding development. Fragmentation and isolation portends massive ecosystem collapse that could render all of our other regional conservation efforts nearly pointless.

Given the importance of the Santa Ana Mountains to the maintenance of the diversity of life in CHSP and the Puente-Chino Hills, we are concerned about the potential isolating and fragmenting effects of projects in the vicinity of the mountain range, and conserved lands within it such as the Cleveland National Forest and O'Neill Regional Park. We believe that development adjacent to these protected wildland areas would be designed in a manner that will preserve functional biological corridors and buffer protected lands from more intensive land uses.

Response

It should be noted that Chino Hills State Park is over twenty air miles northwest of the project site, separated from the project site by the SR 91 freeway. Section 4.7 of the DEIR, beginning on page 4-118 of the DEIR, documents the project related effects to wildlife movement in the vicinity of the project site and in relationship to the ongoing planning efforts associated with the NCCP southern sub-regional preserve. Implementation of the proposed project would have an incremental effect on wildlife movement between O'Neill Regional Park and the Cleveland National Forest, although would not represent a significant impediment to wildlife movement between the Santa Ana Mountains and the Puente-Chino Hills.

DPR-3

Comment

After reviewing the alternative for the project, it appears that Alternative 3 is the most responsible one. It limits development to the western side of the project, thereby protecting connectivity between O'Neill Regional Park and the Cleveland National Forest. It also places new development next to existing residential and commercial areas while providing a significant buffer to the park and forest It appears that all of the other alternatives in some way fragment the National Forest from the Regional Park, and reduce the buffer to existing wildland.

Response

The comment restates information contained in the Alternatives section of the DEIR.

DPR-4

Comment

In the final development decision, we believe it is incumbent on the lead agency to approve an alternative that is responsible to the invaluable natural resources found in the Cleveland National Forest, the County Regional Parks, and throughout the surrounding Region. We appreciate the consideration given to buffers and corridors in the environmental review, and we encourage their full protection. Thank you for the opportunity to comment. If you have any questions, please contact Geary Hund, Doreen Ferguson or myself at (909) 657-0676

Response

Please refer to response to comment No. DPR-3.

COMMENTS AND RESPONSES - RURAL CANYONS CONSERVATION FUND, Ray Chandos, August 18, 1997

RCCF-1

Comment

We have reviewed Draft EIR 566 (the DEIR) and comment as follows:

1. DEIR MUST IDENTIFY FEASIBLE MITIGATION MEASURES AND PROJECT ALTERNATIVES

A bizarre disclaimer precedes the body of this DEIR at page 3-8.

It is therefore understood that the environmental analyses and evaluations contained in this document are largely informational, and not prescriptive in nature in that mitigation measures which would alter features of the final recorded tract map can not be implemented to reduce all project impacts to a level of insignificance. This is attributable primarily to the physical limitations of the site and the inability to deviate from the final recorded tract map. Accordingly any findings of significant impacts must be offset through the issuance of a statement of Overriding Considerations

Does this mean that some or all of the mitigation measures listed in the DEIR are "largely informational" and "can not be implemented"? If so, those mitigation measures should be identified, because CEQA required the EIR to set forth feasible mitigation measures and alternatives to reduce or eliminate the project's identified significant environmental impacts to the extent feasible. Please identify for the decision makers which mitigation measures "can not be implemented;" and which can be implemented.

Response

The referenced statement was included in DEIR 566 to describe the unique parameters associated with the evaluation of an existing recorded tract map in a DEIR. Mitigation measures which would require the applicant to substantially deviate from the physical design of the recorded tract map are not possible under the Subdivision Map Act, and as such would not be enforceable or considered feasible. As such, mitigation measure development must focus on reducing or eliminating adverse project related impacts through means which would not alter the physical parameters of the recorded tract map. Consequently, as stated in the referenced portion of the document, any unavoidable adverse impacts which cannot be reduced to a level of less than significant, would require a Statement of Overriding Considerations as part of the Final EIR certification process.

RCCF-2

Comment

Further, in stating that "any findings of significant impacts must be offset through the issuance of a statement of Overriding Considerations," the disclaimer implies that the County lacks any discretion to deny the grading permit. As explained below, however, the County may deny the grading permit, or approve an alternative to it.

Response

Please refer to response to comment RCRF-1.

RCCF-3

Comment

2. THE COUNTY HAS DISCRETION TO DENY THE PROJECT OR APPROVE AN ALTERNATIVE PROJECT.

As acknowledged in the DEIR, the Foothill/Trabuco Specific Plan explicitly mandated environmental review of the project under CEQA, requiring an Initial Study and "additional environmental documentation" "[p]rior to the issuance of any grading permit for the subject property." (FTSP Section III.3.2(c).) This provision implies discretion--preparing environmental documentation would simply waste time and paper if it could not be acted upon. CEQA Guidelines classify the issuance of a building permit as discretionary if local ordinance--in this case the FTSP (enacted in 1991 by ordinance)--contains "any discretionary provision." (CEQA Guidelines Section 15268(b).) Section III.3.2© recited above appears to constitute such a "discretionary provision" in this case.

As this court noted in Friends of Westwood v. Los Angeles (1987) 191 Cal.App.3d 259, 266-268, preparing environmental documentation for a purely ministerial project would be futile since the approving agency has no discretion to modify such a project to eliminate or reduce environmental impacts.

Nor does any statute or regulation say that the granting of a grading permit is necessarily ministerial That depends on the particular circumstances. (CEQA Guidelines Section 15268(a).) The Westwood court held that "doubt whether a project is ministerial or discretionary should be resolved in favor of the latter characterization." (Id. at 191.)

Also, the court in Day v. Glendale (1975) 51 Cal.App.3d 817, 824, held that CEQA may apply even to a governmental approval involving virtually no discretion if that approval "is the only point at which the environmental impact of the project may be publicly considered ...."--certainly the case here.

The County's Grading Code also appears to contain several "discretionary provisions" under

Section 7-1-821, "Denial of permit." It says, in part especially pertinent to this project: "If, in the opinion of the Building Official, the land area for which grading is proposed is subject to geological or flood hazard to the extent that no reasonable amount of corrective work can eliminate or sufficiently reduce the hazard to human life or property, the Grading Permit and the Building Permits for habitable structures shall be denied." (O.C. Grading Code, Section 7-1-821(d).) Still another says the "Building Official may require plans and specifications to be modified in order to mitigate anticipated adverse environmental effects of proposed grading projects." (Section 7-1-821(c).) These ordinances, then, provide considerable discretion for the County in granting or denying the proposed grading permit.

Finally, and contrary to the disclaimer, CEQA provides for reducing or avoiding a project's significant environmental impacts through adoption of an alternative project. The DEIR in fact sets forth two alternative projects, numbers 3 and 4, which mitigate every one of the project's identified significant environmental impacts while still attaining its objectives. (DEIR page 6-22.) The DEIR contains no evidence that either of these two alternatives is not feasible.

Response

- The comment regarding the discretionary aspects of the grading permit approval process is acknowledged. The grading permit must be approved by the Manager, Subdivision and Grading Services prior to issuance of any grading permits for the proposed project. The comment relating to alternatives is correct.

RCCF-4

Comment

3. DEVELOPMENT COSTS MAY RENDER THE PROJECT ITSELF INFEASIBLE.

In making required CEQA determinations, the decision makers will have to compare the project's feasibility with that of the available alternatives. Unfortunately, the DEIR supplies little or no evidence on which to base such findings.

the feasibility of the preferred project, however, seems obvious at best. On the one hand, several factors limit the selling price of the 708 housing units, including the County's affordable housing requirements (Condition 19 or recorded tract map), small lot size, crowded design, and the low market value of manufactured unit. The $155,000 average per unit selling price used in the DEIR's fiscal impact report seems unduly optimistic, especially since much larger, conventional houses across El Toro Road have assessed valuations averaging only $200,000 to $250 000.

On the other hand, development costs seem unusually high, due primarily to the extensive amount of required grading (11.5 million cubic yards, DEIR page 4-22). Even for a project having much less grading than proposed here, Larry L. Simon estimated $44 million in site

preparation costs in a August 1990 report prepared for Imperial Federal Savings Association (No. RTC-90-000042), or $62,000 per units in site preparation costs alone. Land and construction costs, plus per-unit fees for roads, tollways, bridges, schools, etc. would of course add to the project's costs.

The DEIR should contain the best available information on the feasibility of this project and its alternatives so that the decision makers can make a reasoned choice.

Response

The comment is noted. Financial feasibility information for each alternative has not been provided by the applicant, and as such, is not included in the DEIR.

RCCF-5

Comment

4. THE GRADING PLAN MUST BE PROVIDED FOR REVIEW.

The DEIR seems to contain only a "conceptual" and mostly illegible grading plan" (DEIR page 4-23). Since the project is a grading permit, involving a phenomenal amount of grading, the grading plan itself must be included in the DEIR to allow the public and responsible agencies to review it.

The grading plan must indicate the location of the 19.77 acres of "offside grading" (DEIR page 3-8).

We consider this omission sufficiently serious to require supplementation of the DEIR and an extension of the comment period.

Response

Please refer to response to comment SFC-1. Areas of offsite grading are clearly shown in Exhibit 7, Site Plan.

RCCF-6

Comment

5. A FULL FAITHFUL PERFORMANCE BOND SHOULD BE REQUIRED.

Given the project's questionable feasibility and extensive geological instability, it remains a prime candidate for failure during the 18-month grading process. We note that two previous owners and would-be developers of this site went bankrupt. The EIR must assess the potential safety problems resulting from a half excavated site: drainage and erosion, collapse of adjacent properties, collapse of El Toro Road, etc., as well as the possible financial liability

to the County in the event of abandonment. As a mitigation measure, the County must impose as a condition of approval of any grading a full faithful performance bond sufficient to restore the site to a safe condition.

Response

Please refer to Section 4.2, Soils and Geology for a complete discussion of project related geotechnical hazards and mitigation measures. The financial conditions of the two previous owners of the site is not related to geotechnical conditions. Therefore, the comment regarding bankruptcy is speculative and does not require a response per CEQA.

RCCF-7

Comment

6. DEIR MUST ANALYZE REAL EFFECTS ON CIRCULATION--NOT INTERSECTION LEVELS OF SERVICE.

The DEIR analyzes the project's impacts on traffic and circulation by listing the level of service expected at various intersections around the project. These levels of service, based on the number of lanes, roadway geometry, and traffic volumes, generally indicate how many signal changes it will take to get through an intersection.

The County must stop using this methodology, because it does not measure the true impact on transportation--i.e., on people trying to get from one place to another. Not surprisingly, typical developer-prepared EIR's invariably conclude, as does this one, no significant impact on the region's traffic and circulation. Only minor road widenings, restriping traffic lanes, and installation of more traffic signals are normally deemed necessary to avoid such significant impacts.

And yet, the average travel times have dramatically increased in the region, due mainly to the proliferation of traffic signals. For example, in 1983, there were no traffic signals on El Toro Road from Cook's Corner to Trabuco Road. By 1997, there were seven. While each one may operate at level of service "D" or better, they collectively can (and often do) add several minutes to a trip which used to take only five minutes.

The average trip time more effectively measures and summarized the project's true impact on "traffic and circulation" than does simply tabulating the expected levels of service at a growing number of signalized intersections, and will more realistically reflect the inevitable and increasing conflicting movements of vehicles generated by the sprawling suburban development in this region.

Under CEQA, EIRs must be written in plain language so that the public can understand the potential effects of a project. This DEIR's traffic analysis fails this requirement, as explained above. Typical travel times, with and without the project, would be included in the DEIR.

Response

The methodology employed in the DEIR to analyze project related traffic impacts is a standard protocol adopted by the County of Orange, and is used in all EIR documentation. Travel time and delay analysis is not appropriate for long range planning purposes. With regard to the plain language comment, the County requires all technical reports, including traffic reports, to be summarized in language understandable by an informed public.

RCCF-8

Comment

7. DEIR MUST ASSESS THE ACTUAL IMPACT ON SCHOOL.

The DEIR gives short shrift to the project's impacts on schools--a single sentence affirming the obvious, that the project would send "400 additional students into the currently overcrowded Saddleback Valley Unified School District." (DEIR page 4-220.) As mitigation, it proposes only the payment of required school fees of $1.72 per square foot of residential (page 4-224), and then somehow concludes that "[n]o unavoidable adverse impacts would occur to education services" (page 4-226).

This conclusion cannot be supported by the available evidence. As the school district has repeatedly verified, the state-required fees do not suffice to provide required school facilities in the region. The DEIR must list the school facilities to be impacted by the project, describe the existing conditions at these facilities, and then assess the expected impact of the project on each.

Response

The proposed project must comply with the requirements of the State School Impact Fee Program to alleviate any incremental burden, in accordance with the School Facilities Act, (Government Code Section 65995).

It should be noted that there are other mechanisms available to school districts to fund new school construction. These include community assessment districts and general obligation bonds. However, implementation of these programs will require two-thirds vote of the residents and therefore, are not presently enacted. At this time, the only mechanism enacted by the Saddleback Valley Unified School District is the use of developer fees in accordance with state mandated limitations.

RCCF-9

Comment

These comments are made on behalf of the Rural Canyons Conservation Fund, Ray Chandos as an individual, Bruce Conn as an individual, Sherry Meddick as an individual, and any other

person opposed to this project as proposed. These comments and any references contained herein are hereby incorporated into the official record of proceedings of this project and its successors.

Response

The comment is noted.

COMMENTS AND RESPONSES - GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, Antero A., Rivasplata, August 19, 1997

GOPR-1

Comment

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may response promptly.

Response

The comment is noted. No response is required.

COMMENTS AND RESPONSES - RUTAN & TUCKER, LLP.
David B. Cosgrove, August 21, 1997

RAT-1

Comment

This office, and the undersigned in particular, represent St. Michael's Abbey ("Abbey"). As you may be aware, the Abbey is a landowner adjacent to the proposed Saddleback Meadows Project ("Project") for which the above-referenced Draft Subsequent Environmental Impact Report ("DSEIR") has been prepared. The Abbey will be directly affected by this Project.

The Abbey opposes the Project as currently proposed, for many of the same reasons already expressed in connection with the processing of Environmental Impact Report No. 561. That EIR was the subject of numerous letters from our office, raising various objections to CEQA, land use inconsistencies, and other problems with the Project. The provisions of those letters are incorporated herein by reference, and we would request that copies of them be made a part of the administrative record in the processing of this DSEIR.

The Abbey believes there are a number of legal, environmental, planning, and other defects in the currently proposed Project. This letter, and the items incorporated herein by reference, constitute the Abbey's comments under CEQA public comment procedures for DSEIR No. 566.

Response

The comment is noted. Please note that DEIR 561, including the response to comments document, has been incorporated by reference into DEIR 566.

For ease of reference, the comments are grouped under separate subject headings below.

RAT-2

Comment

1. <u>The Project description and public review of the Project are flawed.</u>

At the outset, the Abbey must note that there is significant confusion regarding exactly what is the Project being reviewed. The Project chronology at DSEIR 2-8 and 2-9 indicate the catalyst for the preparation of this DSEIR was an application for a Phase I grading plan. The Project description at DSEIR 3-1, et seq., seems to indicate the Project is the actual construction of a 705-unit affordable housing project. This project includes a 1.5 acre neighborhood commercial center, which is referenced at DSEIR 3-1, but not analyzed further in other sections of the DSEIR. Moreover, DSEIR 3-15 lists approval of a grading plan and issuance of a grading permit as included within the discretionary actions covered by the environmental review.

Response

Please refer to Section 3.0 of the DEIR for a complete discussion of the project description, and Response to Comment SFC-1. The 1.5 acre neighborhood commercial center is a component of the proposed project that is evaluated throughout the entirety of the DEIR.

RAT-3

Comment

Given this, an obvious question arises. Where is the grading information? Neither the DSEIR nor the grading study attached as Appendix D includes any specific grading plan. In fact, page 4 of the grading study indicates that the report was conducted at what it terms a "EIR level," and that more detailed evaluation would occur during 40-scale grading plan review. Given the imminence of the grading activities, and their role as the entire cause for the environmental processing, this in inadequate. Title 14, California Code of Regulations § 15147[1] requires an EIR to include technical information "sufficient to permit full assessment of significant environmental effects by reviewing agencies and members of the public." This Project appears to be at a "construction project" level, as that term is used in CEQA Regs. § 15146(a), and consequently deferred analysis of the full range of all effects from the massive grading proposed is inappropriate.

Further, I am advised that the 40-scale grading plan, and other information required to determine and assess the specific impacts of the proposed grading, has not been publicly available, even up until a few days prior to the announced deadline for submission of DSEIR comments. This is a "construction phase" project proposal; it is not a general plan or program EIR. Consequently, all of the specifics of the grading proposal should have been formulated, and available for public review and comment, prior to Project approval. The DSEIR has failed to follow this process. Attached as Appendix "A" is a listing of all "mitigation measures" which defer analysis on various topics until the time of grading permits. Obviously, no grading permit can issue without a specific grading plan, yet that plan was not proffered for public review and comment. Given the large number of other analyses which hinge on the grading information, such information certainly constitutes "significant new information" as that term is used in CEQA Reg. § 15088.5, without which full, adequate public review is impossible The DSEIR therefore must be re-noticed and recirculated after all the appropriate grading and other information has been available for the full comment period.

Response

Please refer to response to comment SFC-1.

[1] Cited herein as "CEQA Regs."

RAT-4

Comment

2. Analysis and incorporation of mitigation measures is improperly deferred.

No doubt in large part due to the failure to have specific grading information available, an entire host of items which require environmental analysis has been improperly deferred. Appendix "A" hereto is a chart of deferred analysis listing the various mitigation measures purportedly imposed upon the Project, but which actually reveal that fundamental aspects of the mitigation of impacts on endangered species such as the Riverside Fairy Shrimp, impacts on the California Gnatcatcher, acoustical analyses, street configurations and lines of sight, drainage studies, and design of storm drain improvements, to name a few.

The environmental impacts of these components of the Project are neither described or assessed, and no readily identifiable mitigation standard for these impacts is adopted. Given this, the conclusions regarding mitigation of the related impacts to a level of nonsignificance is unsupported by any evidence in the record, and therefore fails to meet the standards imposed upon the lead agency under CEQA Regs. § 15091(b).

Response

The comment is noted. DEIR 566 incorporated by reference the entirety of DEIR 561, including all of the technical studies completed for the previous proposal. Any updates required to existing studies will be completed prior to the issuance of the grading permit for the proposed project.

RAT-5

Comment

3. The available grading information demonstrates the Project should not proceed.

Although incomplete, what grading information is included in the DSEIR clearly indicates the Project should not proceed. The entire Project area is underlain by landslides, and excavations reveal heavy seepage (DSEIR 4-31; appendix D, p. 7). In addition, the oldest and deepest landslides on the property are merely projected from "necessarily limited exploratory borings." (Appendix D, p. 8, 16.) This is hardly the type of area which is suitable for the projected 11.5 million cubic yards of direct and remedial grading.

Response

The comment restates information in DEIR 566 and expresses an opinion relative to grading the project site

RAT-6

Comment

Incredibly, the DSEIR identifies 4" to 6" of settlement likely over the graded area. It finds such impacts insignificant, based upon a wildly optimistic presumption that settlement will occur at uniform rate, and occur evenly over a well-distributed area. (DSEIR 4-33.) With all due respect, the courts are filled with multi-party landslide cases, involving millions of dollars of damage, on ground settlement which is considerably less extensive. This effect must be regarded as significant, and must be mitigated.

Response

The comment correctly restates information contained in DEIR 566, and expresses an opinion relative to landslide related lawsuits. Because County of Orange Standard Conditions of Approval require stability following grading, geotechnical impacts will be reduced to less than significant levels, following implementation of all mitigation measures.

RAT-7

Indeed, the grading information in the DSEIR is contradictory. At page 4-24, it is indicated that no blasting is anticipated. Mitigation measure AM 2-33 contemplates blasting of hard cemented sandstone beds, however. If the Project proponent and its consultants cannot at this phase even uniformly identify the grading measures needed, how is the County or the reviewing public to accurately determine the grading impacts from this proposal?

Response

The referenced statement on Page 4-24 of the DEIR is a statement of general conditions encountered during the exploratory drilling phase of the geotechnical analysis. AM 2-33, on Page 4-31 of the DEIR, discusses excavation options should certain earthen materials be encountered during the grading phase of the project.

RAT-8

Comment

Last December, the Board determined this site was not appropriate for a 318-unit development. The comments already submitted by St. Michael's Abbey on grading and soils matters in connection with EIR No. 561 remain fully applicable here, are incorporated herein by reference, and show grading impacts will be significant. These effects remain unmitigated. Obviously, the site remains unsuitable for the far more intense 705-unit proposal now proposed.

Response

Please refer to the Responses to Comments received on DEIR 561. Both DEIR 561 and DEIR 566 contain detailed information on existing site geotechnical conditions, project impacts, and required mitigation measures.

RAT-9

Comment

4. Seismic impacts are improperly assessed.

Appendix D, page 11, seems to dismiss seismic risks to the site, with a generalized discussion of risks inherent throughout Southern California. Given the grading constraints on the property, a more particularized discussion of potential faulting and its potential impacts on the proposed Project are required. Specifically, DSEIR 4-20 lacks any discussion of the El Modena or Norwalk faults, both of which appear sufficiently proximate to the Project site to create seismic disturbances.

Response

No active or potentially active faults have been identified onsite. Primary regional faults which could seismically affect the project site have been identified in Table 7 on Page 4-20 of the DEIR. Mitigation measure SC2-7 reduces potential seismic impacts to less than significant levels.

RAT-10

5. The DSEIR contains a number of improper or vague mitigation measures.

In order to meet legal requirements, a mitigation measure must have a readily identifiable, performance-based standard which must be met. A number of the mitigation measures in the DSEIR fall short of this requirement.

For example, AM 2-22 merely contains advisory language that certain types of rock are "best not incorporated" in fills. AM 2-27 contains only recommendations, and no requirements. AM 2-45 calls for "precautions in respective expanse of soils, "which is vague, and should be further specified.

Mitigation measure SC 2-4 simply cannot be met. The DSEIR recognizes the incompatibility of the Project with O'Neill regional Park. (See DSEIR 4-12.) The degree of required grading eliminates any compatibility with natural land characteristics of adjacent open space areas, making compliance with this mitigation measure impossible.

Response

Mitigation Measures AM 2-22, AM 2-27 and AM 2-45 are standard Soils Engineer recommendations which supplement the County's standard conditions of approval to identify potential geotechnical constraints. Mitigation Measure SC 2-4 will ensure that the transition between the project site grading and adjacent sensitive land uses is as compatible as possible. Other PDF, SC and AM mitigation measures will ensure an adequate transition between proposed grading and adjacent land uses.

RAT-11

Comment

6. A number of significant environmental impacts are improperly addressed.

The DSEIR is also rife with inaccurate or contradictory information in assessing environmental impacts, and concludes they are insignificant. For example, the hydrology study listed in Appendix L appears to have been done for a 318-unit proposal, not the 705-unit proposal listed in the project description. (See hydrology map and "Discussion" text in Appendix L.) DSEIR 4-39 contains an admission that the drainage analysis is inadequate, in stating that it may need to be updated after review of the 40-scale rough grading plans. The preliminary master plan of storm drain improvements listed in PDF 3-1 (DSEIR 4-41) references a tentative map 15230, not the Project, and is essentially unreadable. This map gives no legible reflection of what drainage facilities will be built, where, and no narrative or other graphic summary providing any further explanation appears in the DSEIR. All these studies need to be redone to analyze the Project now proposed.

Response

PDF 3-1 does not reference any Tentative Tract number. Hydrology analysis and data contained within the DEIR evaluates the effects of implementation of the proposed project on onsite hydrology. Baseline hydrology information contained in DEIR 561 remains applicable to DEIR 566.

RAT-12

Comments

Regarding noise, DSEIR 4-110 assesses noise from a projected 3,780 daily Project trips. DSEIR 4-52 indicates the daily trip projection is 6,220. The conclusions regarding vehicular noise are therefore suspect, and should be redone. In addition, DSEIR 4-113 indicates that air conditioning units are standard for housing projects, but fails to require such units as a mitigation measure for exterior noise. This should be included as a mitigation measure. IN addition, the entire acoustical analysis appears to be deferred (see DSEIR 4-115). IT should be conducted now.

Response

Please refer to the Introduction on page I-1 of this report for an explanation of timing for mitigation implementations. The reference to 3,780 daily trips is a typographical error. The acoustical analysis was not deferred and is based on the current traffic study completed for the 705 unit manufactured housing project. Although the County of Orange may require the installation of mechanical ventilation units as part of the building permit process, air conditioning units are normally a market driven feature.

RAT-13

Comment

Most strikingly, the DSEIR completely "ducks" impacts to the Riverside Fairy Shrimp, Coastal Sage Scrub habitat, and the California Gnatcatcher. DSEIR 4-152 indicates 105 acres of off-site mitigation will be reacquired, but the availability or location of this mitigation property receives no discussion. DSEIR 4-157 delays the Gnatcatcher survey until some future time, and fails to provide the County or the reviewing public sufficient information to determine Gnatcatcher impacts from the Project whose approval is sought.

Response

Please refer to Response to Comment USFWS-3 and USFWS-16. Section 4.7.6 of the DEIR, beginning on Page 4-151, outlines a comprehensive mitigation program required to mitigate the impacts to onsite biological resource as a result of project implementation.

RAT-14

DSEIR 4-199 indicates a population generation estimate of 2.57 persons per household. The fiscal study, in Appendix G, page 22, uses 2.4. This inconsistency should be reconciled.

Response

The official County of Orange average household population is 2.57 persons/dwelling unit. The population generation factor (2.4 persons per dwelling unit) used in the fiscal impact report, contained in Appendix G of the DEIR was obtained from the California Department of Finance, based on January 1996 data. As of January, 1996 there were 179,571 residential units within the unincorporated portions of the County, containing 74,842 residents, with an average of 2.4 persons/dwelling unit.

RAT-15

Comment

Regarding transportation, the DSEIR notes the nearest bus stop is between 2.25 and 2.5 miles from the Project site (DSEIR 4-52.) This is completely inconsistent, with the proposed

affordable nature of the housing development, whose residents are likely to be more heavily reliant on public transportation. Extension of service or alternative project locations should therefore be analyzed. There is no separate analysis of the traffic, noise, or air quality impacts of the buss which will be required to transport the estimated 399 additional students which will come from the Project, to already overcrowded schools. (DSEIR 4-218.) More fundamentally, students, all the while acknowledging current classrooms are overcrowded. DSEIR 4-216 contains a number of ambiguous conclusions regarding impacts on sheriff, fire, education, and library services. The double negative wording of these sentences seems to indicate each may have a significant impact, none of which is mitigated.

Response

The Orange County Transportation Authority (OCTA) routinely adds public transit lines and stops to their system to accommodate demand. Project related effects on Public services and utility systems are evaluated in Sections 4.12 and 4.13 of the DEIR, beginning on Page 4-209. The OCTA which has reviewed the subject EIR, has not requested or recommended bus facilities in conjunction with the proposed project.

RAT-16

Comments

7. The alternatives analysis is insufficient.

CEQA Regs. § 15126(d)(5)(B) calls for review of alternative locations, or finding regarding the infeasibility of alternative locations. The DSEIR fails to address alternative locations.

Response

As outlined in *Goleta II,-Citizens of Goleta Valley v. Board of Supervisors, (1990) 52 Cal. App.3d 553*, alternative site analysis is not warranted for certain types of projects, including those where the applicant has vested development rights based on an approved specific plan and a recorded tract map. Alternative site analysis is appropriate for projects with other viable site options. Several alternatives to the proposed project were evaluated in both DEIR 561 and DEIR 566.

RAT-17

Comment

The alternatives discussion contains inappropriate language suggesting some sort of legal obligation for the county to refund various payments, many of which we understand were made by the Project applicant's predecessor in interest, and not the applicant itself. While we have not conducted a legal analysis of these somewhat unusual claims, we have been informed that many of the water and other development impact credits resulting from these previous payments are fully transferrable, and could be marketed by the owner of the Project at any

time. Consequently, he statement regarding any obligation for refunds in the even to consideration of a "No Project" alternative appears incorrect factually, let alone irrelevant to the environmental analysis the DSEIR purports to be undertaking.

Response

Under the Alternative 1 discussion on Page 6-4 of the DEIR, previously paid development fees, utilized to construct capital facilities, are listed, documenting the total expended by the applicant to date. Implementation of the No Project Alternative would not require any infrastructure, and as such, would require a refund of fees previously paid for site infrastructure.

RAT-18

Comment

The DSEIR makes clear that the "No Project" alternative is the environmentally superior choice. Consistent with prior representations it has made, however, the Abbey has no objection to the 100-unit proposal, currently listed as Alternative 3. The Abbey believes this represents a sound balance between the environmental constraints on the site, and the Project proponent's desire for some degree of development on the property.

Response

The comment states the commentator's preference for Alternative 3, the 100 unit alternative.

RAT-19

Comment

8 The DSEIR's land use planning presumptions are inaccurate.

Although not precisely related to environmental impacts, the DSEIR contains a number of statements regarding land use entitlements the Abbey believes are inaccurate. The proposed Project is not, as the DSEIR asserts, essentially exempt from the Foothill Trabuco Specific Plan ("FTSP"). (DSEIR 4-4, 4-11). The Growth Management element of the county's General Plan was last revised on October 19, 1993, after the adoption of the Foothill Trabuco Specific Plan in 1991. This element is the self-described "key resource document for growth management concerns." Subsection (E) (6) requires that all new development within the Foothill Trabuco Specific Plan planning area "shall be rural in character, and shall comply with the policies of the [Foothill Trabuco Specific Plan] ... in order to maintain a buffer between urban development and the Cleveland National Forest," The Project is clearly contrary to these goals, does not comply with FTSP standards, and is therefore inconsistent with the General Plan

Moreover, the Project is not "exempt" from FTSP requirements even under the terms of the

Specific Plan. Section 3.2(c) of the Bridlewood Residential District Requirements specifically indicates CEQA review is required prior to the issuance of grading permits for the previously-approved map. Consequently, additional discretionary review and approval was specifically contemplated prior to the time the Project was to be implemented. Any contention of "vested rights" from the filing of he the map is therefore inappropriate.

Response

Please refer to Sections 3.0 and 4.1 of DEIR 566 for a complete discussion of the consistency of the proposed project with land use policy documents. As documented, the proposed 705 unit manufactured housing project is consistent with the Foothill Trabuco Specific Plan and the countywide General Plan. The Growth Management Element of the OC General Plan assumes the development of the 705 unit project.

RAT-20

Comment

In addition, there is some question regarding the validity of the map in the first instance, given the chronology which the DSEIR lists. The map was apparently approved in December of 1979, and recorded some nine years later, in December 1988. The chronology points out that the last stay was granted only until July 24, 1986. There is no indication, at least in the chronology, that the County approved any further extension. What was recorded therefore very may well have been an expired map, which would vest no development rights whatsoever, regardless of any claimed FTSP "exemptions."

Response

Tentative Tract Map 10692 was recorded December 16, 1988, in accordance with the requirements of the County of Orange in effect at that time. The FTSP recognizes the legal status of the recorded Tract Map.

RAT-21

Comment

9. Conclusion.

Even without all the defects listed above, the DSEIR concludes a number of significant impacts are unmitigated, including land use impacts and grading impacts. Given this, the Project approval will require a Statement of Overriding Considerations, which the Abbey believes is wholly insupportable in this context.

Put simply, the Project is inconsistent with the Abbey and the neighboring Ramakrishna Monastery. With all due respect to housing needs, the Abbey submits that the roles the Abbey and Monastery plan, and the services they provide, are unique assets in Orange county. The Abbey would hope that the County would value these assets more than another in what

many consider to be all-to-common residential developments, and not issue a Statement of Overriding Considerations condoning the Project's inconsistency with surrounding land uses.

Whether seriously proposed in its own right, however, or merely as a backdrop to make a previously-rejected project appear more palatable, the DSEIR is insufficient to support the Project approval sought. For this reason, the Abbey respectfully requests the County to fail to certify the DSEIR, and to reject any grading applications, or other development permits, which may be sought pursuant to it.

St. Michael's Abbey thanks the County for the opportunity to respond to this DSEIR, and looks forward to working with the county and the applicant on a more environmentally sound Project proposal.

Response

Please refer to response to comments RAT-1 through RAT-20.

COMMENTS AND RESPONSES - SFC CONSULTANTS/Saundra F. Jacobs, REA, Principal, August 22, 1997

SFC.2-1

Comment

SFC Consultants (SFC) has reviewed the Saddleback Meadows Draft Subsequent EIR 566 ("DSEIR 566" or "EIR") for CEQA compliance and consistency. SFC understands that the County of Orange required DSEIR 566 to be prepared as a result of a grading permit application having been submitted by the developer of the Saddleback Meadows project for the construction of grading improvements for 705 manufactured single family dwelling units with concomitant infrastructure and utilities on approximately 222 acres.

Before getting into the details of the EIR adequacy, some very basic concerns about this DSEIR 566 should be enumerated. First, although the filing of the grading permit application appears to have been the event which triggered the preparation of DSEIR 566, the 40-scale grading plans upon which the permit application is based have not been made available for public review, nor has the geotechnical review of those plans been made available. In addition, these materials have not been addressed in or made a part of DSEIR 566. As a result, a full assessment of the construction level impacts of the project has not been done as required by CEQA.

Response

Please refer to response to comment SFC-1.

SFC.2-2

Comment

Second, whether or not the project analyzed in this DSEIR 566 is a grading plan application or the basic development plan, it is extremely important for this EIR to provide as much detail as possible in discussing environmental impacts and providing relevant mitigation measures. Gathering further information and complying with resource agencies in the future is not proper mitigation. However, this type of mitigation is listed throughout the EIR> exactly 51 of the 200 EIR mitigation measures are based on "Prior to Grading Permit" timing. It is important for the Planning Commission to realize that at this late stage in the development, many of the required mitigation measures should be formulated and be subject to public scrutiny now, not at a later date after the EIR has already been certified.

Response

Please refer to the Introduction section of this document and response to comment SFC-1 for a discussion of the planning process associated with the grading application and the related timing of mitigation measures.

SFC.2-3

Comment

Third, the geotechnical section of the EIR is also riddled with references to "gathering future information as mitigation measures". This may be acceptable if the environmental issue remains significant after mitigation; however, the EIR states that the geotechnical mitigation will mitigate any future and unknown impacts to less than significant levels. This is not a realistic conclusion considering future unknown impacts. A geotechnical review of the grading plans is the mechanism with which we can be assured that the mitigation measures recommended will actually work.

Response

Please refer to response to comment SFJ-1.

SFC.2-4

Comment

Fourth, the traffic section of the DSEIR arbitrarily limits its review and impact analysis of intersections to the El Toro Road/Santa Margarita Parkway intersection and intersection to the north thereof. No analysis has been presented for critical intersections to the south. Also, there is no indication in the traffic study if the traffic calculations have been adjusted to account for the difference in projected use versus actual use of the Foothill Corridor. Published reports indicated that the San Joaquin Corridor's projected usage was overestimated by nearly 50%. The DSEIR should include all intersections that will be impacted by 705 units, including El Toro Road and the San Diego Freeway (I-5), and especially if the Foothill Corridor estimates are similarly overstated. In addition, not withstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the traffic impacts from the reuse of the El Toro MCAS as a commercial airport. It is also not clear from the DSEIR if the regional traffic model utilized for the project impacts, and cumulative project impacts, actually incorporate the regional changes to the traffic resulting from a commercial airport at El Toro

Response

Please refer to responses to comments CMV-01 through CMV-09.

SFC.2-5

Comment

Fifth, the DSEIR provides a baseline discussion of the impacts from the El Toro MCAS fly-overs. However, the impact section of the EIR fails to identify a noise analysis or potential CNEL contours as a result of the base reuse plan as an active commercial airport. No

mitigation measures are included for a multiple fly-over commercial airport. Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the noise impacts from the reuse of the El Toro MCAS as a commercial airport or the regional traffic noise associated with the commercial airport. The DSEIR states "Depending upon future site re-use, aircraft noise may or may not be an important issue." The aircraft noise from a commercial airport at El Toro will be an important issue and must be addressed in the DSEIR.

Response

MCAS El Toro reuse plans have not been finalized, and as such, noise analysis associated with the reuse would be speculative. However, it is acknowledged that subsequent to the closing of MCAS, the potential exists for the development of a civilian airport on the MCAS site. Draft EIR 563 "MCAS El Toro Re-Use," which was certified on December 11, 1996, analyzed the impacts associated with such a use. Depending on the configuration of a future civilian airport, the potential exists for on-going impacts. Draft EIR 566 contains sufficient mitigation measures to effectively mitigate all potential current and future noise impacts.

SFC.2-6

Comment

Sixth, it is also important to note that the biological mitigation for ACOE and CDFG coordination may change the site plan, which would then require a revised EIR. If site plan redesign is not feasible, then the EIR should point out where the off site mitigation locations will be. In addition, the EIR indicates in several places that mitigation measures cannot be implemented by changes to the grading plan because this proposed project is a legally recorded tract map. However, under the Federal Endangered Species Act, all "take" must be accommodated, regardless of tract recordation or not.

Response

Please refer to Section 4.7 of the DEIR for a discussion of project related impacts to biological resources. Also refer to the introduction section of this document for a complete discussion of the planning process associated with the grading application, and the related timing of mitigation measures.

SFC.2-7

Comment

Seventh, the alternatives in the EIR should reflect alternative grading scenarios together with the comparable grading impacts associated with them. DSEIR 566 alternatives currently compare alternative land uses or densities, although these tend to be limited to different grading scenarios. Also, CEQA requires an alternative location to be discussed. This issue is missing in the EIR and should be included.

Response

Each of the alternatives evaluated in the DEIR contain a grading scenario different from that of the proposed project. Please refer to response to comment RAT -16 regarding alternative location.

SFC.2-8

Comment

Eighth, the EIR mitigation measures are also plagued with the word "should" instead of "shall". "Should" mitigation measures will become "shall" upon certification of the EIR. If the lead agent is not sure of a mitigation measure's applicability at this stage of approval, then perhaps the lead agent does not really want to implement important mitigation measures, but simply provide the necessary environmental paper work for a recorded tract map.

Response

All *should* wording contained within mitigation measures is hereby changed to *Shall*. Please refer to Section II of this document, Corrections and Additions to the DEIR.

SFC.2-9

Comment

Finally, the Planning Commission should keep in mind, that this recorded map for 705 units does not tie the County to instant EIR certification, in which CEQA simply becomes a necessary evil. CEQA allows for a public agency to not approve a project as proposed, if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment (CEQA Guideline Section 15021) The Planning Commission can only override unavoidable adverse impacts if it finds that there are legitimate social, economic, or other considerations which truly outweigh such impacts. Simply implying that affordable housing is an overriding consideration is insufficient to justify the significant environmental effects of the project.

Response

The comment restates provisions of CEQA related to alternatives, mitigation and overriding considerations.

SFC.2-10

Comment

CEQA Guidelines Section 15161 indicates that "The EIR shall examine all phases of the project including planning, construction, and operation". A phased project must be evaluated

in light of each phase. The first sentence of Section 1.0 Executive Summary, Subsection 1.1, page 1-1, describes the project as "the phased development of 705 manufactured single family housing units..." yet the EIR states on page 3-16, Section 3.4 Project Phasing that grading will occur in one phase. This statement, in turn, appears to be at odds with the reference (in Table 3 on page 2-8 of the EIR) to the developer's submittal of an application for "Phase I Grading Plan" on December 3, 1996. Therefore is the grading being phased, or is the construction being phased? If the grading is phased, a phasing plan should be submitted with the EIR distribution and review. DSEIR 566 should describe what the grading phases are, including how much grading in Phase I, II, III etc. A Phasing Plan should be included as part of this DSEIR, and not just be made another condition of approval. Moreover, if residential construction is also being phased in addition to the grading, this needs to be spelled out and addressed in the DSEIR. The Planning Commission cannot certify a DSEIR having such piece-meal information on grading and phasing.

Response

As stated in the DEIR, all grading will be completed in one continuous phase. Only the first portion of the grading plans, referred to in the DEIR as *Phase 1* grading plans, have been submitted in conjunction with the grading application.

SFC.2-11

Comment

Section 2.0 Introduction

Technical error: Page 2-7, Table 3 chronology of June 13, 1984: Ordinance 3486 should read - Ordinance 3468.

Response

Error noted and correction incorporated into Final EIR. Please refer to Section II of this document, Corrections and Additions to the DEIR.

SFC.2-12

Comment

Page 3-8, first paragraph. The project description indicates that the removal of the mandated Inclusionary Housing Program requirements could undermine the County-wide calculation used to eliminate the affordable housing mandate. This statement on the surface may seem valid enough, but there is no factual evidence in the EIR to support such speculation. Instead of mere speculation, the DSEIR should include a thorough discussion of housing issues, including the possibility of eliminating the need for affordable units and allowing for a more environmentally sensitive project to be considered.

Response

A thorough analysis of housing issues associated with the affordable housing provisions associated with recorded tract 10692 is beyond the scope of analysis of DEIR 566, and is not warranted

SFC.2-13

Comment

Page 3-8, Project Features, indicates that a 1.4 million-gallon water tank would be required for this project of 705 units. EIR 561, which analyzed 318 units, also required a 1.4 million-gallon water storage tank. The quantity of fire flow, and stored water necessary for the 705 units therefore appears inconsistent. If two 1.4 million-gallon tanks, or one 2.8 million gallon tank are required, this would significantly increase either the size of the tank location for two tanks, or the amount of grading and screening that would be needed for an increased tank size. The water tank site is owned by the Trabuco Canyon Water District, however, Mr. Bruce Bonner, General Manager of the District was not aware of the discrepancy, and was planning to comment on the EIR for the proper information. Without the proper water storage available for 705 units, the project could not be developed and the DSEIR could not be certified. The extent of grading for the increased tank size and its location must be addressed in the DSEIR. Changing the size of the tank size will also require an amendment to the original Recorded Tract Map. Once the County receives this information, a revised section for review and comment by the public should be prepared.

Response

The water tank site was part of the project site and was dedicated to the Water District, in conjunction with recordation of TT 10692. The 1.4 million gallon water tank has been sized to serve a larger area than the proposed project, and remains adequate to serve project related fire flow and domestic service demand requirements.

SFC.2-14

Comment

Page 3-16, Project Phasing: Project grading is noted as being implemented in one phase, but this does not square with the fact that the developer has only submitted 40-scale grading plans for "Phase I" of the project which, apparently, only involves a portion of the proposed 705 units. This inconsistency should be resolved because, obviously, if the grading is to occur in several stages, instead of in "one phase," then the grading impacts would occur over a much longer period of time than the 18-month estimate set forth in the DSEIR.

Moreover, if the EIR shows and states the grading in one phase, then the entire grading plan at 40 scale should be made part of the Appendices to the EIR or, at the very least, the grading plans (and the geotechnical reports needed to fully understand them) should be incorporated

by reference so that members of the public could review them. Either solution will require DSEIR 566 to be revised and recirculated in accordance with CEQA Guidelines Section 15088.5.

The Project Description has inaccurately depicted the project phasing. CEQA Section 15126 requires a complete project description, including all phases, and should be included for review with this DSEIR. Since it appears that the grading will be in phases, this project description is not consistent with CEQA Guidelines Section 15126 and cannot be certified as adequate.

Response

Please refer to response to comment SFC-1.

SFC.2-15

Comment

Section 4.0 Existing Conditions, Project and Cumulative Impacts, Mitigation Measures and Level of Significance After Mitigation:

Section 4.1 Land Use/Housing

Notwithstanding the requirements of CEQA Guidelines Section 15126(c), the EIR makes no attempt to explore feasible measures to mitigate land use impacts to surrounding areas. Suggested land use mitigation should include: Setback criteria, buffer zones of vegetation, pet restrictions, ridgeline protection, project phasing coupled with an Annual Monitoring Report under Zoning Code Section 7-9-103.2(a)(12) to identify imbalances between development and infrastructure, etc. These new mitigations should be included in a revised draft EIR and recirculated for public review and input.

Response

Please refer to response to comment SFC-1 and sections 2.0, 3.0 and 4.1 of the DEIR for a discussion of the recorded tract map.

SFC.2-16

Comment

CEQA Guidelines Section 15131 (b) expressly recognizes that construction can adversely impact religious practices: "if the construction of a road and the resulting increase in noise in an area disturbed existing religious practices in the area, the disturbance of the religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environment". While the Land Use/Housing section of the EIR indicates that the impacts would remain significant,

unavoidable and adverse, there is no attempt to mitigate impacts on surrounding religious uses to any level at all.

Response

Mitigation measures are proposed throughout the DEIR to reduce/eliminate adverse impacts to surrounding land uses. These mitigation measures are summarized in Section 7.0 of the document.

SFC.2-17

Comment

Section 4.2 Soils and Geology

Although SFC was not able to gain access to any of the current grading plans at the County, SFC has learned that, for a price, the developer made copies of such plans available to certain interested parties and that the plans showed only half of the grading that is proposed for the 705-unit project. As stated above, if the rough grading (including all remedial grading) is to be accomplished in one phase, then the plans showing all the grading work to be performed should be made available for public review and DSEIR 566 should be revised and recirculated to incorporate such plans and all related geotechnical reports. This is particularly important with respect to the remedial grading improvements, (which account for the vast majority of the rough grading operations) because mitigation measures, such as shear keys, cannot be property evaluated without the grading plans and soils reports, and cannot be constructed in a piecemeal fashion without the risk of slope instability.

Response

Please refer to response to comment SFC-1.

SFC.2-18

Comment

Page 4-16, Ground Water: It appears from the State Water Resources Board map of wells in the area that there are at least five wells located northerly, westerly and southerly of the site and landslide areas. These wells depend on the groundwater supplies to remain in operation. During remedial grading, perched groundwater and saturated zones will be encountered (according to the geotechnical study). This excess groundwater will require pumping to a point to where the bottom layer of the 120-foot key cut will need to be cleaned out. The EIR does not discuss the high probability that this excessive pumping may impact groundwater and groundwater recharge to these surrounding wells. Impacts to groundwater and surrounding wells is considered a significant impact in CEQA Guidelines Appendix G(h) and (I). The EIR provides neither discussion of this important issue, nor any mitigation for potential impacts

to these wells. While the EIR preparer, or the geotechnical engineer for the project, may speculate that the surrounding wells are being fed by Aliso Creek or "other groundwater", **there is no factual basis to support the conclusion that there will be "no significant groundwater impact" caused by project grading and development.** The Planning Commission must be provided with complete information on this issue before passing on the adequacy of DSEIR 566, and gathering groundwater information during remedial grading for future decisions, and complying with the water resource agencies, is not the proper way to proceed.

Response

The comment is speculative. All grading and any required groundwater pumping will be conducted in compliance with Orange County Grading and Excavation Code requirements.

SFC.2-19

Comment

Page 4-24, last two paragraphs. These paragraphs state that "unfavorable conditions (i.e. "Some ground water") can be mitigated by implementing corrective grading concepts". Yet the DSEIR only speculates on the mitigation necessary to truly lessen future impacts to the development from groundwater and postpones for future analysis whatever specific mitigation measures might eventually be proposed by the soils engineer for the project (see page 4-25). This is not in keeping with CEQA.

Once the shear keys are cut on the project site, the DSEIR indicates that subdrains will be required. Subdrains and dewatering facilities are permanent features, and are notoriously unreliable. This was the case in the Hidden Hills development located immediately adjacent to the south of this site, and is the proposed location of the emergency access to Saddleback Meadows. In this study, the buttress subdrains failed, or in most cases the subdrains were missing and groundwater backed up behind the buttress fill, severely impacting the residences and infrastructure. To truly mitigate geotechnical impacts to less than significant levels, and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendations should be included in this DSEIR prior to certification. In addition, if in fact the subdrains are only to work temporarily, the DSEIR does not explain to where these subdrains will drain. It is presumed that these features will drain to Los Alisos Creek, which is shown as a blue line on the USGS Quad Map. The EIR should discuss the impact of a permanent alteration to the flow of Los Alisos Creek. A higher degree of specificity on this important issue is required prior to EIR certification.

Response

DEIR 561 and DEIR 566 contain a comprehensive discussion of geotechnical and hydrology impacts associated with the proposed project. Please refer to Sections 4 2 and 4.3 of these documents.

SFC.2-20

Comment

Page 4-25, Mitigation Measure 2-1, state that "A comprehensive remedial grading mitigation plan has been designed to stabilize the project site..." yet on page 4 of the G.A. Nicoll and Associates report in Technical Appendix D, Mr. Nicoll's firm indicates that "a more detailed evaluation" of slope stability issues has yet to be completed and will be conducted as part of the geotechnical review of the 40-scale grading plans. This underscores the fact that only vague and general "concepts" about grading mitigation measures are referenced in DSEIR 566 even though CEQA Guidelines Section 15146 would require a much more detailed and specific discussion of grading impacts and mitigation at this construction-level stage of the project. The mitigation measures listed in this section of the DSEIR are general, boilerplate statements about what information is yet to be gathered and they **do not** represent "a comprehensive remedial grading mitigation plan". The seminal question which remains unanswered is whether DSEIR 566 is intended to be used as the environmental documentation to support the issuance of one or more grading permits for the project or does the County intend to require yet another Supplemental EIR to be prepared to address the grading mitigation measures which are still being analyzed by the project soils engineer? If DSEIR 566 is intended to support the issuance of grading permits, then the construction-level plans and reports necessary for the permits to be issued must be in the EIR itself, instead of being the subject of speculation as to what will be determined at some future date.

Response

Please refer to response to comment SFC-1.

SFC.2-21

Comment

Page 4-27, Mitigation Measure 2-3. This mitigation is unnecessarily vague as to who the "decision-maker" is (the Board of Supervisors? The Planning Commission?), and it is also misleading for the public. CEQA Guidelines Section 15162 states that a subsequent EIR is necessary if "Substantial changes are proposed in the project..." (In this case any substantial change to the grading plan). If the applicant "deviates" from the recorded tract map grading to such an extent that the project has changed and a new application must be submitted per the zoning code, then a subsequent EIR will be required for public review of the changed project. In addition, as the current geotechnical mitigation measures are worded, a subsequent EIR would be required if conditions are exposed during grading which are significantly different from those described in the project description or geotechnical report. As indicated on page 16 of the Nicoll report. "In the event that during construction, conditions are exposed which are significantly different from those described in this report, they should be brought to the attention of the Soil Engineer." Preparing a Subsequent EIR for changed conditions during remedial grading would not be feasible, therefore sufficient

detail must be included with the DEIR and recirculated for public review. The mitigation measure should be revised to reflect this change.

Response

The decision maker, in this case, is the Orange County Grading Official. Please refer to Section II of this Document, Corrections and Additions to the DEIR. Also refer to response to SFC-1. Grading permit authorization is an administrative determination.

SFC.2-22

Comment

Page 4-27, Mitigation Measure 2-4, is not enforceable unless the Planning Commission requires that the EIR show how the graded areas will be compatible with natural land characteristics of the adjacent open space. Future gathering of information is not proper mitigation for a significant impact.

Response

Mitigation measure SC 2-4 is a standard county condition, applied to numerous projects, and is enforceable, under CEQA and California planning and zoning law..

SFC.2-23

Comment

Page 4-29, Mitigation Measure 2-16, the back cut failure guidelines should be provided now for a construction-level grading permit application EIR. This project is already approved with a recorded map. Therefore, a higher level of detail is essential to demonstrate the overall feasibility of the recommended grading techniques. The criterion the project applicant has to follow is to mitigate impacts to less than significant levels and demonstrate that the mitigation measures are adequate under CEQA. The DSEIR has not accomplished this yet.

Response

Please refer to response to comment SFC-1

SFC.2-24

Comment

Page 4-29, Mitigation Measure 2-20. Ponding will be necessary as part of the dewatering process and within Best Management Practices for Regional Water Quality Control Board requirements. This mitigation measure should be amended to reflect actual ponding that will be necessary and the possibility of Vector Control Permits.

Response

The comment is speculative. Ponding may or may not be required depending on subsurface conditions encountered.

SFC.2-25

Comment

Page 4-31, Mitigation Measure 2-34. Ironically, this so-called "mitigation measure" provides more detailed information regarding groundwater problems and dewatering than any discussion set forth in the text of DSEIR 566. Although page 4-24 of the text merely alludes to "some" ground water that might be encountered during grading, this mitigation measure paints a far more graphic and alarming picture. **"Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher elevations as well as in cuts made late in the year."** As indicated above, groundwater wells are located adjacent to the site and landslide areas. Impacts to surrounding groundwater and groundwater wells from required pumping and dewatering are not even discussed in the text of the DSEIR, yet this mitigation measure appears to expect it. Again, the DSEIR does not, but certainly should, discuss the extreme likelihood that this excessive pumping may impact groundwater wells and groundwater recharge to these surrounding wells. Impacts to groundwater and surrounding wells are considered a significant impact under CEQA. The Planning Commission must be provided with enough factual information before it is asked to certify this EIR. Gathering groundwater information during remedial grading is not proper mitigation.

Response

Please refer to response to comment SFC-1

SFC.2-26

Comment

To truly mitigate geotechnical and groundwater impacts to less than significant levels, and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendation on grading, dewatering and impacts to groundwater and groundwater wells should be included in this DSEIR prior to EIR certification. This DSEIR requires a higher degree of specificity on this important issue prior to EIR certification.

Response

Please refer to response to comment SFC-1.

SFC.2-27

Comment

Page 4-33, Section 4.2.7 of **the DEIR should be changed to read "Implementation of this proposed project, with the mitigation measures outlined above will result in unavoidable adverse geotechnical impacts."** At a minimum, there are significant groundwater impacts and slope stability issues that have not been adequately discussed or mitigated in DSEIR 566 and revision and recirculation of the DSEIR is in order to allow public comment on these matters when they are completed.

Within the Technical Appendix D, page 4, Mr. Nicoll's firm indicates that this geotechnical review is for an EIR level of analysis, and that subsequent analysis will be necessary. However, the "EIR level" soils report in Appendix D does not provide the required specificity for the considerations outlined in the DSEIR, including impacts of dewatering during and following construction, slot cutting or staged excavation to assure on-going support of landslide masses to be stabilized, backcut forecut slope inclinations, and dewatering criteria. A grading plan review report should include all recommendations and geotechnical criteria necessary to undertake and complete all remedial grading improvements and measures, and it should be included as part of DSEIR 566 and circulated to the public. The Planning Commission cannot, without uncertainty, approve this project under the premise that the impacts are mitigated to less than significant levels. If planning staff chooses to amend the DSEIR to show that significant grading impacts will remain after mitigation, then the introduction of new information will trigger recirculation of the EIR per CEQA Guideline Section 15088.5(a).

Response

Please refer to response to comment SFC-1.

SFC.2-28

Comment

Section 4.3 Water/Hydrology

EIR 566 appears to utilize the hydrology map from EIR 561 without changing the underlying site plan. While the existing drainage will not change regardless of the site plan, the post development drainage will change from EIR 561 to EIR 566. DSEIR 566 does not include post development drainage circulations. The DSEIR needs to correlate existing versus post-development change in cfs and % in order for the Planning Commission to base its decision on the storm drain improvement plans that were approved in 1988. This subsequent EIR should incorporate all pertinent information and re-verify the prior calculations and not rely solely on County approvals from 1988.

Response

The comment is incorrect. Exhibit 22, Conceptual Drainage Plan, uses the proposed 705 lot manufactured housing project as the base map.

SFC.2-29

Comment

Page 4-39, Table 10 does not correspond with Exhibit 22 as far as proper labeling of the storm drains. If there are not accurate, the Planning Commission should require updated concepts to verity mitigation measures.

Response

Storm drain reference numbers are hereby added to Exhibit 22, *Conceptual Drainage Plan*, that correspond to Table 10. Please refer to Section II of this document, Corrections and Additions to the DEIR.

SFC.2-30

Comment

Page 4-38 The EIR states that alterations of the rate of flow of groundwater or impacts to groundwater quality are considered to be insignificant. The geotechnical report indicates that groundwater and saturated zones will require dewatering during grading and excavation of the sheer key. Groundwater from these slide planes will require pumping for an undetermined period of times (as demonstrated in Mitigation Measure 2-34). At least five (5) groundwater wells are located near this project site, directly in the path of the groundwater flow. The geotechnical report has completely disregarded the impacts that may be incurred downstream during construction dewatering. **This EIR section should consider impacts to groundwater as significant,** otherwise the Planning Commission should not certify this EIR with an incorrect impact finding.

Response

Impacts to groundwater quantity/quality, as a result of grading operations, will be mitigated by standard County condition of approval SC 2-6 and mitigation measure AM 2-34..

SFC.2-31

Comment

Page 4-41, Mitigation Measure 3-1 indicates that the master drainage concept is included as Appendix L. However, upon closer evaluation of the site plan in Appendix L, it appears that the post development calculations are for the smaller 318 units (EIR 561) project. This EIR

cannot be certified as adequate with erroneous information pertaining to a much smaller project.

Response

Information contained within Section 4.3 of the DEIR, beginning on Page 4-33 contains a comprehensive evaluation of impacts to Water/Hydrology, including the master drainage concept for the proposed project. It should be noted that all information, including the appendices, from DEIR 561 have been incorporated into DEIR 566 by reference.

SFC.2-32

Comment

Page 4-42, Mitigation Measure 3-5. How and why is this mitigation important to reducing hydrologic impacts to less than significant levels? What if the upstream and down stream property owners do not sign or agree to a letter of consent? Does the Manager, PDS/Subdivision and Grading Services Division override the property owner and allow consent? The mitigation measure is not enforceable and does not reduce impacts in any way. It should be deleted.

Response

Mitigation measure SC 3-6 is an adopted County Standard Condition of Approval, and is applicable to the proposed project, subject to the approval of the Manager, PDS/Subdivision and Grading Services Division.

SFC.2-33

Comment

Page 4-42, Mitigation Measure 3-6 indicates participation in a Master Plan of Drainage prior to issuance of any building permits. Preparing a master plan of drainage after the grading has been completed does not allow the County or the public to comment on proper hydrologic calculations. As indicated in the above comment to mitigation measure 3-1, the master drainage concept included in Appendix L was prepared for the smaller 318 units (EIR 561). The master plan of drainage should be submitted with and incorporated into the DSEIR for recirculation and public review.

Response

The Master Plan of Drainage referred to in SC 3-6 is an existing county master plan and not subject to negotiation by the applicant SC 3-1 through SC 3-7 outline the hydrology/drainage requirements that must be satisfied prior to the issuance of grading permits.

SFC.2-34

Comment

Page 4-42, Mitigation Measure 3-7 indicates that impacts to the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques. However, the mitigation measures and analysis leading to the measures must be commensurate with the specificity required for a construction-level grading permit application EIR. There is no guarantee that implementation of this mitigation measure will result in insignificant impacts to this environmental issue. Therefore **this impact should be changed to potentially significant after mitigation** because the mitigation measure is not specific enough to conclude otherwise. The mitigation measure is too speculative for future hydrology of a site, particularly with the wrong hydrology report in the DEIR. In addition, there is no timing associated with implementation of this mitigation measure.

Response

Please see response to SFC-1. Timing associated with mitigation measure SC 3-7 is prior to the issuance of any grading permit, similar to other hydrology related SC mitigation measures.

SFC.2-35

Comment

Page 4-43, Section 4.3.7. indicates that implementation of the proposed mitigation measures would result in no unavoidable adverse impacts to groundwater hydrology, yet there is no information on impacts to downstream wells from excessive dewatering to support the less than significant impact. This conclusion should be changed to **potentially significant impacts will result after implementation of the mitigation measures.** In addition, the new information associated with the new finding will require recirculation of DSEIR 566.

Response

The referenced statement regarding no unavoidable adverse impacts to groundwater hydrology is valid, and is supported by information contained in Sections 4.2 and 4.3 of the DEIR and DEIR 561 which has been incorporated be reference, in conjunction with standard county conditions of approval.

SFC.2-36

Comment

Section 4.4 Transportation/Circulation

The traffic section of the DSEIR unfairly limits its review of intersection impacts to El Toro Road/Santa Margarita Parkway and north. No explanation is given in the DSEIR for this

limiting factor, and no analysis is included for the intersections along El Toro south to the San Diego Freeway (I-5). The DSEIR should include all intersections that will be impacted by 705-unit project. This lack of analysis raises another unanswered question: Have the traffic calculations been adjusted to account for the difference in projected use versus actual use of the Foothill Corridor? (The San Joaquin Corridor's projected usage was substantially overestimated by nearly 50%). This difference in projected use versus actual use should be incorporated into the project and regional buildout traffic calculations of the area. With an over estimation of the Foothill Corridor usage, there will need to be an analysis and discussion of traffic along El Toro Road from the Foothill Corridor south to the San Diego Freeway. The intersection of El Toro at the 5-Freeway north and south is virtually impassable during peak hours and the addition of Saddleback Meadows will only exacerbate this growing problem.

Response

The scope of the traffic and circulation impact analysis contained in DEIR 566 was based upon several meetings with County of Orange, PF&R Department, Programs Division, Traffic Engineering Section staff, in conjunction with standard accepted traffic engineering analysis practices and County of Orange adopted policies. Fifteen percent of the project related average daily traffic generation is distributed southbound on El Toro Road, south of Santa Margarita Parkway, with 20 % of the project related average daily traffic generation distributed onto the northbound Foothill Transportation Corridor. The above outlined trip distribution remains valid. Intersections which would experience less than a 1% impact are not considered to have "measurable impacts."

The Foothill Transportation Corridor is currently operating at projected traffic volumes and levels of service (LOS), in contrast to the underutilized San Joaquin Transportation Corridor.

SFC.2-37

Comment

Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the traffic impacts from the ruse of the El Toro Marine Corp Air Station as a commercial airport. In addition, it is not clear from the DSEIR if the regional traffic model utilized for the project impacts, and cumulative project impacts, actually incorporates the regional changes to the traffic resulting from a commercial airport at El Toro. CEQA Guidelines Section 15130(b)(1)(B) provides the cumulative impact elements necessary for an adequate discussion include: "A summary of projections contained in an adopted general plan or related planning document (in this case the Draft Reuse Plan EIR) which is designed to evaluate regional or areawide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency." The El Toro Reuse Plan and EIR should be included in the regional analysis and cumulative impacts, incorporated by reference, and made available for public review during the recirculation process. Without such an analysis, **the DSEIR cannot conclude that this traffic issue will have less than significant impacts.**

Response

The cumulative traffic impact analysis is based on the most current modeling source available from the County of Orange: the OCTAM, Version 2.5, South County Subarea traffic model. No specific MCAS El Toro reuse cumulative traffic data is available, as a preferred alternative and the related EIR/EIS has not been prepared.

SFC.2-38

Comment

It appears as though the traffic study has distributed residential trips to the commercial area from the project internally via Valley Vista Way. The traffic analysis does not take into account that Valley Vista is closed to through traffic and is to be used as an emergency access only. According to the grading plan, the only way to the commercial area will be from either El Toro Road or Valley Vista. If Valley Vista is to be blocked off, all trips in the traffic study that were to use Valley Vista will now use El Toro Road. This inconsistency should be resolved.

Response

Twenty percent of the commercial site trip generation was distributed internally to the project site via Valley Vista Way. Redistribution of these trip to El Toro Road will not alter the post development level of service analysis contained in the DEIR.

SFC.2-39

Comment

Review of the traffic count data shows that the information was gathered after schools in the District had been let out for summer. Updated counts should be included after school has started, but before the Christmas holiday season.

Response

The timing of the baseline traffic data collection, in reference to school schedules, does not have a significant effect on the traffic impact analysis.

SFC 2-40

Comment

Page 4-52, Traffic Impact Modeling section of DSEIR 566 indicates that the proposed project of 705 units will generate 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. However, the Traffic Report in Technical Appendix E states on page 27 that "The Saddleback Meadows (TT-10692)

development is projected to generate a total of approximately 8,340 trip-ends per day with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour". **Why is there nearly a 25% discrepancy with respect to trip-end figures?** Even with the inclusion of passby/diverted trip reductions (as calculated on Table 4, page 29 of the Traffic Report in Appendix E), the total project trip-ends is 7,530, nearly 20% greater than what is stated in the DSEIR. The traffic section of the DSEIR should be reanalyzed and recirculated for public review.

Response

Please see response to comment CMV-3

SFC.2-41

Comment

Page 4-52, Section 4.4.2. Effects Found To Be Insignificant. This section concludes that the proposed project would not result in insufficient parking capacity onsite or offsite. This is not consistent with the traffic report in Appendix E which indicates on page 10 that "Verification of adequate parking should be analyzed for the project in conjunction with approval of the site plan." The site plan for Saddleback Meadows is already approved. Lack of available parking for high density housing such as this is the number one Home Owner Association complaint and the subject of many homeowner lawsuits against the developer. The DSEIR should discuss what constitutes a significant parking impact, however, in order to do that, parking verification must be performed first. In order for the traffic engineer's recommendation to be consistent with the DSEIR's finding of insignificance for this parking issue, a parking analysis for the site should be performed prior to certification.

Response

Residential and commercial parking requirements have been incorporated into the recorded tract map, and will be reviewed and verified at the site plan review stage for the commercial land use.

SFC.2-42

Comment

Page 4-82, Mitigation measure 4-12 and 4-13 seem to contradict each other. MM 4-12 requires the applicant to design and construct roadway improvements for El Toro Road, including deceleration lanes an entrance pockets, whereas MM 4-13 requires the applicant to provide only a cash deposit for the difference in cost of designing and constructing the roadway improvements of the project compared to the costs associated with the ultimate configuration of El Toro Road. The question that remains, therefore, is whether the project has to pay for or build its fair share of the traffic improvements to El Toro Road?

Response

The comment restates mitigation measures contained in the DEIR. Mitigation Measure SC 4-12 requires the construction of specific, project related, improvements to El Toro Road, with Mitigation Measure SC 4-13 requiring a deposit for the construction of ultimate right of way facilities. This mitigation measure is adequate to ensure that the project meets its obligation towards El Toro Road improvements.

SFC.2-43

Page 4-83, Mitigation measure 4-15 states that "Verification of adequate parking shall be analyzed for the site in conjunction with approval of the site plan". This mitigation measure should be revised based on the comments from page 4-52, Section 4.4.2.

None of the mitigation measures listed in the traffic section of the DSEIR provides for reasonable contributions to the regional impacts on traffic from the proposed El Toro commercial airport.

Response

The comment refers to mitigation measure AM-16, not AM-15. Please refer to response to comment SFC 2-41.

SFC.2-44

Comment

Section 4.5 Air Quality

Page 4-94, Mobile Source Impacts The Air Quality section for Mobile Source Impacts has based its calculation on 5,410 daily vehicle trips, the DSEIR traffic section states a calculation of 6,222 daily trips, while the Traffic Report in Appendix E of the DSEIR states a daily trip calculation of 8,340, a total difference of 35%. Therefore it would appear that the air quality calculations are underestimated. Any CEQA calculations that differ by a factor of 10%, let alone 35% or more, cannot be considered similar and therefore, the Air Quality analysis should be updated with the proper information before certification by the Planning Commission.

Response

The comment is correct in noting that the air quality analysis is based on 7,530 trips per day, rather than 8,340, a difference of 810 trips per day, or 11% An increase in project related operational emissions would not change any conclusions relating to the potential significance of AQMD threshold exceedances, as outlined in Table 19 of the DEIR, on Page 4-94. Please refer to section II of this document, Corrections and Additions to the DEIR .

SFC.2-45

Comment

Page 4-110; It appears that the applicant has chosen to utilize the project related vehicle trips from the previous noise study prepared for 318 units (EIR 561), rather than updating EIR 566 to reflect more than double the number of units associated with the manufactured housing project. This study should be updated with the proper information prior to certification of the EIR.

Response

The comment is incorrect. The acoustical analysis was updated to reflect the 705 unit proposal evaluated in DEIR 566 The reference to the number of daily trips in the text on Page 4-110 of the DEIR is a typographical error. The updated acoustical analysis is contained in it's entirety in Appendix G of the DEIR.

SFC.2-46

Comment

Page 4-118, Section 4.6.7 indicates that the project in conjunction with proposed mitigation measures would not result in any unavoidable adverse operational impacts. However, the EIR fails to analyze the noise impacts the project would have, at buildout, on the surrounding religious organizations to the north and south of the site.

Response

Please refer to Page 4-113, Paragraph 5 in the DEIR for a discussion of noise impacts to adjacent land uses.

SFC.2-47

Comment

Section 4.6 Noise

Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the noise impacts from the reuse of the El Toro Marine Corp Air Station as a commercial airport or the noise from traffic associated with the commercial airport. Once this information has been included in this DSEIR, this document should be recirculated for public review.

Page 4-102, Baseline Noise Levels The Noise section of the DSEIR provides a baseline discussion of the current impacts from the El Tor MCAS fly-overs which exist at present, but

the impact section of the EIR fails to identify potential CNEL contours as a result of the base reuse plan as an active commercial airport.

Response

Please refer to response to comment SFC.2-37.

SFC.2-48

Comment

Page 4-103, the first paragraph discusses an area of proposed open space as the project location where the 62 dB CNEL contour falls. This may have been true for the previous EIR 561, however, page 7 of the noise study provided in Appendix G states that the 62dB CNEL location is in an area of proposed commercial development. The proper location of the 62 dB CNEL should be verified prior to EIR certification.

Technical Error: page 4-103, first paragraph, last sentence: The DSEIR incorrectly uses the 62 dB CNEL as "over productive". Correct terminology from the Noise Study, page 7, first paragraph: the use of 62 dB CNEL is "overpredictive".

Response

Exhibit 48 shows the location of the existing 60 dB CNEL noise contour for MCAS El Toro. The 60 dB CNEL contour effects the southwest portion of the project site which is proposed as commercial as well as natural open space land uses.

SFC.2-49

Comment

Page 4-103, third paragraph, states "Depending upon future site re-use, aircraft noise may or may not be an important issue." **The aircraft noise from a commercial airport at El Toro will be an important issue.** Nowhere else in the DSEIR is the El Toro MCAS reuse discussed or incorporated by reference. No commercial aircraft noise impact analysis is provided. The DSEIR should include project related noise impacts as a result of the El Toro reuse plan as a commercial airport and traffic related impacts. Once this information has been included in this DSEIR, the document should be recirculated for public review.

Response

Please refer to response to comment SFC.2-37.

SFC.2-50

Comment

Page 4-103, fourth paragraph indicates that individual fly-over events may be noise intrusive and mitigation has been provided. However, neither the baseline discussion, impact analysis nor the mitigation measures in the DSEIR include mitigation for a multiple fly-over commercial airport.

Response

Please refer to response to comment SFC.2-37.

SFC.2-51

Comment

Section 4.7 Biological Resources

The Planning Commission should be aware of a note that was included on the preliminary grading plans, that indicates: "Upon issuance of the grading permit by the County, the County will inform the USFWS of the issuance of this permit and any related activity that may potentially involve a CSS "take" resulting from the associate grading activities". This note on the grading plan takes the mitigation monitoring responsibility out of the hands of the County and impermissibly transfers it to the developer and its grading contractor. The note, a copy of which is attached, is an attempt to sidestep the need for coordinating the CDFG and USFWS permits prior to issuance of the grading permit.

Responses

The comment restates information contained on the preliminary grading plans. Mitigation measures SC 7-4 through SC 7-6 require the notification of the appropriate resource agencies of any potential impacts to coastal sage scrub, prior to the issuance of any grading permits.

SFC.2-52

Comment

No grading permit should even be considered for issuance unit after the gnatcatcher study has been completed per USFWS protocol. Under the Federal Endangered Species Act, all "take" must be accommodated regardless if a recorded tract map is involved. This is a grading permit level of detail EIR, and thus, the studies included should reflect CEQA Guidelines Section 15146: "the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." (i.e. grading plan permit). Section 15146 (a) states: "An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a

local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy". If USFWS decides that project modifications or on-site mitigation is required, then the final tract map will have to be changed any way.

Response

Please refer to response to comment SFC-1.

SFC.2-53

Comment

Between the time when EIR 561 and EIR 566 were both prepared, there seems to have been a change in the vegetation communities on the site, or the biology reports are inconsistent between last year's EIR and this year's EIR. Both EIR 561 and 566 are based on the same site and the same biological study, yet the numbers of plant species have changed without new field work. The only updated biological fieldwork was done April 1996 for the western spadefoot toad. The following discrepancies between the two biological reports prepared for this EIR need to be rectified: EIR 561 indicated 119 plant species where EIR 566 indicated 110; what were the previous other 9 plant species and where are they now?; were any of these 9 disappearing plant species sensitive? EIR 561 indicates 70 native plant species on site, yet EIR 566 indicates 73 native plant species. Were three more native plant species planted in a year or is EIR 566 incorrect? EIR 561 originally indicated 49 non-native species and now EIR 566 indicates only 39 non-native species. Without new fieldwork having been conducted by the consultant, which biology report is correct? Both Figure 5 in EIR 566 technical appendix and Figure 3 in EIR 561 technical appendix show the same vegetation, yet the vegetation quantities have changed.

Response

New biological resource field work was completed for DEIR 566 for the offsite areas impacted by project implementation, that were not previously impacted by the project evaluated in DEIR 561. DEIR 566 includes an analysis of 19.77 acres of offsite impact area as compared to 7.86 acres of offsite impact area evaluated in DEIR 561. These differing sizes and locations of offsite impact areas have resulted in the changes that have been noted in plant community acreage and numbers of individual species.

SFC.2-54

Comment

Page 4-126, Amphibians. This section states that "No amphibians ere observed during surveys of the site", yet Exhibit No. 50 on page 4-122 lists the Western Spadefoot Toad as present. This discrepancy should be corrected.

Response

Comment noted. Please refer to Section II, Corrections and Additions to DEIR.

SFC.2-55

Comment

Page 4-125, Ephemeral Ponds. The section states that "All of the ephemeral ponds were artificially created a number of years ago..." Given the geological conditions of frequent landslides in the area, these wetlands could have been "slump" or "slope" ponds that underwent human modification at a later time. Further information is needed in the DSEIR regarding the origin of these wetlands.

Response

Please refer to response to comment USFWS-11.

SFC.2-56

Comment

Page 4-148 of EIR 566, Coastal California Gnatcatcher, indicates that no gnatcatcher survey has been performed with USFWS protocol. Specific surveys for presence or absence must be performed at this level of detail for this construction stage in the project. Combined with the disturbing note on the grading plans, the County will lose the ability to monitor any mitigation for the CCG. In order for this EIR to be deemed adequate under CEQA Guidelines Section 15126 (c), the focused CCG survey must be performed prior to certification of this EIR.

Response

Please refer to response to comment USFWS-16 and Section II of this Document, Corrections and Additions.

SFC.2-57

Comment

Page 4-148, Raptor Foraging Habitat: Whatever consultant recommended to the developer that project slopes would constitute sufficient raptor foraging habitat did not determine this through any consultation with either CDFG or the USFWS. Consultation on appropriate impact significance should be reflected in this DSEIR prior to certification.

Response

The USFWS and CDFG were consulted with during the NOP comment period and have provided comments on the DEIR. The referenced statement on Page 4-148 of the DEIR does not indicate that "project slopes would constitute sufficient raptor foraging habitat." Rather, the statement indicates that onsite and surrounding open space would continue to function as raptor foraging habitats.

SFC.2-58

Comment

Page 4-151, Section 4 7.6, commences its discussion on mitigation measures by stating as a "given" that there is supposedly no ability on the part of the County to "deviate from the final recorded tract map." However, no legal or factual support is given for this statement, and it appears to be directly at odds with CEQA Guidelines Section 15041 which provides that the "lead agency for a project has the authority to require changes in any or all activities involved in the project in order to lessen or avoid significant effects on the environment." If this statement, which appears to be an excuse for not doing a complete mitigation analysis, is based on some unstated legal assumptions about the rights of the developer, then this analysis should be explained in detail in DSEIR 566 to let the public know why CEQA is not being complied with fully.

Response

Please refer to Section 2.8 on Page 2-10 of DEIR 566.

SFC.2-59

Comment

Page 4-153, Mitigation Measures SC 7-1 though 7-7 and measures 7-11 though 7-14 would appear to be of no value in light of the note placed on the preliminary grading plans. In addition, although EIR 561 provided the mitigation plans as a component of the EIR, DSEIR 566 only provides mitigation in the form of conditions to prepare mitigation plans in the future. The level of detail of the mitigation measures should be commensurate with the level of detail in a recorded tract map. Therefore this Eir does not adequately satisfy CEQA Guidelines Section 15126 (c) requirements at this time. Gathering further information and complying with resources agencies in the future is not proper mitigation. Biological mitigation of ACOE and CDFG coordination may change the development plan, which would then require a revised EIR.

Response

Please refer to response to comment SFC-1

SFC.2-60

Comment

Page 4-153, Mitigation Measure 7-2 states that a 1603 application has been submitted to CDFG. What is the status of the application? Has CDFG acknowledged receipt of the application? Was the application deemed complete by CDFG? What additional information did CDFG ask for? This future mitigation would hold more credence as a CEQA mitigation measure if more detail were known about the 1603 permit for this project. CDFG has a very limited staff and processing of the permit may take upwards of nine months to a year or more to complete. Is the County going to wait a year for the 1603 permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow the site to be radically altered prior to the issuance of the 1603 permit?

Response

A 1603 Streambed Alteration Agreement application has been submitted to the California Department of Fish and Game, and is being held in abeyance until final action is taken on the proposed project and a CEQA document is certified. Mitigation measure SC 7-2 requires the applicant to obtain a 1603 Streambed Alteration Agreement prior to the issuance of any grading permit.

SFC.2-61

Comment

Page 4-153, Mitigation Measure 7-3 states that the applicant will obtain the necessary individual or nationwide permit... According to Page 4-146, second paragraph, the biological consultant states that an individual permit will be necessary. The mitigation measure should accurately state the proper permit necessary As with the 1603 permit, has the applicant submitted an application for a 404 permit? Has the ACOE acknowledged receipt of the application? Was the application deemed complete by the ACOE? What additional information did the ACOE ask for? The ACOE has even fewer staff than the CDFG, and processing of the permit may take more than a year to complete. Is the County going to wait a year for the 404 permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow the site to be permanently stripped of sensitive biological resources prior to the 404 permit being issued?

Response

The applicant has not submitted an application for a Section 404 permit.. The Army Corps of Engineers determines the appropriate type of 404 permit required based on the types and intensity of impacts to waters of the United States and adjacent wetlands. Mitigation measure SC 7-3 requires the applicant to obtain the appropriate type of 404 permit prior to the issuance of any grading permits.

SFC.2-62

Comments

Page 4-153, Mitigation Measure 7-4 states that the applicant is to provide a summary in acres of coastal sage scrub to be impacted, but this has already been stated in Table 30 of the DSEIR. The mitigation measure only serves to lead the reader back to the beginning of the impacts section of the DSEIR. The mitigation measure should be specific and consistent with the biological consultants recommendation of "The dedication and long-term preservation of 22.9 acres of habitat of Saddleback Meadows, revegetation of 46.5 acres of Veturan-Diegan transitional coastal sage scrub on site and contribution of the Orange County NCCP".

Response

Mitigation measure SC 7-4 is a standard County condition requiring the applicant to provide an accounting of impacts to coastal sage scrub to the County.

SFC.2-63

Comment

Page 4-153, Mitigation Measure 7-5 states that the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the USFWS. This mitigation measure is misleading because it fails to state what permit is needed. USFWS may impose additional mitigation measures as part of its review process. In order to assure that USFWS mitigations do not conflict with any other measures in the DSEIR, the consultation with USFWS should be conducted prior to certification of the DSEIR. As with the 1603 and 404 permit, has the applicant submitted a request for USFWS consultation or filed an application? Has the USFWS acknowledged receipt of the application? Was the application deemed complete by the USFWS? What additional information did USFWS ask for? The USFWS has the fewest staff of all three agencies, and processing of the permit and consultation may take more than a year to complete. Is the County going to wait a year for the Section 10 a permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow clearing and grubbing of the site prior to the 10 a permit?

Response

Mitigation measure SC 7-5 is a standard County condition, and requires the applicant to obtain approval for impacts to coastal sage scrub, prior to the issuance of any grading permits. The applicant has not filed a request with the USFWS to initiate the process.

SFC.2-64

Comment

Page 4-154, Mitigation Measure 7-6 could in effect override mitigation measure 7-5, if the Administrator, Planning and Zoning so desired. This mitigation measure should be deleted.

Response

Mitigation measure SC 7-6 adds an additional level of protection for the County of Orange to regulate project impacts to coastal sage scrub in relationship to the counties NCCP responsibilities.

SFC.2-65

Comment

Page 4-154, Mitigation Measure 7-7. If there are additional permits required by the USFWS, the DSEIR should list those specific permits. Consultation with the USFWS, as indicated on page 4-151 last paragraph of the DSEIR, states that input has been received from the USFWS. Why didn't the EIR preparer ask what additional permits may be necessary for native vegetation?

Response

Mitigation measure SC 7-7 is a standard County condition, and is designed to ensure that proposed grading activities will be in compliance with the provisions of the Endangered Species Act, and in this case, the NCCP program .

SFC.2-66

Comment

Page 4-155, Mitigation Measure 7-8, F, states that an experienced nursery or other landscape contractor shall care for the transplanted trees for only six (6) months. The biological report states on page 49, second paragraph, "In order to ensure the success of mitigation, the Project proponent should enter into a five year secured agreement with the County of Orange to cover the Projected cost to install, monitor, and report on the mitigation Project. This agreement will be in the form of a 100 percent bond." This extremely important mitigation measure is found nowhere in the DSEIR. IF the DSEIR does not reflect the recommendations of the expert biologist, then mitigation measure 7-8F is ineffective and invalid. The DSEIR cannot be certified without amending this measure to reflect the biologist's's recommendation.

Response

The provision for five years of biological resource mitigation monitoring is hereby incorporated into the DEIR. Please refer to Corrections and Additions to the DEIR.

SFC.2-67

Comment

Page 4-157, Mitigation Measure 7-11 states that the applicant shall provide additional evidence that onsite CSS habitat is not occupied by California Gnatcatchers. The survey for the CCG should be performed now to rule out any occupied habitat. What the mitigation measure is trying to say is that if CCG is found on site, the applicant will be required to file an application for a Federal Section 10(a)(1)(b) permit. If CCG is found, the USFWS will commences their consultation and additional mitigation measure may be imposed by the USFWS. In order to assure that USFWS mitigations do not conflict with any other measures in the DSEIR, the CCG survey should be performed prior to certification of the DSEIR. The mitigation measure should accurately state the proper permit necessary. As with the 1603 and 404 permit, has the applicant submitted a request for USFWS consultation or filed an application for a Section 10 a permit? Has the USFWS acknowledged receipt of the application? Was the application deemed complete by the USFWS? What additional information did USFWS ask for? The processing of the permit and consultation may take more than a year to complete. Is the County going to wait a year for the Section 10 a permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow clearing and grubbing of the site prior to the 10 a permit?

Response

Please refer to response to comment USFWS-26.

SFC.2-68

Comment

Page 4-158, Mitigation Measure 7-12, is not enforceable as a mitigation measure. The mitigation for the wildlife movement corridor should be included as part of the DSEIR for public review. The mitigation measure should list the onsite or off site options for the movement corridor. This measure should be deleted, and an alternative mitigation measure should be provided.

Response

Mitigation Measure SC 7-12 requires the mitigation of project effects on local and regional wildlife movement, prior to the issuance of any grading permit.

SFC.2-69

Comment

Page 4-158, Mitigation Measure 7-14. This measure in not enforceable as a mitigation measure. The relocation and establishment of a mitigation plan should be included as part of this DSEIR as it was with EIR 561.

Response

The comment restates information contained in DEIR 566.

SFC.2-70

Comment

Page 4-158, Mitigation Measure 7-15. This measure is not enforceable not does it further minimize impacts with wording such as "**Where possible**..." "Lighting within development projects adjacent to conserved habitat "**should**" be selectively placed...",..."lighting from homes abutting conserved habitat "**should**" be screened...",and, "These lighting restrictions "**should**" be incorporated into the project's CC&Rs." All of these "should" mitigation will become "shall" upon certification. If the Planning Commission is not sure that it wants to implement these measures, they should either delete them or change all "shoulds" to "**shalls**".

Response

The reference to *should* in mitigation measure SC 7-15 is hereby changed to *shall.* Please refer to Section II of this document, Corrections and Additions to the DEIR.

SFC.2-71

Comment

Page 4-159, Section 4.7.7 Unavoidable adverse impacts. Under CEQA Guidelines Section 15126(c) all mitigation must be enforced that will "minimize the significant effects" prior to EIR certification. The comment that the County will issue a letter of insignificance once the Interim Loss Habitat Mitigation Plan is approved has no meaning in terms of CEQA. The public has a right to review the ILHMP prior to EIR certification. Also, the second bullet item under this same section discusses future mitigation. A future survey is not mitigation according to the Federal EPA. This is a recorded tract map and a construction level grading permit application EIR. The biological report in the EIR should be the basis of any biological opinion.

Response

Section 15126(c) of the CEQA guidelines does not contain any provisions for *enforcement*

prior to EIR certification. The *Interim Habitat Loss Habitat Mitigation Plan*, is required as a condition of participation in the NCCP program. The NCCP contains provisions for interim loss of coastal sage scrub habitat while the NCCP is being prepared, prior to adoption

SFC.2-72

Comment

Section 4.8 Aesthetics

Page 4-174. Although aesthetic impacts will remain significant, even after mitigation, the Project Design Feature mitigation measures 8-1 through 8-4 are only standard conditions of approval for any development project. Mitigation measure 8-1 requires public utilities to be undergrounded, but the County would require this "Design Feature" anyway. Mitigation measures 8-2 and 8-3 would only truly be design features if the applicant were required to underground all drainage swales. This is more costly, but in order for these aesthetic mitigation measures to be compatible with the biological mitigation of the manufactured slopes providing rapture foraging habitat, the cost would be justified by both mitigations that would be accomplished.

Response

The comment restates information contained in the DEIR. No response required.

SFC.2-73

Comment

Page 4-174, Mitigation Measure 8-4 in not enforceable as a Project Design Feature. If the Trabuco Canyon Water District owns the tank site, the District will be responsible for the landscape screening, not the developer or the County. This mitigation measure should include additional monetary compensation to the Water District for additional landscape screening.

Response

The comment is correct. Please refer to Corrections and Additions to the DEIR.

SFC.2-74

Comment

Section 4.9 Cultural/Scientific Resources

Page 4-178. The DSEIR makes no attempt to analyze either the direct or indirect environmental impacts of the project on the religious or sacred uses withing the potential

impact area. In this case, the potential impact area extends outside of the property boundary. This important issue should be discussed int he DSEIR prior to certification.

Response

The comment is incorrect. Please refer to Sections 4.1, 4.2, 4.3, 4.6 and 4.8 of the DEIR for a discussion of project related impacts to adjacent land uses.

SFC.2-75

Comment

Page 4-216, Section 4.122, Effects Found to be Insignificant. The EIR preparer should look at this section again. The EIR incorrectly reads, "The Initial Study prepared for the proposed project did not identify any (sheriff, fire, education, and library) related effects as insignificant". Therefore, all the effects were significant.

Response

The comment is incorrect. The DEIR text is correct in noting that the Initial Study did not identify any effects as insignificant, and as such, are evaluated in the DEIR.

SFC.2-76

Comment

Page 4-217, Section 4.123, Fire. The 1 4 million-gallon tank was the same quantity tank utilized in EIR 561 for 318 homes. The EIR should reflect the proper fire flow amount for 705 units and the proper tank size or number. New impacts to the tank site will require recirculation of the EIR prior to certification.

Response

Please refer to response to comment SFC.2-13.

SFC.2-77

Comment

Page 4-222, Mitigation Measure 12-4, should be corrected to reflect the proper tank size.

Response

Please refer to response to comment SFC.2-76.

SFC.2-78

Comment

Section 4.13 Utilities and Service Systems

page 4-235, Water. While the project description indicates the need for a 1.4 million-gallon tank, the Draft EIR Section 4.13.6, does not mention the need to fire flow storage for a 1.4 million-gallon tank. With the consistency between the two EIRs, this EIR is not certifiable under CEQA unless the information presented to the Planning Commission is accurate, factual and current.

Response

Please refer to response to comment SFC.2-13.

SFC.2-79

Comment

The EIR has failed to identify an alternative location for this project, and is therefore inconsistent with CEQA. DSEIR 566, without a discussion of an alternative location cannot be certified as adequate. Should the Final EIR for 566 choose to include an alternative location analysis, the EIR should be recirculated with the new information for public review. Section 15126 (B) 2 states that "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR". However disclosure, at this time, of a new location would constitute new information and require recirculation of the DEIR.

Response

Please refer to response to comment RAT-16.

COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN, LLP., Edmond M. Connor, August 22, 1997

CCBG.3-1

Comment

As you know, our firm represents the Vedanta Society of Southern California (the "Society") which, for over five decades, has owned and maintained the Ramakrishna Monastery (the "Monastery") in an area of Trabuco Canyon which is immediately adjacent to the southeastern portion of the Saddleback Meadows property (the "Property"). On behalf of the Society, and pursuant to the 10-day extension of time granted in the August 12 letter which I received from Tom Mathews, Director of the Orange County Planning & Development Services department (the "Department"), we are submitting written comments on Draft Subsequent Environmental Impact Report No. 56 (DSEIR 566" or the DSEIR").

A. **Regrettably, The Society Is compelled To Submit Its Comments Under Protest.**

The Society must note for the record that it is submitting its comments under protest because of the Department's refusal to accommodate the Society's request, as set forth in my letters of August 6 and 8, 1997, that the Society, and all members of the public be provided with adequate time to comment on DSEIR 566 *after* the grading plans and the grading plan review which are the subject of Grading Application GA960048 (the "Grading Application") have been made a part of DSEIR 566 and the DSEIR has been recirculated for public comment. Because of the Department's decision to deprive the public of access to the very documents upon which the Grading Application is based, i.e., the 40-scale grading plans and the detailed review of those plans by the soils engineer of record, the geotechnical consultants engaged by the Society to comment on DSEIR 566 have been thwarted in their efforts to fully and properly assess the adverse environmental impacts and feasible mitigation measures associated with the rough grading operations for the construction of the 705 units of manufactured housing which were supposedly authorized by Final Tract map 10692 (the "Tract Map").

Without being allowed access to the basic documents that will, in fact, "accompany" the Grading Application, it is hardly fair that the Society, or any other members of the public, be required to submit comments on the adequacy of the environmental documentation prepared to evaluate the effects of the Grading Application. However, the Society will endeavor to do so without waiving its objections to the inherent unfairness of the CEQA review process that is currently being conducted by the Department. The Society urges the Department to reconsider its decision to push ahead with the review of DSEIR 566 without allowing the public to see documents which are crucial to the approval of the Grading Application. Indeed, the Society believes that the fairness and disclosure problems which presently exist can easily be corrected by simply recirculating DSEIR 566 after all of the grading plans and the grading plan review have been made a part of the DSEIR or, at the very least, have been incorporated by reference in the DSEIR and have been made available for public to see documents which are crucial to the approval of the Grading Application. Indeed, the Society

believes that the fairness and disclosure problems which presently exist can easily be corrected by simply recirculating DSEIR 566 after al of the grading plans and the grading plan review have been made a part of the DSEIR or, at the very least, have been incorporated by reference in the DSEIR and have been made available for public review.

Of course, the Society also believes that, if the Department persists in its refusal to make important project documents available to the public, a court of law would certainly find that the Department's actions in this regard were exceedingly unfair and not at all in keeping with either the letter or the spirit of CEQA.

Response

Please refer to response to comment SFC-1.

CCBG.3-2

Comment

B. <u>DSEIR 566 Fails To Comply With The Specificity Requirements Of CEQA Guidelines Section 15146.</u>

The Society will give credit where credit is due and will commend the Department for determining that a Subsequent EIR under CEQA Guidelines section 15162 would have to be prepared and certified before the Grading Application submitted by the Applicant in December 1996 could be approved.

In requiring the preparation of a Subsequent EIR, the Department was not only complying with the dictates of the Foothill/Trabuco Specific Plan (*see*, FTSP, p. III-20, § III.D.3.2c), but it was also adhering to the legal analysis set forth in the landmark case of *Day v. City of Glendale* (1995) 51 Cal.App.3d 817. In *Day*, the Court of Appeal held that a grading permit application is a "project of mixed ministerial-discretionary character [which] should be treated as a discretionary project" for purposed of CEQA review, especially in cases in ;which the applicable grading code affords staff a great deal of discretion in issuing, or conditioning the issuance of, a grading permit (51 Cal.App.3d at pp. 823-824).

However, having correctly determined that a Subsequent EIR should be prepared, the Department must now ensure that the environmental documentation prepared by the Applicant's consultant fully complies with the requirements of CEQA and the State CEQA Guidelines which govern the preparation and review of a construction level EIR. Unfortunately, in its present form, DSEIR 566 does not comply with these requirements because it postpones for *future* analysis the specific details of the very activity which it was supposedly prepared to address, i.e., the rough grading of the Project.

There can be no doubt that DSEIR 566 was supposed to analyze the impacts and mitigation measures relating to the Grading Application. As stated on page 2-8 of DSEIR 566, the Department determined, on December 16, 1996, that "a Subsequent EIR is required to

evaluate the effects of the *grading application*." (Emphasis added.) In addition to what is stated in the DSEIR, Mr. Mathews also confirmed in his August 12 letter to me that the Applicant's grading permit application was "the *initiating activity* which resulted in the determination that Draft EIR 566 be prepared." (Emphasis added)

Since it is clear, therefore, that the Grading Application was the project approval which *initiated* and *necessitated* the preparation of DSEIR 566 it is only logical that the DSEIR analyze the impacts of the rough grading operations not in mere general and conceptual terms but in the *specific* and *detailed* terms that CEQA requires. CEQA Guidelines section 15146 is very explicit on this point and requires far more specificity than is evidenced in DSEIR 566. As stated in section 15146, [a]n EIR on a construction project will necessarily be *more detailed* in the *specific effects* of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the *effects of construction* can be predicted with greater accuracy." (Emphasis added.)

Response

Please refer to response to comment SFC-1.

CCBG.3-3

Comment

CEQA Guidelines section 15146 further provides that the degree of specificity required in an EIR must correspond to "the degree of specificity involved in the underlying activity which is described in the EIR." What this means with reference to DSEIR 566 is that, since the DSEIR was expressly prepared to evaluate the effects of the Grading Application, the *specific details* of the rough grading activities for the construction of the 705-unit Project must be analyzed in DSEIR 566. In order to do that, of course, the documents which County staff will necessarily review and comment on *before* approving the Grading Application -- which will include, at a minimum, the grading plans and the geotechnical review of those grading plans-- must be made a part of or at least incorporated by reference into, the DSEIR so that all the detailed information that is available to the County is likewise made available to the public though the CEQA review process.

Response

Please refer to response to comment SFC-1.

CCBG.3-4

Comment

C. **DSEIR 566 Fails To comply With The Technical Detail Requirements of CEQA Guidelines Section 15147.**

In the letter which I sent to you on August 8, 1997, a copy of which is attached as Exhibit "A" hereto and is incorporated herein, the point was made that both California case law and the provisions of CEQA Guidelines section 15147 make it abundantly clear that all technical data, maps, plans, diagrams, etc., which are necessary to make a "full assessment" of the environmental impacts of the project being evaluated must be contained in the EIR or in the Appendices thereto. In this case, therefore, since DSEIR 566 was expressly prepared to evaluate the environmental effects o the Grading Application , the 40-scale grading plans and the geotechnical review of those plans should have been made part of the DSEIR *before* it was circulated for public comment.

In his August 12 letter to me, Mr. Mathews disagreed with the above-stated position and stated that "[sufficient detailed grading and geotechnical information is available in the Draft EIR." This is simply not the case. Indeed, without the grading plans and the geotechnical grading plan review which G.A. Nicoll indicates will "accompany the Grading Application *L.A. Times* article could occur as a result of the grading activities to be undertaken in construction the Project. This requires a careful study -- not simply a response to comments -- and the Society requests that it be undertaken *before* any further action is taken to process the Grading Application.

The *only* soils report referenced in DSEIR 566 which addressed the 705-unit Project is the one found in Appendix D to the DSEIR. However, that report makes no bones about the fact that it was only "prepared at an EIR level" (whatever that means). In fact, the Geotechnical Environmental Impact Report prepared by G.A. Nicoll & Associates, dated March 14, 1997, expressly states that a "*more detailed evaluation* of the slope stability, including analysis of buttress backcuts and forecuts, individual cut slope buttreses, etc., will be conducted during the 40-scale grading plan review to accompany the grading permit application." (Appendix D, p.4, ¶ 4, emphasis added.)

The March 1997 report prepared by Nicoll & Associates also states at page 16 that "*[c]omplete details* of the corrective grading will be illustrated in the final geotechnical report of the site, which will be submitted *for grading plan permitting* purposes." This is obviously a concession by the soils engineer of record for the Project that more detailed geotechnical analysis must be performed before the county will be in a position to approve the Grading Application and issue a grading permit to the Applicant The question which naturally arises, therefore, is *why* is DSEIR 566 being processed for certification *before* this more detailed information has been made available to the County?

The above question must be answered by the Department and cannot be dismissed as a mere hypertechnical inquiry relevant only to lawyers and judges. Indeed, the question goes to the very heart of the problem facing anyone who tries to determine -- *without* the benefit of the 40-scale grading plans for the entire Project and the geotechnical review of those plans -- how extensive, how costly, and how time-consuming the grading operations for the Project will be.

Response

Please refer to response to comment SFC-1.

CCBG.3-5

Comment

D. Important Details Regarding The Nature And Extent Of The Proposed Grading Must Be Provided In Order To Determine The Cost And Duration Of The Grading And To Ascertain whether The Affordable Housing Condition Imposed On The Project Is Still Achievable.

Without knowing certain basic details regarding the nature and extent of the millions and millions of cubic yards of corrective or "remedial" grading that will need to be undertaken in construction the Project – such as, for example, the estimated depth of the removals (possibly up to 120' deep in places!), the limits of the backcut that may be left open at any one time without increasing the risk of slope failure beyond the 10% estimated failure rate, the recommended procedures for controlling groundwater encountered during excavation, etc. – it is *not* possible to develop a reliable estimate of the cost or duration of the grading activities to be performed at the Project site.

According to section 4.2 of DSEIR 566, all of the rough grading at the Project is to be "completed in one *continuous* phase." (DSEIR, at p. 4-22, emphasis added.) Assuming this is true, [2] then all of the persons living in close proximity to the Property, including the monks at the Monastery, the priests and students at St. Michael's Abbey, and the residents of the Hidden Ridge and Portola Hills developments, would be keenly interested in knowing how many months or Iyearsl they could expect to be subjected to the noise, dust, diesel smells, and bare-dirt conditions which would be caused by the veritable army of large earth-moving equipment (e.g., scrapers, dozers, blades, compactors, trucks, etc.) that would have to be deployed at the Project site.

However, without being allowed access to the 40-scale grading plans for the entire Project and the grading plan review containing all of the soils engineer's specifications and recommendations for undertaking the proposed 8.9 million cubic yards of remedial grading work, including the construction of buttresses, shear keys, stabilization fills, and subdrain systems, no grading contractor in Orange county could even begin to estimate the amount of labor, material, and equipment that would be required to rough grade the Project in one continuous phase. IN fact, to even project an average daily production rate for the remedial

[2] After being compelled to make separate arrangements with the applicant to pay for copies of the 40-scale grading plans relating to the Grading Application, the society was surprised to learn that the plans made available by the Applicant cover only a portion of the Project referred to as "Phase I." This would clearly seem to suggest that the statements in DSEIR 566 that all grading will be completed in one continuous phase is not true.

grading operating without knowing the soils engineer's recommendations contained in the grading pan review would be nothing short of wild speculation.

Response

The DEIR contains a discussion of project related grading activities, including the phasing and duration of grading, in Section 3.4 on Page 3-16.

CCBG.3-6

Interestingly, without providing any explanation or breakdown of any kind, the applicant's consultant has projected an average daily production rate of 30,000 cubic yards per day for the "total project-related grading," amounting to 11.5 million cubic yards. (DSEIR, at p. 4-23.) Based on this projected rate, it has been estimated in DSEIR 566 that all of the rough grading at the Project "would require approximately 18 months to complete." (Id.) To say the least, this estimate strains credulity, and raises serious questions about whether the duration of the Project grading has been purposely understated in the DSEIR.

Since almost 80% of the grading (8.9) out of a total of 11.5 million cubic yards) will consist of slow, costly, and very difficult remedial work to stabilize the proposed slopes by means of landslide shear keys, buttresses, and stabilization fills, it is nothing short if incredible that anyone could even suggest that this work – which will involve deep slop-cutting that will have to be performed by using special excavating equipment and extremely conservative backcutting procedures – could be accomplished at anything close to 30,000 cubic yards per day on *average*.

In fact, the Society has engaged the chief estimator of a local grading contracting firm as a consultant, but, without having access to all the grading plans and to the grading plan review to know what the soils engineer will be recommending regarding how the remedial grading work will have to be performed at the Project, he has been unable to formulate any reasonable estimates of the time or cost that will be involved in the grading – except to note that the 18-month projection set forth in DSEIR 566 appears to be grossly *underestimated*, possibly by a factor or 100% or more.

The reason that it is important to know the approximate *cost* of the rough grading is that, unless one knows what kind of dollars are involved, one cannot determine whether the measures proposed in DSEIR 566 to mitigate the geotechnical hazards at the site (e.g., landslide shear keys, buttresses, stabilization fills, etc.) Are truly *feasible*, within the meaning of CEQA section 21061.1, and can be "accomplished in a successful manner within a reasonable period of time, taking into account economic.. factors." In other words, the costs of the remedial grading work could turn out to be so prohibitively expensive in light of the economics of the Project that the mitigation measures proposed in the DSEIR might not be feasible and thus could not be used to "substantially lessen" the significant impacts of the grading, withing the meaning of CEQA Guidelines section 15091.

Moreover, without knowing the cost of the proposed mitigation measures for the grading

(i.e., the 8.9 million cubic yards of remedial work), one cannot determine whether the economics of the Project would make it even remotely possible for the Applicant to meet the 66.6% affordable housing requirement which was imposed as a condition of approval on the Tract Map when it was originally approved in 1979. Although there is a passing reference to this requirement on page 4-11 of DSEIR 566, there is no discussion of whether the requirement of selling 470 of the 705 units of manufactured housing "in the affordable range" would be achievable, even in part, considering the cost of developing the Project at today's prices for labor, equipment, and material.

For CEQA compliance purposes, it is imperative that a comprehensive discussion regarding the feasibility of achieving the affordable housing requirement be included in DSEIR 566 and that the document then be recirculated so that the public can see and comment on what evidence there might be, if any, to support any proposed findings or statement of overriding considerations prepared by the Department which attempted to cite the affordable housing component of the Project as a "benefit" which might outweigh the unavoidable adverse impacts of the Project, within the meaning of CEQA Guidelines section 15093.

If the Department were to supply the Society with the information it has requested - specifically, the 40-scale grading plan for the entire Project and the geotechnical review of all the grading plans - the Society would be willing to perform the economic analysis necessary to determine whether it would be economically feasible, in light of land acquisition and debt service costs, taxes, planning costs, grading costs, and construction costs, for the Applicant to develop 705 units of manufactured housing and to sell two-thirds of these units as affordable housing. This analysis could then be made a part of DSEIR 566 and the document could be recirculated for public review and comment

Response

The estimate of 30,000 cubic yards of grading per day is appropriate, and can be compared with several other grading projects that have been completed in the vicinity of the project site. The Portola Hills project graded a maximum of 100,000 cubic yards per day. Costs associated with remedial grading activities have not been provided by the applicant. The DEIR, in Section 4.1, beginning on Page 4-1 contains a discussion of the proposed project's affordable housing requirements.

CCBG.3-7

Comment

E. <u>The Discussion Of Soils Impacts And Grading Mitigation Measures In DSEIR 566 Is Seriously Deficient And Fails To Address Significant Adverse Impacts Which Will Be Caused By The Ought Grading.</u>

To assist it in analyzing and commenting on the "Soils and Geology" section of DSEIR 566, the Society has engaged the services of Kenneth R. King, a registered civil engineer, and John R. Byerly, a registered geotechnical engineer. Unfortunately, the assistance provided by these

two consultants has been severely limited due to their inability to obtain access to the 40-scale grading plans and the accompanying grading plan review.

Despite not being able to review the essential documents relating to the Grading Application, Mess King and Byerly have nonetheless found serious deficiencies in how important geotechnical issues have been analyzed, or overlooked, in DSEIR 566. In the hope that DSEIR 566 will be revised and recirculated with the appropriate documentation and a more complete analysis of the true impacts and feasible mitigation measures associated with the rough grading of the Project, the Society is providing the comments received to date from Mess King and Byerly.

Response

Please refer to response to comment SFC-1.

CCBG.3-8

1. Comments From Ken King.

Attached as Exhibit "B" hereto and incorporated herein by reference is a copy of Mr. King's preliminary review of section 4.2 "Soils and Geology" of DSEIR 566. The Society requests that each of the points raised in Mr. King's report be carefully considered and responded to by the Department. In addition, the Society asks that DSEIR 566 be revised and recirculated with the information necessary to address the deficiencies cited in Mr. King's report, particularly with respect to the failure of the DSEIR to analyze the devastating and potentially irremedial impacts which the excavation and dewatering activities will have on the water wells surrounding the Project site.

A recent article appearing in the Los Angeles Times, a copy of which is attached as Exhibit "C" hereto and is incorporated herein by reference, supports the concerns raised by Mr. King, for it reports on how the tunneling and dewatering activities for the construction of the Los Angeles subway system have dried up local streambeds and so drastically depleted groundwater resources that once lush plants and vegetation have died off. DSEIR 566 should address whether the environmental parade of horribles discussed in the L.A. Times article could occur as a result of the grading activities to be undertaken in constructing the Project. This requires a careful study -not simply a response to comments - and the Society requests that it be undertaken before any further action is taken to process the Grading Application.

Response

The comment references an article that was published in the Los Angeles Times relating to Metro Rail construction impacts on local ground and surface water. No additional response is required.

CCBG.3-9

Comment

2. **Comments From John Byerly.**

The comments received from Mr. Byerly regarding section 4.2 of DSEIR 566 may be summarized as follows:

(a) Perched groundwater was encountered in the geotechnical investigations on this site at various elevations in many of the test borings by G.A. Nicoll & Associates and others. DSEIR 566 alludes to "potential dewatering activities." Remedial grading will require the construction of buttresses and extensive shear keys, involving an estimated 8.9 million cubic yards of earth. The excavations fro the shear keys will surely intercept water bearing soil and bedrock layers. The potential effect of the disruption of these water bearing layers on water wells located downstream of this project site has not been evaluated in the DSEIR.

Response

Please refer to response to comment SFC-1.

CCBG.3-10

Comment

(b) During construction, dewatering will remove significant quantities of groundwater and discharge the collected water into existing surface drainage systems. The potential impact of the discharge of the removed groundwater, including turbidity, chemical water quality, and potential for erosion and pollution of streams and other riparian areas subject to regulation by state and federal; authorities has not been addressed in the DSEIR.

Response

Please refer to response to comment SFC-1.

CCBG 3-11

Comment

(c) When the shear keys are completed, they will provide a permanent barrier to the lateral transmission of the presently existing groundwater flow. The groundwater will tend to accumulate behind the shear keys, and could surface unless permanent dewatering systems are provided. The analysis of the practicality of permanent dewatering systems, whether

passive or requiring well points and pumps, and the long term effect of dewatering system discharge has not been evaluated in the DSEIR.

Response

Please refer to response to comment SFC-1.

CCBG.3-12

Comment

(d) Approximately 2.6 million cubic yards of excavation is estimated to "achieve planned elevations and profiles." An additional 8.9 million cubic yards of remedial grading is also described, including 7.5 million cubic yards for shear key and buttress construction. The DSEIR concludes that this grading "would not result in any impact on the stability of adjacent properties." While engineering analysis may show that the *complete* grading improvements would not have an adverse impact on the stability of adjacent property the actual *construction* of these grading improvements may have immense impacts on neighboring properties such as the Monastery and the Abbey. For example, the excavation for shear keys will remove support for existing landslide masses, and will expose landslide shear planes. No discussion of the details of assuring adequate support for the landslides extending onto adjacent properties during the excavation and backfilling of shear keys has been provided in the DSEIR.

Response

Please refer to response to comment SFC-1.

CCBG.3-13

Comment

(e) Currently, both the Monastery and the Abbey are experiencing ongoing distress due to land slippage. As such, the risk of activating existing landslides and triggering catastrophic land movement on these adjacent properties, particularly during the shear key excavation and backfill process, should be addressed in great detail in the DSEIR.

Response

Please refer to response to comment SFC-1.

CCBG 3-14

Comment

An average daily grading rate of 30,000 cubic yards per day is projected in the DSEIR. However, it is inconceivable that the excavation and filing for the shear keys and buttresses, which constitute at least two-thirds of the total grading anticipated for the Project site, can be accomplished at a grading rate of anything more than 10,000 cubic yards per day at best.

Even at the rate of 10,000 cubic yards per day (which is *optimistic* because, if wet material is required to be top-loaded, then only a rate of 5,000 cubic yards per day could be achieved), the grading for the shear key and buttress construction alone will require 35 months to complete – which is nearly *twice* the duration estimated in the DSEIR. This extended period of grading will also expose the inherently unstable conditions at this site during grading to at least three, if not four, rainy seasons and this has not been accounted for the DSEIR.

Response

Please refer to response to comment CCBG.3-6

CCBG.3-15

(g) Appendix D of DSEIR 566 ("Geotechnical Environmental Impact Report") presents a brief commentary regarding the geotechnical conditions at this site, and a brief review of recommendations for mitigating and remediating adverse conditions. The county of Orange Grading Manual (Board of Supervisors Resolution No. 81-1358) and current geotechnical practice require a geotechnical review of 40-scale grading plans to be prepared by the developer's geotechnical investigation was performed in 1994, but was done in connection with a different project that involved less extensive grading. Subsequent investigations have focused on EIR issues, and have not provided the required specificity to analyze the significant effects of the grading, including impact of dewatering during and fol+lowing construction, slot cutting or staged excavation to assure ongoing support of landslide masses to be stabilized, backcut and forecut slope inclination, and groundwater water control criteria. The grading plan review report should include all recommendations and geotechnical criteria necessary for a grading contractor to prepare a bid go accomplish the rough grading, and this report should be made part of the DSEIR.

Response

Please refer to response to comment SFC-1.

CCBG.3-16

Comment

(h) Proposed mitigation measure AM-47 on page 4-33 of the DSEIR references total settlements of 4 to 6 inches or more in some areas, and suggest "the degrees and rates of settlement shall be analyzed during the final design phase." The grading plan review report

is an appropriate document for this analysis. However, the report should be prepared now, instead of later, and should be made part of the DSEIR.

Response

Please refer to response to comment SFC-1.

CCBG.3-17

Comment

(I) A cursory review of the "Phase I" grading plans for a portion of the Project underscores the need for access to the grading plan review. For example, with respect to the proposed buttress excavation near the intersection of El Toro Road and the proposed main entrance road to the Project (Saddleback meadows Drive), the main question to be answered by the grading plan review is how much back slope can be open at any one time to ensure only the 10% slope failure rate predicted in the DSEIR?

Response

Please refer to response to comment SFC-1.

CCBG.3-18

Comment

(j) Since the remedial grading quantities are 3.5 times greater than the onsite cut/fill quantities, a large, accessible area will be needed for stockpiling and drying operations, but the grading plans are silent on this point. Will off-site areas be needed for stockpiling and for processing wet material? Another question to be answered is how will the slope rights beyond the limits of grading shown on sheet 4 of 13 of the grading plans be obtained in order to construct the buttress? The questions must be answered before the Grading Application can be approved, and thus they should be addressed in the DSEIR.

Response

All grading is proposed to be completed onsite, as documented in Section 4.2.2 of the DEIR.

CCBG.3-19

Comment

In conclusion, the Society sincerely hopes that, in light of ;the important questions and issues raised above regarding the geotechnical impacts of the Project, the Department will request the Applicant to substantially revise and supplement the "Soils and Geology" section of DSEIR 566 so that the DSEIR can be recirculated for public review and comment once all of the grading plans and the grading plan review have been made part of the DSEIR. AT that point, the Society and its consultants will be in a much better position to understand and comment on the true environmental effects of the proposed grading and the feasibility of the mitigation measures designed to lessen such impacts. Thank you in advance for the Department's anticipated cooperation in this regard.

Response

Please refer to response to comments CCBG.3-1 through CCBG.3-18

APPENDIX A

Letters Received from Commenting Agencies, Groups and Individuals

APPENDIX B

Letter from Thomas B. Mathews to CONNOR, CULVER, BLAKE & GRIFFIN, LLP, Edmond M. Connor, August 12, 1997

Letter from Thomas B. Mathews to SFC CONSULTANTS, Sandra F. Jacobs, August 14, 1997

Letter from Thomas B. Mathews to RUTAN & TUCKER, LLP, David B. Cosgrove, August, 1997

Letter from Thomas B. Mathews to SADDLEBACK VALLEY UNIFIED SCHOOL DISTRICT, Mary Lou Smith, August 14, 1997

William S. Craycraft
Mayor
Susan Withrow
Mayor Pro Tem
Sherri M. Butterfield
Council Member
Thomas R. Potocki
Council Member
Larry Smith
Council Member

City of Mission Viejo

August 11, 1997

Mr. George Britton, Manager
Environmental & Project Planning Services
COUNTY OF ORANGE
P O Box 4048
Santa Ana, CA 92702-4048

SENT VIA FACSIMILE
10:40 am 8/12/97
FAX: 834-6132

Dear Mr. Britton:

SUBJECT: DRAFT EIR 566 FOR THE SADDLEBACK MEADOWS PROJECT
GRADING FOR RECORDED TRACT NO. 10692

The City of Mission Viejo is in receipt of the subject Draft EIR and understands the project as proposed to consist of phased development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure, on a 222.23 acre site on the easterly side of El Toro Road in the unincorporated territory of the County of Orange. The gross residential density is 3.17 dwelling units per acre, with minimum lot sizes of 2,630 square feet. Fourteen (14%) percent of the project site is proposed to remain in undisturbed, natural open space and 57.6% of the site will remain in total open space. In addition to the residential component, the project also proposes eight private park sites, regional riding/hiking trail connections, and a construction of a water tank site dedicated to and accepted by, the Trabuco Canyon Water District. Project implementation requires approval of a grading plan. The grading permit application (GA960048), the project subject of this Draft Environmental Impact Report, is based on Tract 10692, which was recorded December 16, 1988.

The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor Specific Plan, and is located approximately one-half mile south of the El Toro Road/Live Oak Canyon Road intersection. Implementation of the proposed project would directly effect 191.39 acres of the project site, including remedial grading and fuel modification requirements and 19.77 acres offsite, for a total impact area of 211.16 acres.

A total of 2.6 million cubic yards of conventional grading and 8.9 million cubic yards of remedial grading would be required to implement the project.

The City of Mission Viejo has the following comments on DEIR 566 for the Saddleback Meadows Project:

25909 Pala • Suite 200 • Mission Viejo, California 92691 FAX 714/470-9140 714/470-3000

GENERAL COMMENTS

The City of Mission Viejo is concerned with the numerous unavoidable adverse impacts of the subject project. These impacts are as follows:

1. Gross land use incompatibility with (1) O'Neill Regional Park, (2) the Ramakrishna Monastery, and (3) St. Michael's Abbey;

2. Major landform alteration/modification including cut and fill slopes up to 120 ft. in height;

3. Loss of 154.13 acres of onsite habitat and reduction of native habitats and sensitive and non-sensitive species dependent on those habitats, including (1) southern sycamore woodland, (2) coast live oak woodland, (3) coastal sage scrub, (4) mulefat scrub, and (5) ephemeral ponds;

4. Project and cumulative contribution to regional adverse air quality conditions, since the project is located in a non-attainment area with incremental increase in air pollution as a result of vehicle emissions;

5. Increased traffic and urban activity resulting in increased noise in the area;

6. Loss of Riverside fairy shrimp habitat (ephemeral ponds) and individuals, a federally listed endangered species; and

7. Urban landform visual impacts to (1) O'Neill Regional Park, (2) Ramakrishna Monastery, and (3) St. Michael's Abbey.

TRANSPORTATION COMMENTS

1. DEIR Transportation Analysis:
   There appears to be a major discrepancy in the Draft EIR's discussion and analysis of the transportation/circulation impacts resulting from the proposed project. This discrepancy needs to be reconciled and corrected in a revised Draft EIR document.

   As background, transportation/circulation impacts are summarized and presented in Volume 1 of Draft EIR 566. The basis of the Volume 1 discussion is stated to be a project-specific traffic study that is referenced and included in Volume 3 of the Draft EIR: Appendix F.

   Volume 1 states that the proposed project will generate 6,220 trip ends per day, with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the

SFC
Consultants

August 5, 1997

Mr. Ray Brantley
Orange County Planning and Development Services Department
Environmental and Project Planning Services Division
300 N. Flower, Room 321
Santa Ana, CA 92702-4048

Subject: Saddleback Meadows - Request For Time Extension on Comments to Draft EIR 566

Dear Mr. Brantley:

I want to thank you and Bill Grieman again for providing for me, not only the previous EIR's for Saddleback Meadows, but for providing a desk and room for me to review these documents in your office.

While I intend to provide the County with my comments to Draft EIR 566, I would like a reasonable period of time to review the current Phase I grading plans which are referenced in the Draft EIR. My objective would be to determine whether the Draft EIR adequately addresses the impacts associated with the proposed grading shown on the grading plans. Unfortunately, I have been informed that the grading plans, which are the subject of the grading permit application, are not currently on file at the County for me to review at this time. I was able to review an older version of the grading plans that Bill Grieman had available. However, I have been told that I can make separate arrangements with the applicant to obtain a copy of the current grading plans, but that would take additional time and money that I had not planned on spending. Under the circumstances, I would ask that I be provided with an extension of time to submit comments on the Draft EIR, after I have had a chance to review the grading plans, which I hope will be made available at the County shortly.

I am requesting a three-week extension to the September 12, 1997 deadline, to review not only the grading plans, but also to review the files to the Zone Changes previously approved by the County. I have asked the Clerk of the Board to pull files for the following Zone Change Applications: ZC 79-24, ZC 82-63 and ZC 84-3, and I have received a call back from Beverly at the Clerk of the Board, indicating that these files should be available for my review sometime this week.

Please let me know whether your office will be able to accommodate my request for the three-week time extension to submit comments on the Draft EIR. The August 12 deadline is coming on too fast for me to be able to complete my review of all the necessary documents, particularly the grading plans, so I hope that you will be able to grant me the extra time I have requested. Please call me with your response.

Thank you again for your consideration.

Very truly yours,

SFC Consultants

Saundra F. Jacobs, REA
Principal

26012 Marguerite Parkway, Suite H424, Mission Viejo, CA 92692
Telephone. (714) 859-5852 Fax: (714) 581-2577 Email: sfc@pacbell.net

San Joaquin Hills Corridor Agency
Chairman, Peter Buffa Costa Mesa

Foothill/Eastern Corridor Agency
Chairman Mike Ward Irvine

TRANSPORTATION CORRIDOR AGENCIES

William Woollett, Jr
Chief Executive Officer

Walter D Kreutzen
Chief Operating Officer

Colleen E. Clark
Chief Financial Officer

Jerry E Bennett
Chief Engineer

July 16, 1997

George Britton, Manager
Environmental & Project Planning Services
300 N. Flower St., Third Floor
P.O Box 4048
Santa Ana, CA 92702-4048

Subject: Draft EIR 566 for Saddleback Meadows

Dear Mr. Britton:

Thank you for providing the Transportation Corridor Agencies (TCA) with the opportunity to review and comment on the subject Draft EIR. Staff has reviewed the Draft EIR and has no comments at this time. If you have any questions regarding this correspondence, please contact Laura Coley Eisenberg of my staff at (714) 513-3482.

Sincerely,

Steve Letterly, Director
Environmental Management

201 E SANDPOINTE AVE., SUITE 200, P.O. BOX 28870, SANTA ANA, CA 92799-8870 714/436-9800 FAX 714/436-9848
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STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY PETE WILSON, G

DEPARTMENT OF TRANSPORTATION

DISTRICT 12
2501 PULLMAN STREET
SANTA ANA, CA 92705

July 17, 1997

Raymond Brantley
County of Orange
Planning & Development Services
300 North Flower Street
Santa Ana, CA. 92702

IGR/CEQA

SCH#96121072

Subject: Saddleback Meadows Draft Subsequent Environmental Impact Report

Dear Mr. Brantley:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report for Saddleback Meadows. The proposed project is for the phased development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure. The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor approximately 1/2 mile south of the El Toro Road/Live Oak Canyon Road intersection. Caltrans District 12 is a reviewing agency and has no comment at this time.

Please continue to keep us informed of future developments which could potentially impact our State Transportation Facilities. If you have any questions, or need to contact us, please call Aileen Kennedy on (714) 724-2239.

Sincerely,

Robert F. Joseph, Chief
Advance Planning Branch

C: Tom Loftus, OPR
Ron Helgeson, HDQTRS Planning
Tom Persons, HDQTRS Traffic Operations
T.H. Wang, Traffic Operations South

Robert A. Hamilton

June 29, 1997

RECEIVED
JUL 01 1997
Environmental & Project Planning

George Britton
County of Orange
Environmental & Project Planning Services Division
300 North Flower Street, Room 321
Santa Ana, CA 92702-4048

Comments on DSEIR No. 566; Saddleback Meadows

Dear Mr. Britton:

On behalf of the Orange County chapter of the California Native Plant Society (CNPS), and on my own behalf as a wildlife biologist, I offer the following comments on Draft Subsequent EIR No. 566. My knowledge of the CEQA review process, as it applies to biological resources in Orange County and the region, derives from over eight years' experience as a full-time biological consultant based in Orange County. During this time, I have prepared numerous biological technical reports for CEQA documentation covering large and small projects throughout Orange County and elsewhere in the region. I've certainly never encountered a situation where a project, once denied because of its incompatibility with applicable planning and zoning laws, was resubmitted in a form that actually flaunts the law more flagrantly than it did the first time around. I know better than to inquire about the circumstances under which such a ridiculous situation has come to be, or to spend much time actually considering the new development scheme.

On 29 February 1996, I submitted a letter to the County of Orange (County) commenting on DEIR No. 561, which covered the applicant's previously proposed project on this same site. This letter contained 26 comments (many more, actually, but that's the number that were responded to in any form). Most of my comments addressed the DEIR's factual errors and internal inconsistencies. I also suggested a number of realistic solutions to problems that I identified.

I have just completed a review of the responses prepared by the applicant/County in response to my previous letter, and now remember afresh that most of my direct questions and comments were sidestepped, ignored, vaguely acknowledged, or responded to in a manner that obfuscated the comment's intent. This, combined with the fact that the new project makes no pretense of complying with planning and zoning laws, or the concerns of this community, indicates to me that the applicant/County has no meaningful interest in my thoughts or opinions.

I'm sure this is a common reaction of citizens who commented on the previous DEIR, but I find the situation particularly confounding, as the County recently selected me to serve on the 37,000-acre Nature Reserve of Orange County's Technical Advisory Committee. According to the 23 May 1997 appointment letter that I received from Executive Director Tim Neely, this committee will "serve as advisors to the Board of Directors on issues relating to monitoring, management and science." These are precisely the types of issues that I have commented on with regard to this project. I can't be an ignorant gadfly and a trusted scientific advisor simultaneously, so I ask the County to make up its mind.

20571 Sycamore Drive ~ P.O. Box 961 ~ Trabuco Cyn, CA 92678 ~ (714) 459-2875 (Phone/Fax)

Finally, I ask at least one County planner to review the responses that the applicant's consultants gave to my previous comments on this project; these were given with your approval and under your agency's name. If the goal of the Environmental & Project Planning Services Division is to completely frustrate the few citizens who take the time to read and comment on your EIRs, and to thus subvert the California Environmental Quality Act, you have succeeded.

If the County is interested in taking a step in a more productive direction, I suggest that you spend a few dollars having an outside biological consultant review biological assessments *and* responses to comments prepared for major EIRs. For documents prepared by biologists based outside of Orange County, the reviewing firm should be based within Orange County, as consultants based elsewhere often display limited knowledge of the status and distribution of plant and animal species in Orange County. This simple and relatively cheap process would greatly improve the quality and credibility of the County's environmental documents; it is a fairly common practice for CEQA lead agencies statewide.

Please provide any written responses to this letter to the following address:

Robert A. Hamilton
P.O. Box 961
Trabuco Canyon, CA 92678

Sincerely,

Robert A. Hamilton
Consulting Biologist
Conservation Chair, Orange County CNPS

cc: Tom Wiberg, Foothill Trabuco Specific Plan Review Board (hand-delivered)
Todd Spitzer, Supervisor, Third District (by e-mail)

PM peak hour. In contrast, the traffic study appendix states that the proposed project will generate 8,340 trip-ends per day, with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour. This represents a difference of (1) more than thirty percent on a daily basis; (2) more than fifty percent for the AM peak hour analysis; and (3) thirty percent for the PM peak hour analysis.

This inconsistency is carried forth into the specific tables and exhibits of the respective documents, where Average Daily Traffic forecasts from Existing through Year 2000 to buildout differ between the two documents. For example, page 4-56 of Volume 1 states that the projected ADT's along El Toro Road in the vicinity of the site do not exceed 30,000 vehicles per day. However, the traffic study in Appendix F: Volume 3, identifies that segments of El Toro Road do exceed 30,000 trips per day easterly of the Foothill Transportation Corridor.

Also, even though there is inconsistency between the two volumes on reported ADT and peak hour trips, the Intersection Capacity Utilization (ICU) and Levels of Service (LOS) calculations seem to be similar between the two documents. A Revised Draft EIR needs to explain which trip generation was used for the ICU and Levels of Service calculations, and the DEIR analysis needs to be carefully reviewed to accurately present the transportation impacts of the proposed project. In particular, the City of Mission Viejo will be reviewing the specific impact of project trips on the El Toro Road/Glenn Ranch Road intersection and the Marguerite Parkway/El Toro Road intersection, to determine any potential impacts and require any mitigation to maintain a Level of Service "D" performance standard, as required by the Measure M Growth Management Program.

2. Project Trip Generation:
The project traffic study identifies a residential trip distribution assumption wherein twenty-five percent of the daily traffic would enter/leave the project site using El Toro Road north of the project entrance, and twenty percent continuing along Santiago Canyon Road. The City of Mission Viejo believes this assignment is high. Please clarify the land uses that exist or are proposed north of the project site that would cause one-quarter of the project daily trips to use this segment of El Toro Road, versus using El Toro Road south of the project site to access freeways, major highways, and public facilities. A review of the Draft EIR school assumptions, for example, shows that school attendance is programmed for facilities located in Mission Viejo, Rancho Santa Margarita, and Trabuco Canyon.

The assumptions used in the project trip distribution would have a resultant impact on analyzed intersections south of the project entrance to El Toro Road, and in particular,

would increase Intersection Capacity Utilization (ICU) calculations if a greater percentage of project trips were assigned southerly along El Toro Road.

3. El Toro Road:
El Toro Road is classified as a Major Arterial Highway on the Orange County Master Plan of Arterial Highways (MPAH). A Major Arterial is defined as a six-lane highway with a divided median. The City of Mission Viejo is currently preparing improvement plans to construct El Toro Road to its master plan configuration of a *six-lane, Major Arterial facility*.

Although not specifically stated, the Draft EIR seems to indicate that El Toro Road should be reclassified from a six-lane facility to a four-lane facility. The City of Mission Viejo offers the following comments:

a. The reclassification of El Toro Road from a six-lane Major Arterial to a four-lane Primary Arterial requires the County of Orange to process an MPAH amendment, with the amendment ultimately being approved by the Orange County Transportation Authority (OCTA) board of directors.

It is the City's understanding that such an amendment has not yet been filed with OCTA. Please clarify how the timing of the El Toro Road MPAH reclassification, if proposed by the County of Orange, juxtaposes with the approval of Saddleback Meadows project application(s). Since the DEIR serves as an environmental assessment for the Saddleback Meadows recorded tract map, please clarify whether the right-of-way for El Toro Road has already been reserved for an ultimate six-lane or four-lane facility.

b. The OCTA MPAH guidance manual identifies that a multi-jurisdictional, cooperative process will be pursued with any MPAH amendment that affects more than one jurisdiction. In conjunction with that process, technical data will be prepared and reviewed by Growth Management Area (GMA) forums to determine whether there is consensus on the proposed amendment. Also, in conjunction with that process, an environmental assessment of the MPAH amendment must be completed.

Recognizing that the Saddleback Meadows DEIR is being processed in advance of a requested MPAH amendment, a multi-jurisdictional consensus of the El Toro Road reclassification has not yet been achieved. Technical issues may surface through the MPAH cooperative study process that have not yet been identified in the Saddleback Meadows DEIR. Further, inconsistencies on

project daily traffic volumes are already present in the Draft EIR. The City of Mission Viejo recommends that the transportation analysis in the Saddleback Meadows DEIR should *not* serve as the environmental documentation for the MPAH reclassification of El Toro Road, unless agreed to by representatives of the cooperative study process.

c. The City of Mission Viejo continues to retain El Toro Road, within its jurisdictional boundaries, as a six-lane Major Arterial facility. The jurisdictional boundary between the City of Mission Viejo and the County of Orange generally lies immediately east of the Glenn Ranch Road intersection at El Toro Road.

4. Glen Ranch Road/El Toro Road Intersection Improvements:
In reviewing the Intersection Capacity Utilization (ICU) projections for the Glenn Ranch Road/El Toro Road intersection, the City of Mission Viejo is concerned that the Glenn Ranch Road/El Toro Road intersection could become a bottleneck as one transitions, north to south, from a four-lane facility to a six-lane facility. This intersection must be guaranteed for maximum feasible improvement to insure that a Level of Service "D" performance standard is maintained, in compliance with Measure M Growth Management Program requirements.

The County of Orange will need to be an active participant in the maximum feasible improvement to the Glenn Ranch Road intersection, since:

a. The DEIR identifies that seventy-five percent (75%) of the project trips will use this intersection, and the intersection will experience Levels of Service F sometime between Year 2000 and Year 2020 performance unless roadway improvements are appropriately phased. The timing of El Toro Road improvements is important because the project traffic study identifies that El Toro Road can remain a two-lane facility through project build-out.

b. The County of Orange will be deeded a 7.710 acre parcel for open space purposes from the Mission Viejo Company. This parcel (a portion of Parcel 4 of PM 89-115) is located south of El Toro Road and immediately west of the Glenn Ranch Road intersection (see attached Exhibit). The City of Mission Viejo will require that appropriate rights-of-way be secured along the open space parcel frontage to achieve a major arterial cross-section and intersection improvements to Glenn Ranch Road that meet projected traffic demand.

5. El Toro Road Mitigation Measure AM4-16:
Mitigation Measure AM4-16 states that "north of the Foothill Transportation Corridor, El Toro Road can accommodate projected traffic volumes with the proposed project on four travel lanes divided by a raised or striped median. Implementation of a full Major Arterial cross-section is not needed to serve future traffic volumes. This alternative section represents a modification of the typical cross-section for a Primary Arterial. Appropriate transitions would be required between this cross section and other modified cross sections along El Toro Road south of Glenn Ranch Road."

As identified above, the City of Mission Viejo is improving El Toro Road as a six-lane facility from the FTC to Glenn Ranch Road, consistent with its MPAH arterial designation. The City of Mission Viejo recommends that Mitigation Measure AM4-16 include reference that the City of Mission Viejo review and participate in the County of Orange's development of improvement plans for El Toro Road, to insure that:

* El Toro Road is phased and constructed to achieve a roadway cross-section that effectively transitions to the proposed interim two-lane facility;

* El Toro Road can transition from a six-lane facility in the City of Mission Viejo to a four-lane facility in county unincorporated area, while achieving a Level of Service "D" performance standard at the Glenn Ranch Road/El Toro Road intersection through Year 2020.

6. Inventory of Assumed Circulation Improvements:
The project traffic study—Appendix F- -identifies a Year 2020 scenario in which levels of service at a City of Mission Viejo intersection is projected at Level of Service F: Marguerite Parkway at El Toro Road. The City's performance standard is Level of Service "D".

The Draft EIR should be revised to include a mitigation measure that requires the applicant to assess, calculate and provide a fair-share contribution to transportation/circulation improvements at all impacted City of Mission Viejo intersections.

In addition, the County of Orange proposes, through this project (DEIR), the Year 2020 improvement program of northbound dual right turn lanes at the Marguerite Parkway (NS)/El Toro Road (EW) intersection. This proposed improvement is *not* acceptable to the City of Mission Viejo. The City of Mission Viejo does not have any intersection with dual right-turn lanes; and recommends that the Draft EIR analyze an alternative improvement program that will mitigate the Level of Service "F" condition.

August 7, 1997

County of Orange
Planning & Development Services Department
P.O. Box 4048
Santa Ana, Ca 92702-4048

Attention: George Britton

Southern California
Gas Company
Mailing Address
Box 3334
Anaheim, CA
92803-3334

Subject: Draft EIR 566 for the Saddleback Meadows Project Grading for Recorded Tract No. 10692.

This letter is not to be interpreted as a contractual commitment to serve the proposed project, but only as an information service. Its intent is to notify you that the Southern California Gas Company has facilities in the area where the above named project is proposed. Gas service to the project could be served from an existing main as shown on the attached atlas sheet without any significant impact on the environment. The service will be in accordance with the company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.

The availability of natural gas service, as set forth in this letter, is based upon present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under the jurisdiction of the federal regulatory agencies. Should these agencies take any action which affects gas supply or the condition under which service is available, gas service will be provided in accordance with revised conditions.

Residential (System Area Average)	Yearly
Single-family	750 therms/year/dwelling unit
Multi-family units	475 therms/year/dwelling unit

These averages are based on total gas consumption in residential units served by Southern California Gas Company and it should not be implied that any particular home, apartment or tract or homes will use these amounts of energy.

We have developed several programs which are available, upon request, to provide assistance in selecting the most energy efficient appliances or systems for a particular project. If you desire further information on any of our energy programs, please contact this office at 1(800)427-2000. for assistance.

Sincerely,

Robert S. Warth/Myron Spencer
Robert S. Warth
Technical Supervisor

jpc
attachment

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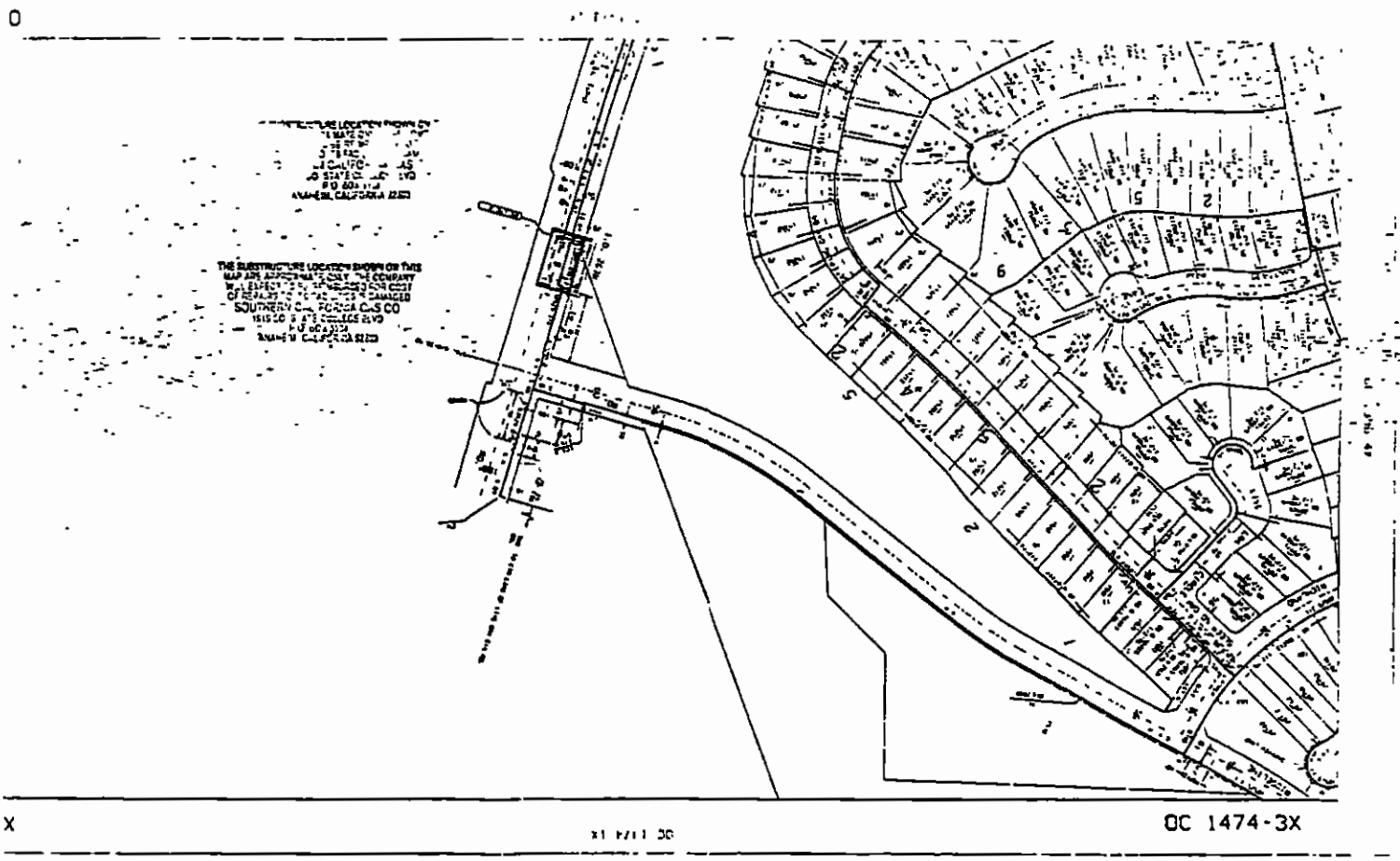
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U.S. Fish & Wildlife Service
2730 Loker Avenue West
Carlsbad, CA 92008
(619) 431-9440
FAX: (619) 431-9618

CA Dept. of Fish & Game
1416 Ninth Street
PO Box 944209
Sacramento CA 94244-2090
(916) 653-9767
FAX: (916) 653-2588

Mr. Raymond Brantley
Environmental & Project Planning Services
300 N. Flower St.
P.O. Box 4048
Santa Ana, California 92702-4048

AUG 0 8 1997

Draft Subsequent Environmental Report (DSEIR) No. 566 for the Saddleback Meadows Project, Orange County, California.

Dear Mr. Brantley:

The U S. Fish and Wildlife Service (Service) and California Department of Fish and Game (Department) Natural Community Conservation Planning (NCCP) program staffs (i.e., "the Wildlife Agencies") have reviewed the above DSEIR. The project is located within the Southern Subregion Orange County NCCP Planning Area, near the border with the NCCP Central Subregion. The preferred project proposes the phased development of 705 manufactured, single-family residential units on a 222.9-acre site near the intersection of El Toro Road and Live Oak Canyon Road, impacting a total of about 191 acres on site and 20 acres off site. About 14% of the project site is proposed to remain as open space.

Biological resources on site include about 65 acres of coastal sage scrub (CSS), 14 acres of oak woodland, and about four acres of wetland vegetation communities. The federally endangered Riverside fairy shrimp (*Streptocephalus woottoni*) is known to occur within at least seven wetlands (identified in the DSEIR as "ephemeral ponds") spread throughout the site. Several plant and animal species considered sensitive by the Wildlife Agencies occur (e.g., cactus wren [*Campylorhynchus brunneicapillus*]) or may occur. The coastal California gnatcatcher (*Polioptila californica californica*) hereafter "gnatcatcher," a federally threatened species, is likely to occur on site based on the presence of CSS and gnatcatcher-occupied CSS in surrounding areas. The Quino checkerspot butterfly (*Euphydras editha quino*), a federally endangered species, may occur as well.

Along with the No Project/No Development Alternative ("Alternative 1") required by the California Environmental Quality Act (CEQA), there are four other alternatives presented in the DSEIR. Alternative '1' would avoid any adverse environmental impacts to the project site. Alternative '2' proposes 150 housing units with a minimum lot size of 20,000 feet^2, disturbing more than 138 acres. This would result in elimination of oak woodlands, CSS, and ephemeral ponds of which some rare and sensitive species are obligate residents. Noise decibel levels would increase and possibly affect wildlife in adjacent O'Neill Regional Park. Alternative '3' proposes

100 single family units on a 31.7 acre portion of the site. This alternative avoids about 191 acres of habitat, thereby appearing to allow connection between open space areas north, south, and east of the project site. However, this project alternative will impact two ephemeral ponds and CSS habitat. Alternative '4' proposes 299 housing units, disturbing about 165 acres. A wildlife corridor, narrowing to 400 feet in width and going up a nearly vertical slope, is proposed to be bisected by a road. Alternative '5' proposes 318 housing units within a development area of 113 acres, leaving about 110 acres in open space. The wildlife corridor would be the same as for Alternative '4' except that the minimum width would be about 700 feet. The proposed project appears to conflict with the earlier-adopted Foothill-Trabuco and Aliso Creek Corridor Specific Plans and also fails to describe adequate project design for maintaining corridor integrity of the Orange County NCCP Reserves. In evaluating alternatives 2-5, Alternative '3' would have the least environmental impact, but would nonetheless, substantially impact wildlife corridor integrity between subregional NCCP reserve areas in Orange County.

The Wildlife Agencies have formally commented at different stages of the proposed project. We have also met with the project applicant and their consultants, including a meeting at the project site on May 20, 1996. On June 29, 1994, the Service wrote a letter stating that project approval must be deferred until the Southern Subregion NCCP was finalized. In 1996, both agencies commented on the DEIR (No. 561). The Service letter stated that the location of this development within and adjacent to occupied habitat of rare species could compromise the NCCP reserve and its ability to function as a wildlife corridor through the direct and indirect impacts of habitat destruction, fragmentation, noise, and lighting. Our comments were based upon a project alternative, similar to alternative four, which provided more open space than the proposed preferred alternative presented in this DSEIR.

In general, the DSEIR does not adequately describe the biological resources of the project area. The document only describes and analyzes impacts of the different alternatives in a superficial manner. Referring to our joint Wildlife Agency letter of January 30, 1997, responding to the Notice of Preparation, at least eight of our requested information items were completely or partially ignored, without explanation. Available data were not identified. Further, the Initial Study (p. 17) states that the scope of the EIR discussion will provide a "detailed discussion" and "[A] re-inventory of the existing unique, sensitive . . . flora and fauna within the project site . . . " Also to be provided was "[A] detailed analysis of the project's impacts to wildlife movement, including mitigation measures to avoid or reduce those impacts." Neither of these items was adequately accomplished.

The Wildlife Agencies offer the following specific information and recommendations to assist the County and the project applicant in planning for the preservation of sensitive wildlife species, habitats, and wildlife corridors within the proposed project area, and as a means to assist you in complying with pertinent statutes. Page numbers refer to the DSEIR unless otherwise noted.

1-1, paragraph 2 and 4-41, paragraph 4. Both of these statements should read as "affect."

4-41, exhibits 21, 22, 53. Interference with existing hydrology on site is shown with the construction of the preferred alternative. Impacts to "ephemeral ponds" not directly within the project footprint would also occur. Analyze these impacts further.

4-43, last paragraph. The Wildlife Agencies disagree with the conclusions that there would be ". . . no unavoidable adverse impacts to surface or groundwater hydrology" and that water quality impacts would be " . . . to less than significant levels" since current hydrological conditions support the existence of these areas. Implementation of the preferred alternative, including alteration of drainage patterns, would result in the direct loss of a minimum of seven ephemeral ponds on site.

4-110. The noise impact analysis is cursory and needs to refer to appropriate literature attributing impact to avian populations due to noise. Also, in the cases of "major airport runways" the analysis is biased by not considering adjacent land use changes in the context of the distribution of the coastal California gnatcatcher.

4-119, paragraph 2. There was no Service protocol for presence/absence of gnatcatchers in 1993 and 1994.

4-122, exhibit 50. Western spadefoot toad (*Scaphiopus hammondi*) is identified in the exhibit (and on page 4-137) as occurring on site; however, the discussion about amphibians on page 4-126 states that "[N]o amphibians were observed during the surveys of the site." Correct this discrepancy.

4-123, paragraph 2. Add that the NCCP refers to the Southern Orange County Subregion to distinguish this planning effort from other ongoing and completed efforts.

4-125, "Ephemeral Ponds." The Wildlife Agencies disagree with the assertion that "all of the ephemeral ponds were artificially created a number of years ago..." Given the geological conditions of frequent landslides in the area, these wetlands could have been "slump" or "slope" ponds that underwent human modification at a later time. These types of wetlands are known in both Orange and San Diego counties. Further information is needed in the DSEIR regarding the origin of these wetlands in the context of the proposed impacts.

As identified by Marie Simovich, Ph.D., a consultant for the former applicant, some of the on site wetlands contain a high diversity of aquatic invertebrates, strongly suggestive of the more natural origin of these wetlands. Known to occur in at least some ponds with Riverside fairy shrimp and western spadefoot are cladocerans (e.g., *Daphnia*, 2 or 3 species likely), copepods, ostracods (seed shrimp), and clam shrimp (*Cyzicus californicus*). Clam shrimp have a restricted distribution in coastal southern California. Further information is needed in the DSEIR regarding aquatic invertebrates in the context of the proposed impacts.

4-126. Invertebrates, last sentence. The DSEIR states that "[H]undreds of additional invertebrates are expected to use the site." No data are provided to support this statement. The Wildlife Agencies presume that this statement refers to the expected number of species, not the number of individuals. Please qualify and support the statement.

4-126. Amphibians. The last sentence erroneously implies that the distribution of amphibians is restricted to steep slopes. No data are provided to support this statement. The likely widespread distribution on site of western spadefoot toad, Pacific treefrog (*Hyla regilla*), and western toad (*Bufo boreas*) needs to be noted and discussed. Please revise the discussion.

4-126. Reptiles. The correct name is the orange-throated whiptail lizard. Please correct this name throughout the document (e.g., 4-138, -147).

4-130, paragraph 1. The DSEIR states that the "[Southern] subregion will incorporate public lands of the Cleveland National Forest (CNF)." We suggest that this statement be removed or properly qualified since no additional conservation benefits would occur unless the U.S. Forest Service (USFS) is a signatory to an NCCP agreement. The USFS is not participating in the Orange County Central/Coastal NCCP and has not indicated that it wishes to be a "participating landowner" in the Southern Subregion. The DSEIR should not presume that future CNF management activities will be compatible with an NCCP.

4-130, paragraph 2. The DSEIR states that the gnatcatcher is not found onsite. Surveys to current Service protocol were not done. The last gnatcatcher surveys were done in 1994. Surveys should be conducted according to Service protocol to determine the baseline status for the species. The results of these surveys will be needed to assess impacts, including the number of gnatcatchers subject to "take," in accordance with the Intra-Service Biological Opinion for the 4(d) rule.

4-130, paragraph 3. The correct name is the Central-Coastal Subregion.

4-130, paragraph 4. The DSEIR refers to the "disturbed nature of the site" in the context of fulfilling wildlife corridor "needs in the area." No additional information is provided to support this assertion. The existing landscape linkages and documented presence of mountain lion (*Felis concolor*), mule deer (*Odocoileus hemionus*), and coyote (*Canis latrans*), all of which would use a wildlife corridor within the project area, needs to be noted and discussed. Mountain lion movement through the area was not disclosed in the DSEIR. This study was undertaken by Paul Beier, Ph.D, and reported in the scientific literature. For further explanation of our request that these data be disclosed and discussed in the context of this proposed project, refer to item number eight in our joint wildlife agency letter of January 30, 1997.

4-131, exhibit 51. This exhibit is difficult to interpret since it was originally a color map of larger size. For example, gnatcatchers and cactus wrens are noted in the legend but are invisible on the exhibit. We suggest that the exhibit be redone to show only relevant information.

4-133, paragraph 3. The DSEIR says that "The fragmented nature of much of the coastal sage scrub onsite makes it low quality." However, the current gnatcatcher status is unknown and most wildlife surveys were out of date, having been conducted in 1993 and 1994. The paragraph continues by stating that the steep slopes support the highest diversity of animal species, but no data are provided to support this statement.

4-133, paragraph 3. The site also contains a habitat linkage, also qualifying it as at least "intermediate value" according the Evaluation Logic Flow Chart.

4-136, exhibit 53. One pond identified as a "potential mitigation area" is in the project footprint of the preferred alternative, as shown on exhibits 18 and 22. Since this area would be under housing and infrastructure and no longer in its present condition, please correct this discrepancy.

4-137, paragraph 3. The western spadefoot toad is a California State Species of Concern.

4-137, -139, and -148 state that the site "must be considered occupied by gnatcatcher until proven otherwise." This is inconsistent with the statement on 4-130 that the gnatcatcher is not found on site. Correct and clarify this discussion.

4-139. The distribution information for the gnatcatcher is incomplete. The species occurs in portions of Ventura, eastern Los Angeles, and San Bernardino Counties. The assertion regarding limited slope characteristics is not valid. Gnatcatchers occur on steep slopes, using them for nesting, foraging, and movement.

4-140. The wildlife agencies disagree that focused surveys for the Quino checkerspot butterfly are not warranted. The limited surveys accomplished do not support the assertion that the probability of occurrence is "low." Appropriate habitat (CSS, chaparral, and grassland) exists within the project site. Surveys consistent with the Service 1997 protocol should be completed.

4-141. The correct scientific name for the northern harrier is *Circus cyaneus*. It is properly referred to as a raptor. The accepted common name for *Agelaius tricolor* is the tricolored blackbird. The "C2 (category two)" category was discontinued by the Service in February 1996. The gnatcatcher is a California State Species of Concern.

4-144. There is no analysis of connectivity loss in this discussion of the project in relation to the NCCP Findings. However, 4-148 states that "[T]he project, as currently proposed, may hinder or preclude the preparation of the southern subregional preserve [sic], due to restricted wildlife

movement." Further on page 4-130, paragraph 3 it says, "the project site occupies a linkage area between the Central and Southern NCCP Subregional preserves [sic], where a wildlife corridor is needed." Please clarify and further analyze this crucial issue. We suggest explanatory text with an exhibit or exhibits specifically rendered.

4-145, "Ephemeral Ponds." The use of acreage by itself is inappropriate since it does not sufficiently disclose the impacts of the preferred alternative. The Wildlife Agencies suggest that the number of ponds also be used as a measure of impact. From the diagrams in the DSEIR, it appears that seven of the eight ponds identified as supporting Riverside fairy shrimp would be directly in the project footprint. The other pond would be subject to edge effects and adverse impacts to water quality. This impact is not apparent when only the acreage figure is considered.

4-147, Western spadefoot toad. The DSEIR states that the population is small in size. However, no data are provided to support this statement such as the results of a scientifically valid population survey. In the absence of data, we suggest that the statement be eliminated.

4-148, Wildlife Movement. The statement "It can not [sic] be assumed that wildlife would be able to move through the project site..." should be further explained. Further explanation is needed since it is known that there would be the virtual elimination of wildlife and their movements in a high density residential development as the preferred alternative proposes.

4-151, -152, Conceptual Mitigation Program. The last sentence on 4-151 states that the program was developed based on input from the wildlife agencies. Regarding the mitigation ratios presented, the DSEIR provides no rationale to support these ratios. Further, the position of the Wildlife Agencies is that the ratios are unjustified and inappropriately low in relation to the proposed impacts, given other mitigation agreements.

6-3, table 39. The "no project" alternative states that there would be a continuation of grazing impacts. Include that this is a discretionary landowner activity, otherwise unrelated to the proposed project.

6-4, paragraph 1. The DSEIR states that "[O]ngoing degradation of onsite biological resources related to cattle grazing operations would continue to occur." This degradation should be further described. For example, on our May 20, 1996 site visit, Wildlife Agency representatives observed cattle within some of the onsite wetlands. We also observed apparently free-ranging horses nearby. Further discussion of the presence of livestock and horses is needed in relation to impacts to Riverside fairy shrimp, other invertebrate species, and CSS. Crushing of fairy shrimp "cysts" and adverse changes to water quality are likely to occur within ponds subject to use by cows and horses. Literature references showing CSS impacts due to grazing should also be referred to and discussed.

6-4, and continuing. The discussion of biological resources impacts is cursory, allowing extremely limited comparison opportunity among the alternatives. A detailed matrix chart of alternatives versus type and amount of habitat impact (e.g., CSS, Riverside fairy shrimp) would help to synthesize the data. However, it appears that alternative three, the 100 unit alternative on 32 acres, would directly avoid seven of the eight ponds occupied by Riverside fairy shrimp, most of the loss of CSS habitat, as well as minimize impacts to wildlife movement.

8-1. The Inventory of Unavoidable Adverse Impacts should include the amount of CSS loss and the likely "take" of gnatcatchers.

Appendix C, Notice of Preparation (NOP), page 3. Note that our joint Wildlife Agency NOP commented about "Plant/Animal Life."

Appendices D (Conceptual Wetland Mitigation Plan) and E (Conceptual Upland Mitigation Plan) were missing from Appendix 'H,' the Biological Resources Assessment prepared by Sweetwater Environmental Biologists, Inc. The Assessment is a draft, dated March 20, 1997. If an updated version is available, include it in the revised DSEIR.

In conclusion, the DSEIR is inadequate. Major revisions and additions are needed, including completion of updated field surveys and a literature search. For example, the gnatcatcher discussion should include a description and analysis of the regional distribution of CSS, gnatcatcher, and cactus wrens, in relation to the project area. Vegetation maps and species locations in both digitized and hardcover format are available from the County of Orange.

The Wildlife Agencies anticipate that the issues discussed above will be included and addressed in any additional CEQA documents and be presented to the Wildlife Agencies for review and comment. Until the impact assessment and mitigation recommendations are revised to respond to our concerns, the Wildlife Agencies recommend against certification of the DSEIR as currently proposed.

The Wildlife Agencies appreciate working with the County on NCCP conservation planning issues. Lands within the proposed project area are important in conservation planning for the Southern Subregion NCCP Reserve in Orange County. The area of the proposed project is also the only linkage to the NCCP Central Subregion in Orange County. An improperly implemented project would permanently destroy the integrity of the linkage between the

Subregion reserves. If you have any questions or comments please contact Liam H. Davis, NCCP Associate Wildlife Biologist (Department) at 619-467-4207 or Robert James, Fish and Wildlife Biologist (Service) at 760-431-9440.

Sincerely,

Gail C. Kobetich
Field Supervisor
U.S. Fish and Wildlife Service

Ron Rempel
NCCP Program Manager
California Department of Fish and Game

cc: Department of Fish and Game (B. Tippets, P. Wolf, S. Harris, T. Dickerson)
County of Orange (T. Neely)
Rod Meade
U.S. Army Corps of Engineers (L. Morales, S. McNeil)

1-6-97-TA-262
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Attachment D

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August 8, 1997

Mr. Nicholas S. Chrisos
Deputy County Counsel
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P.O. Box 1379
Santa Ana, CA 92702-1379

VIA TELEFACSIMILE
AND FIRST CLASS MAIL
(Fax: 834-2359)

Re: Saddleback Meadows/Draft EIR 566
Request for Re-Noticing of Public Comment Period

Dear Nick:

This will confirm this afternoon's telephone conversation during which you kindly agreed to provide my client, the Vedanta Society of Southern California (the "Society") with an extension of time, to and including next Friday, August 15, 1997, within which to submit comments on Draft EIR 566. You explained that you had consulted with John Buzas and had concluded that, since various County personnel were unavailable to make a final decision on the requests set forth in my August 6 letter to Messrs. Brantley and Greiman, a three-day extension of time seemed to be an appropriate "stop-gap" remedy under the circumstances.

I understand that, when the appropriate personnel are available at the County next week, I will receive a definitive answer to the requests set forth in my August 6 letter. I certainly appreciate receiving the three-day extension, but my firm and the Society's geotechnical consultants still need more time to review the grading plans and the grading plan review before any of us will be in a position to submit comments on Draft EIR 566. Although the public review provisions of CEQA and the State CEQA Guidelines would suggest that we should not have been required to do so, we have already been compelled to make separate arrangements with, and to pay money to, the

developer's agent to obtain the right to review the grading plans for which a grading permit is being sought.

However, even if we were willing to pay additional money for the right to gain access to the grading plan review by the soils engineer of record, we could not do so because that report has not even been completed as of this date. Of course, Appendix D to Draft EIR 566 expressly states that a geotechnical review of the 40-scale grading plans will be prepared to accompany the grading permit application, but, for whatever reason, the grading plan review has not been finalized and is not available for any member of the public to even see it, much less study it in detail. That really puts the Society, and all other members of the public, at a tremendous disadvantage in being able to adequately comment on the Draft EIR.

As I explained to you in my earlier phone message, section 15146 of the State CEQA Guidelines requires that the degree of specificity to be found in Draft EIR 566 must be commensurate with the stage of development that is being evaluated. In other words, since the construction of grading improvements is being analyzed in conjunction with a grading permit application, the *specific* details of the grading, and the impacts and mitigation measures associated therewith, must be addressed in the Draft EIR. Moreover, under section 15147 of the CEQA Guidelines, all technical data, maps, plans, etc., which are necessary to make a "full assessment" of the environmental impacts of the project must be set forth in the appendices to the Draft EIR, and such appendices "shall be *readily available* for public examination." (Emphasis added.)

The California courts have not hesitated to enforce the above requirements by striking down EIRs which have omitted important technical information, even if the information was found to be available from other sources. As stated by our own Fourth District Court of Appeal, "whatever is required to be considered in an EIR must be *in that formal report*; what any official might have known from other writings or oral presentations cannot supply what is lacking *in the report*." (*See, Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 831; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 727.)

As the above authorities indicate, both the grading plans and grading plan review should have been (1) set forth in the Appendices to Draft EIR 566 and (2) readily available to all members of the public during the entire 45-day comment period. Since the County will not issue any grading permit to the developer without the grading plans and the grading plan review having been approved by County staff, these documents should not have been *excluded* from the CEQA review process. However, since these documents were, in fact, omitted from Draft EIR 566 and have never been available at the

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County for public review, I think it only fair that the County take quick action to correct these problems.

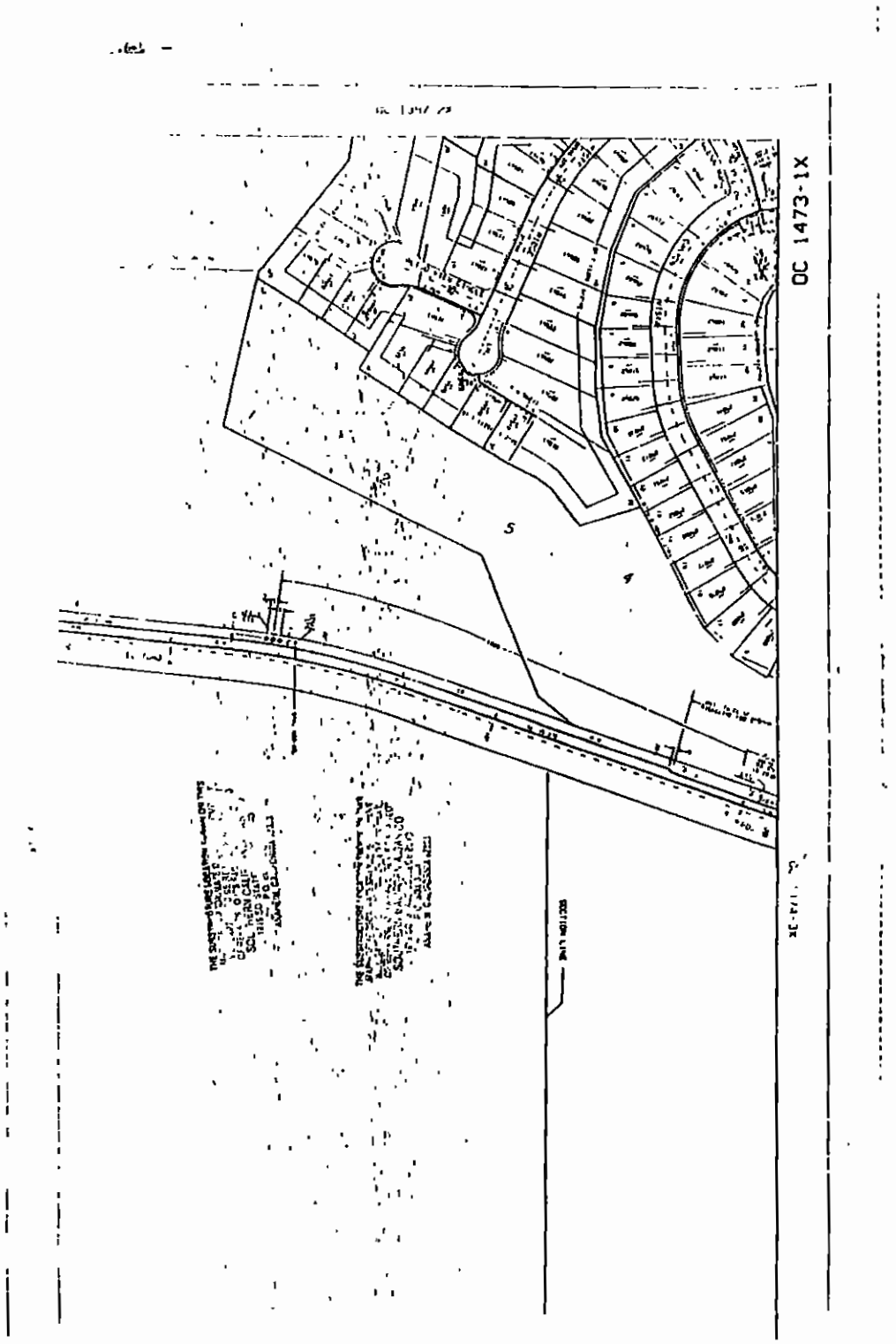
My proposal would be that the County request the developer to (1) complete the grading plans and the grading plan review and submit them to County staff as soon as possible and (2) revise Draft EIR 566 to not only include these documents as part of the Appendices, but also to adequately address them in Volume I of the EIR. Once the grading plans and grading plan review have been made "readily available" for public review, then a new 45-day period for submitting comments on Draft EIR 56 should be re-noticed.

Again, I apologize for burdening you with this issue in Ben de Mayo's absence, but I sincerely believe, Nick, that fundamental fairness, not to mention the strict dictates of the State CEQA Guidelines, requires the County to remedy the problems which have occurred as a result of the grading plans and grading plan review not having been available for public review prior to the expiration of the comment period on Draft EIR 566. The problems are easily corrected as I have suggested above, and I hope the County will do just that. Thank you for your courtesy and cooperation in doing what you can to make that a reality.

Very truly yours,

Edmond M. Connor

cc John B. Buzas
Frank McGill
Raymond H.C. Brantley
William Greiman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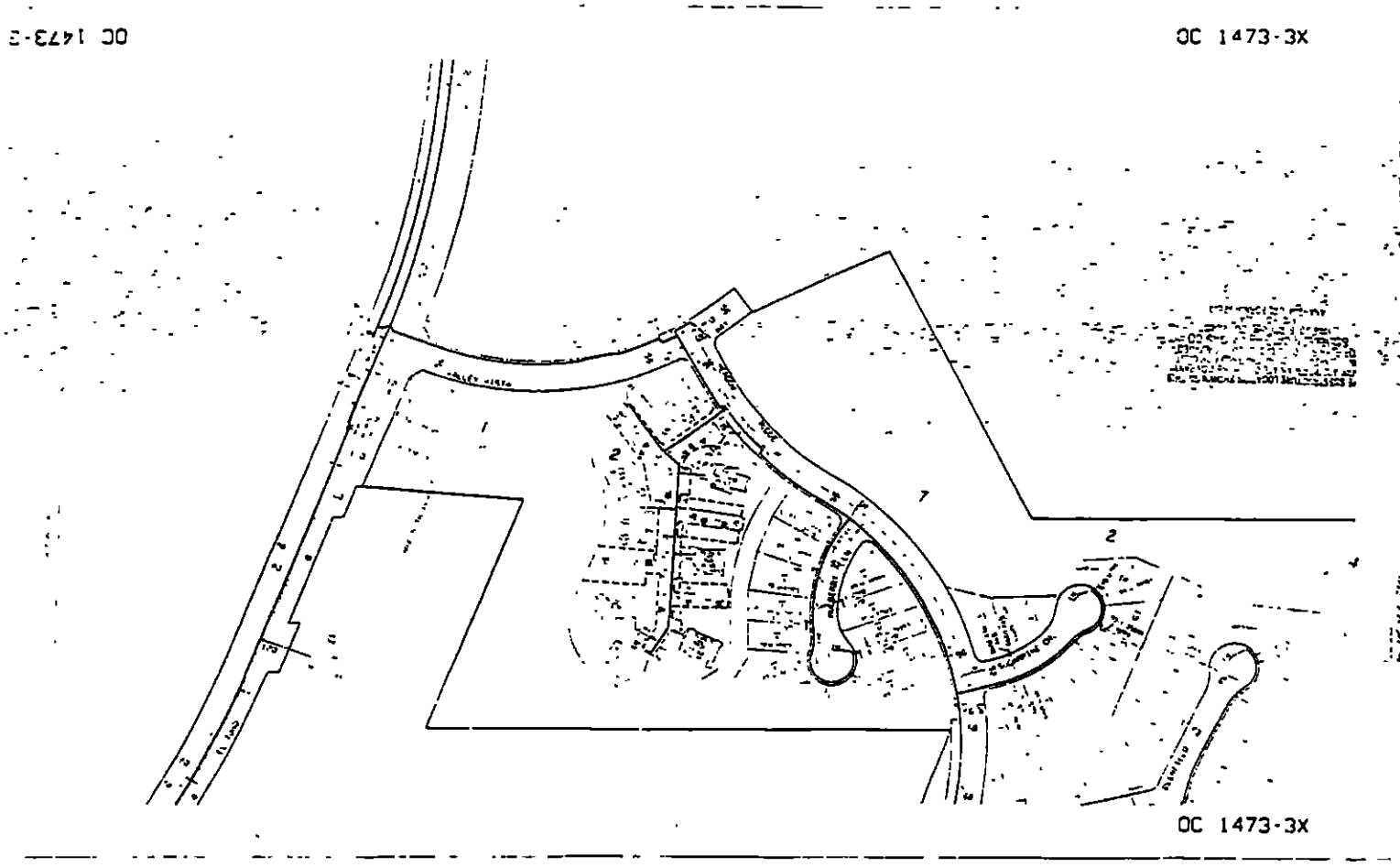
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August 6, 1997

Mr. Raymond H.C. Brantley
Mr. William Grieman
Environmental Planning Section
Orange County Planning & Development
Services Department
300 North Flower Street
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Santa Ana, California 92702-4048

VIA TELEFACSIMILE
AND FIRST CLASS MAIL

Re: Saddleback Meadows Draft EIR 566
Request for Extension of Time to Submit Comments

Dear Messrs. Brantley and Grieman:

As you know, August 12, 1997 is the current deadline for submitting comments on Draft EIR 566, the subsequent environmental impact report which has been prepared in connection with the grading permit application submitted by the developer of the Saddleback Meadows project. Our firm has been asked to submit comments on the Draft EIR on behalf of the Vedanta Society of Southern California (the "Society") which owns and maintains the Ramakrishna Monastery adjacent to the project site. However, due to an unusual set of circumstances, we find ourselves unable to submit comments prior to the August 12 deadline because critically important documents that we and our consultants need to analyze in assessing the adequacy of Draft EIR 566 have not been made available for public review.

The problem that we have encountered is that we have not been able to gain access to the developer's grading plans which are the *sine qua non* of the grading permit application process. Without such plans, no permit can be issued. Moreover, without access to the grading plans themselves, it is *impossible* to comment on the adequacy of Draft EIR 566 which, as stated in the Initial Study, was prepared for the express purpose of evaluating the environmental effects associated with the grading permit application.

Indeed, without being able to review the grading plans, neither our firm, nor the geotechnical consultants which have been engaged on behalf of the Society, can

determine whether Draft EIR 566 properly evaluates the impacts, and adequately addresses the mitigation measures, associated with the proposed grading of the Saddleback Meadows property. Thus, the Society is effectively stymied in its ability to submit adequate comments on the Draft EIR by the August 12 deadline.

Last Friday, during a meeting with Messrs. McGill and de Mayo at the County offices, I asked if I could obtain copies of the grading plans, but I was informed that the County had returned the plans to the developer and no longer had a set available for public review. I was also told that, if I wanted to obtain a copy of the grading plans, I would have to contact the developer directly and make arrangements to pay for copies of the plans to be made. Although my office promptly contacted the developer's agent, TPG Management, immediately following my meeting at the County, and then, first thing Monday morning, messengered a check to TPG to comply with its demand that we pay *in advance* for the cost of copying the plans, several days have gone by and we still have not received any plans as of this writing. I am surprised that it would take more than three days to run blue lines of the grading plans, but, be that as it may, we still do not have them and the August 12 deadline for submitting comments is coming on fast. Under these circumstances, therefore, I would respectfully request that the Society be granted a minimum of a 30-day extension of time to submit its comments on Draft EIR 566.

Actually, I think the proper thing to do in light of the fact that the grading plans have not been available for public review at *any* time during the 45-day comment period for Draft EIR 566 is to circulate a *new* public notice setting a *new* deadline for submitting comments on the Draft EIR. The new time period for submitting comments should not start running until the grading plans are made available for public review at the County.

What should *also* be made available for review and copying at the County is the soils engineer's geotechnical review of the 40-scale grading plans which the Orange County Grading Code requires be submitted *before* any grading permit can be issued. Indeed, without the soils "specs" providing details regarding proposed buttresses, shear keys, back cuts, etc., it is difficult to understand the grading plans. Moreover, it is virtually *impossible* to assess feasible mitigation measures for known geotechnical hazards without having access to the grading plan review prepared by the soils engineer of record.

Please let me know whether the grading plan review by G.A. Nicoll & Associates is available for public review and copying. As you may be aware, Draft EIR 566 specifically states that a grading plan review will be prepared "to accompany the grading permit application." (See Appendix D, p. 4, ¶ 4.) If, as I suspect, Nicoll's grading plan review is *not* available for review and copying, then this would be yet another reason for re-noticing the public comment period on Draft EIR 566. In fact, if the grading

plan review has not been prepared or is unavailable for public review, this would raise serious questions as to the legal adequacy of Draft EIR 566.

I do not wish to criticize the County for what appears to have been a problem created by the developer in not making critical documents available for review, but the fact remains that neither the Society, nor any other "interested party" or member of the public, has been dealt a "fair hand" in being required to submit comments on Draft EIR 566 without being allowed reasonable and timely access to the documents which are the "very heart and soul" of the grading permit application, i.e., the grading plans and the grading plan review. I would greatly appreciate it if your office would rectify this problem by (1) making copies of the grading plans and the grading plan review available for public review at the County as soon as possible and (2) providing public notice to all interested persons that a new 45-day time period to submit comments on Draft EIR 566 has been established. If your office is not inclined to provide all members of the public with such an extension of time, then, at the minimum, I would ask that the Society be provided with the 30-day extension which I have requested.

As a final note, I would ask that my name and address be placed on whatever public notice lists are being maintained by the County in connection with the Saddleback Meadows project and any planning approvals and matters relating thereto. Please add me as an "interested party" on all mailing lists so that I can receive public notice, information, and reports regarding any and all aspects of the Saddleback Meadows property or project. Thank you for your courtesy and cooperation in this regard.

Very truly yours,

Edmond M. Connor

cc: Benjamin P de Mayo, Deputy County Counsel (via telefacsimile)

BOWIE, ARNESON, KADI, WILES & GIANNONE

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RESPOND TO NEWPORT BEACH
REF OUR FILE

17004 M 49.2

August 11, 1997

VIA OVERNIGHT MAIL AND CERTIFIED MAIL, RETURN RECEIPT REQUESTED

County of Orange
Planning & Development Services Department
300 N. Flower Street, Third Floor
Santa Ana, CA 92702

Attn: Mr. George Britton, Manager

Re: Initial Comments of Trabuco Canyon Water District - Draft Subsequent Environmental Impact Report No. 566 - Saddleback Meadows Recorded Tract Map 10692, Grading Application GA960048 - SCH # 96121072

Dear Mr. Britton:

The Trabuco Canyon Water District is in receipt of the above-referenced Draft Subsequent Environmental Impact Report (the "DEIR") prepared in regard to the Saddleback Meadows Recorded Tract Map No. 10692, Grading Application GA960048 (the "Project"). Our firm represents the District as general legal counsel. The District, having reviewed the DEIR, and having consulted with us, has requested our firm to provide your office with the comments set forth herein. It is the District's understanding that the Project will involve the phased development of 705 manufactured single family residential units and a 1.7 acre neighborhood commercial center on a 222.23 acre site. This seems to correspond, generally, to the final tract map (Tract 10692) approved by the County of Orange (the "County") in 1988. However, the District has not been provided with updates of the plans for the Project and, as such, all of the comments submitted with this letter should be interpreted in that light.

The purpose of this letter is to provide to the County, on behalf of the District, various comments and matters relating to the Project, the potential impacts of the Project on the facilities of the District and the District's requested mitigation measure.

Request for Notices

Pursuant to the provisions of the California Environmental Quality Act ("CEQA") and Public Resources Code Section 21092.2, the District hereby requests that copies of all notices and other documents mailed in relation to the above-referenced Project (specifically including, but not limited to, environmental review notices) be furnished both to the District and the undersigned. If there are any fees and charges required for the provision of such notice(s), please provide our office with an invoice for such costs and we will reimburse the appropriate County department. This request for notice specifically includes, but is not necessarily limited to, notices of all hearings, proposed actions to be taken with regard to the developmental process and, in particular, any Notice of Determination prepared, furnished or filed with regard to this Project.

Background Information

We have reviewed various referenced to the Trabuco Canyon Water District, and the District's water and wastewater (sewer) facilities contained within the DEIR. In regard to such matters, we would note the following additional facts which are important for a full and complete understanding of the District's background in providing the comments set forth below. The DEIR correctly notes that two improvement agreements were entered into between the prior owner of the property and District dated September 21, 1988 (see further discussion below). It is relevant to note that in connection with those improvement agreements two performance bonds were posted in order to secure the construction of the relevant water and sewer facilities as required by the terms of those agreements.

The DEIR correctly notes that the District's Capital Improvement Charges ("CICs"), based on 705 residential units, were paid to the District. Those Capital Improvement Charges are levied as part of the District's master financial and facilities planning. Funds from the CICs were expended on various District-wide and master planned facilities in order to be able to furnish water service and water capacity to the property within Tract 10692 (the "Property").

Wastewater (sewer) treatment capacity was purchased in the Santa Margarita Water District ("SMWD") Chiquita Wastewater Treatment System by way of a pass-through payment made by the former property owner to the District and then paid to SMWD. It should be noted that the SMWD Chiquita Wastewater Treatment System is owned and operated by SMWD, and not TCWD. Specified wastewater treatment capacity (based on 705 residential units) was paid for in the Chiquita system and is now available to provide wastewater treatment service for the Property. The major wastewater trunk sewer and downstream lift station facilities were financed for the benefit Property by means of assessment district proceedings pursuant to the relevant provisions of the California Streets and Highways Code. Assessment District No. 5R of the Trabuco Canyon Water District is currently in place and levies assessments on the Property (as well as other properties within the

boundaries of the Assessment District). The major trunk sewer and downstream lift station facilities financed through the Assessment District proceedings (and bonds issued by Assessment District No. 5R secured through the levy of assessments) have been constructed. These are available to provide service to the property based on 705 residential units. However, the related facilities for this Property, identified in the improvement agreements, were not financed and have not been constructed as of this date.

As noted above, the District entered into onsite and master plan improvement agreements relative to the Property (collectively the "Improvement Agreements"). Copies of the Improvement Agreements are attached to this letter as Attachments "A" and "B" and incorporated herein by this reference. The Improvement Agreements were entered into pursuant to TCWD's Rules and Regulations which require improvement agreements to be entered into before the District will authorize, or sign off on, any tract map. Correspondingly, TCWD's approval of Tract Map No 10692 was expressly conditioned on the terms and conditions of the Improvement Agreements, including the bonds submitted to the District to secure the terms and conditions of those agreements. The Improvement Agreements were subsequently assigned, with the District's consent, to a subsequent owner of the Property.

Subsequently, the prior owner of the Property (to whom the Improvement Agreements had been assigned) filed for bankruptcy with the Federal Bankruptcy Court. As a result of prolonged bankruptcy proceedings, the Improvement Agreements, and the corresponding performance bonds, were rejected by the debtor and this action was apparently sustained in the bankruptcy court. Correspondingly, the Improvement Agreements are now of questionable enforceability and the performance bonds have lapsed. Any building or District service assumptions based on the terms of those Improvement Agreements, or dependent on them, are thus suspect until new agreements with the District are reached. In this regard we would specifically note that the District's Rules and Regulations (see Government Code Section 31024) require improvement agreements to be entered into in order for the District to approve tract maps and for the District to provide water and wastewater service to any property within its boundaries. The District previously requested of California Quartet (the then-property owner) to undertake negotiations relative to entering into new improvement agreements relative to the Property. No response to those entreaties has been received by the District.

Water Distribution Facilities

As referenced above, the District has undertaken construction and completion of various master plan facilities in order to provide adequate water and water capacity to the Property. As noted, the District's Capital Improvement Charges were previously paid and satisfied in the identified amount. District master plan facilities have been sized based on the Property including 705 residential units. However, the District would note that it has not been provided with current

improvement plans and therefore cannot state, at this time, that all necessary water capacity for non-residential and irrigation needs is available. A re-evaluation of the Project, from an engineering perspective, by the District would be appropriate before definitive plans are finalized.

As also noted above, the Improvement Agreements relative to both master plan and in-tract water distribution facilities, including, but not limited, the water booster station identified in the DEIR, have lapsed and security for those agreements was rejected by action of the bankruptcy court. The specific facilities necessary in order to provide water transportation and distribution service within the boundaries of the Property were identified in those two (2) Improvement Agreements and are specifically enumerated in the improvement plans which were filed with the District and in the cost breakdowns which are included as part of the master plan agreement exhibits. Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the water transportation and distribution facilities necessary in order to provide water service to the Property are designed, constructed, installed, funded and dedicated to the District as required under the District's Rules and Regulations and the previous improvement plans, the District will not be able to undertake to provide water service to the Property. The inability of the District to provide water transportation and distribution within the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated. Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to water transportation and distribution facilities, the following mitigation measures be added to the DEIR:

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreement(s) with the District to provide for the design, construction, installation, funding and dedication of all necessary master plan and in-tract water transportation and distribution facilities (Specifically including, but not limited to, a water booster station) as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692; and

2. Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed, at its cost and expense, all design, construction, installation, funding and dedication of master plan and in-tract water transportation and distribution facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692.

Water Storage Facilities

The comments with regard to water distribution facilities, above, are generally applicable relative to water storage facilities in the context of the District. Water storage facilities are important

for the reasons of reserve water capacity, cost efficiency, fire fighting, emergency supply and system balancing.

Pursuant to determinations by the District's Board of Director, and the Rules and Regulations of the District, developers of property within the District's boundaries are required to either build and dedicate water storage facilities according the District's Rules and Regulations and standard specifications in order to provide stated levels of water storage capacity for the respective development or required to pay In-Lieu Water Storage Capacity Fees. Under the previous Improvement Agreements it was anticipated that the developer (the applicant) would in fact be building and dedicating water storage facilities to the District rather than pay the District's In-Lieu Water Storage Fee(s). It appears, based upon the description in the DEIR, that this is still intended.

On Page 3-9 of the DEIR it is indicated that the water storage tank will be constructed by the District. This is fact not the case. The prior Improvement Agreements and the District's Rules and Regulations, specify that master plan and in-tract facilities (including water storage facilities) which are to be constructed in order to service new development within the District are required to be constructed at the cost and expense of the applicant and in accordance with specified construction requirements, including, but not limited to, the District's standard specifications.

As also noted above, the Improvement Agreements relative to both master plan and in-tract water storage facilities, including, but not limited, the water reservoir identified in the DEIR, have lapsed and security for those agreements was rejected by operation of the bankruptcy court. The specific facilities necessary in order to provide water service within the boundaries of the Property were identified in those two (2) Improvement Agreements and are specifically enumerated in the improvement plans which were filed with the District and in the cost breakdowns which are included as part of the master plan agreement exhibits. Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the water storage facilities necessary in order to provide water service to the Property are designed, constructed, installed, funded and dedicated to the District as required under the District's Rules and Regulations and the previous Improvement Plans, the District will not be able to undertake to provide water service to the Property. The inability of the District to provide adequate water storage with regard to the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated. Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to water storage facilities, the following mitigation measures be added to the DEIR:

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreement(s) with the District to provide for the design, construction, installation, funding and dedication of all necessary master plan and in-tract water storage facilities or, alternatively, pay the District's In-Lieu Water Storage Fees, as

required under the District's Rules and Regulations and the tract map approval for Tract No. 10692; and

2. Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed, at its cost and expense, all design, construction, installation, funding and dedication of master plan and in-tract water storage facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692.

Wastewater (Sewer) Facilities

The comments relative to water distribution facilities, in the context of the Improvement Agreements, are generally applicable to wastewater (sewer) facilities relative to the District. The existence and operational readiness of wastewater collection, transportation and treatment facilities is necessary to satisfy health and safety requirements of occupancy of development in California.

As noted above, wastewater treatment capacity has been purchased in the SMWD Chiquita Waster Water Treatment Facilities. The major wastewater trunk sewer and downstream lift station facilities for the Property have been financed and constructed. However, certain in-tract and master plan wastewater collection and transportation facilities, identified in the Improvement Agreements, and in the improvement plans filed with the District, have not yet been constructed. In this regard, the District would reference the previously approved improvement plans and the exhibits to the Improvement Agreements.

As also noted above, the Improvement Agreements relative to both master plan and in-tract wastewater facilities have lapsed and security for those agreements was rejected by operation of the bankruptcy court. Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the wastewater facilities necessary in order to provide wastewater service to the Property are designed, constructed, installed, funded and dedicated to the District as required under the District's Rules and Regulations and the previous Improvement Plans, the District will not be able to undertake to provide wastewater service to the Property. The inability of the District to provide adequate wastewater service with regard to the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated. Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to wastewater facilities, the following mitigation measures be added to the DEIR:

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreement(s) with the District to provide for the design, construction,

installation, funding and dedication of all necessary master plan and in-tract wastewater facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692; and

2. Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed, at its cost and expense, all design, construction, installation, funding and dedication of master plan and in-tract wastewater facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692.

Financing of Water and Wastewater Facilities

Previously, the District undertook discussions with prior property owners relative to potentially providing financing for water and waste water facilities which needed to be constructed for the benefit of the Property. These financings were separate and apart from the assessment district financing referenced above. In this regard it was previously proposed to use financing under the Mello-Roos Community Facilities Act of 1982, as amended (the "Act"). However, previous developers did not pursue this means of financing. The District continues to be willing to discuss financing options relative to the water and wastewater facilities, but believes that the previous proceedings undertaken pursuant to the Act are most likely not viable for application to the current facilities at this time.

In regard to the Improvement Agreements the District notes that certain dollar figures of the construction of the facilities were provided in the exhibits and the referenced performance bonds. The District would note that nearly a decade has passed since these agreements were signed and as such, the cost to design, construct, install and dedicate the water and wastewater facilities, each as referenced above, is probably significantly increased from the figures previously used. Adequate financing for water and wastewater facilities should be secured in order to ensure that they will be designed, constructed, installed and dedicated to the District in a timely manner relative to the developmental process.

Master Plan Update

The District would note that it is currently in the process of reviewing its Master Plan of water and wastewater facilities. This may also have consequences for the District's overall financing master plan. The engineering review and evaluation of the District's Master Plan may result in some reevaluation of engineering presumptions and system requirements. At this time the District is still in the early stages of planning its Master Plan review and as such cannot provide definitive information as to any changes or reevaluations that may occur as a result of this process. However,

the District notes that this matter, inasmuch as, if the planning and development process for the Project is significantly delayed, additional information and figures may become available from the District.

Conclusion

In light of the foregoing, the District notes that the Project has the potential to impact the infrastructure facilities and systems of the District. Such mitigations are principally related to the availability of facilities, their construction, installation, dedication and acceptance prior to occupancy of any development on the property and related matters. Such potential impacts can be mitigated by way of the above suggested mitigation measures. Provided that such mitigation measures are undertaken the District has no objection to the Project. However, the District specifically notes that a failure to provide the above-requested mitigation measures could result in an adverse environmental impact(s) as a result of the Project. In such case, the District reserves its rights to protest the proceedings pursuant to Public Resources Code Section 21177 and to undertake all other legal remedies available to it.

The District specifically requests that the County of Orange, including the County Environmental and Project Management Services Department carefully review the above-referenced comments and that those comments be considered as part of the environmental process for the Project.

If you have any questions regarding this matter, please do not hesitate to contact our offices. We would be pleased to provide you with any additional information you may require.

Very truly yours,

BOWIE, ARNESON, KADI,
WILES & GIANNONE

By:
Robert E. Anslow

Enclosures

cc: Bruce Boner (w/o enclosures)

BAKW&G/REA/40015

This concludes the City of Mission Viejo comments on the Saddleback Meadows Project Draft Environmental Impact Report (DEIR 566). The City of Mission Viejo is also reviewing the June 1997 Draft EIR No. 565 for Live Oak Plaza Project. As a result of our technical review of the Draft EIR, the City may raise additional comments or request clarification on certain issues such as transportation and other areas where there may be inconsistencies in findings or analyses. Thank you for the opportunity to comment on the document. The City would like Response to Comments on the DEIR as soon as they are available.

Sincerely,

CITY OF MISSION VIEJO

Karen Steele Verlaan
Senior Planner

cc: Planning Commission
Assistant City Manager/Director of Public Works
Director of Community Development
Transportation Engineer
GSL Associates

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AGREEMENT FOR DESIGNING CONSTRUCTION OF
MASTER PLAN FACILITIES

Tract No. 10692

This Agreement, is dated this 21st day of September, 1988, by and between SO PAC PROPERTIES, INC., a Delaware corporation, hereinafter referred to as "Subdivider," and SANTA ANA MOUNTAINS COUNTY WATER DISTRICT, a county water district, formed and existing pursuant to Section 30000 et. seq. of the Water Code of the State of California, hereinafter referred to as "District":

R E C I T A L S:

WHEREAS, Subdivider is preparing a final map of Tract No. 10692 for acceptance and recordation by the County of Orange, and desires to obtain water and sewer services from the District for said Tract; and

WHEREAS, Subdivider is required by conditions of approval of the Tentative Map for Tract No. 10692 and by the Districts Rules and Regulations to provide the Master Plan water and sewer improvements for Tract No. 10692, as further described below (the "Master Plan Facilities"); and

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WHEREAS, District requires the design, construction and dedication of the Master Plan Facilities by Subdivider as a condition of providing water and sewer service to Tract No. 10692; and

WHEREAS, Subdivider wishes to record the final map of Tract No. 10692 prior to the installation of the required Master Plan Facilities; and

WHEREAS, Subdivider desires District to approve the final map for Tract No. 10692; and

WHEREAS, District has formed Community Facilities District No. 3 (Saddleback Meadows) of the Santa Ana Mountains County Water District ("CFD No. 3") for the purpose of financing public facilities, including the Master Plan Facilities, for Tract 10692; and

WHEREAS, District desires to ensure that the Master Plan Facilities are designed, constructed and installed in accordance with District's standards and specifications and rules and regulations; and

WHEREAS, Subdivider desires to enter into this Agreement in consideration of District's approval of the final map.

NOW, THEREFORE, in consideration of the mutual covenants made herein, it is hereby agreed by and between the parties hereto that:

1. Subdivider shall, at its sole cost and expense, design, construct and install within 730 consecutive calendar days of the date of this Agreement, all of the Master Plan Facilities

described and depicted in Exhibit "A", attached hereto and made a part hereof by this reference. The design of said Master Plan Facilities shall be in conformance with sound engineering practices and shall conform to District requirements and to all state and local requirements and to the District's Rules and Regulations. The design plan shall be subject to the review of the District Engineer.

2. The estimated cost of the Master Plan Facilities is set forward in Exhibit "A", attached hereto.

3. The Performance Bond, Tract No. 10692, Bond No. _____ to secure the faithful performance of this Agreement in the amount of Three Million One Hundred Ten Thousand Four Hundred Seventy-Eight Dollars ($3,110,478) is hereby approved.

4. Subdivider agrees to notify the District Engineer in writing at least 24 hours prior to the start of construction of the Master Plan Facilities.

5. (a) If the Subdivider has not completed the construction of the Master Plan Facilities within 730 consecutive calendar days after the date of this Agreement, the District has the right to call the security referenced in Section 3, hereof, for the faithful performance and to complete construction of the Master Plan Facilities. The security shall remain in effect until 365 days after the Master Plan Facilities have been completed and accepted by the District, subject to the provisions of Section 5(b), hereof. Upon completion of the Master Plan

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Facilities, and acceptance thereof by the District, Subdivider may, after written notice to the District, and receipt of confirmation by the District, reduce the security amount to 10% of that amount required in Section 3 hereof.

(b) Notwithstanding the provisions of Section 5(a) hereof, at such time as CFD No. 3 sells bonds, and the District receives proceeds of such bond sale, the Subdivider may request, in writing, that the District release the security required under Section 3, hereof, and the District shall confirm the release of said security within 15 days after receipt of such request.

6. Subdivider shall construct the Master Plan Facilities in accordance with plans approved by the District Engineer, the District's standard specifications, the District's Rules and Regulations, and under the District's inspection.

7. The Subdivider shall indemnify and hold harmless the District, its agents, and employees from and against all claims, damages, losses and expenses, including reasonable attorneys' fees, arising out of, or resulting from, the performance of the work of constructing the Master Plan Facilities, and caused in whole or in part by any negligent act or omission of the Subdivider, contractor, or any subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts any of them may be liable.

8. Subdivider hereby offers to dedicate the completed Master Plan Facilities to the District with all necessary easements and rights of way therefor.

9. (a) It is intended that CFD No. 3 will reimburse Subdivider for the actual amount of the design, construction and related costs of the Master Plan Facilities, listed on Exhibit "A", paid by Subdivider and approved by CFD No. 3, upon delivery of bonds and receipt of the proceeds thereof. Reimbursement from bond proceeds shall occur only to the extent that costs and fees have actually been paid and such payment has been substantiated to the satisfaction of CFD No. 3 and subject to Subdivider's compliance with the requirements of this Agreement with regard to design and construction of the Master Plan Facilities.

(b) Subdivider agrees to keep records of all costs and expenses incurred by Subdivider which may be subject to the reimbursement as provided for herein. The records shall be available for inspection by District representatives at the address listed in Section 19, hereof.

10. Upon completion of the construction in accordance with the approved plans and specifications and the dedication of the necessary easements, District agrees to accept the Master Plan Facilities, whereupon the Master Plan Facilities shall become property of the District.

11. Subdivider hereby guarantees the material and the workmanship of the Master Plan Facilities for a period ending 365 days after the acceptance of the Master Plan Facilities by District, and hereby agrees to reimburse District for all costs associated with the accomplishment of necessary repairs to the Master Plan Facilities which may have been made by the District

within the aforesaid guarantee period in the sole and absolute discretion of the District. In the event that a defect in materials and/or workmanship in the Master Plan Facilities is discovered within the above mentioned period, the District may provide notice to Subdivider requesting that the Subdivider promptly remedy such defect. Upon receipt of such notice, Subdivider shall promptly correct such defect, at its cost, at the earliest possible time. In the case of an emergency situation (where immediate action to repair or correct a defect is required), or at the District's option, the District may repair or correct such defect and thereafter bill Subdivider for the costs of repair or correcting such defect and Subdivider shall promptly reimburse the District for all such costs as provided for above.

12. Developer agrees to reimburse District, on a quarterly basis for the difference between the monthly service charges paid by the occupants of completed Development (including residences) in Tract 10692 receiving sewer service from the District and the actual operating and maintenance costs to the District arising from the provision of sewer capacity to Tract 10692 based on the Santa Margarita Water District Chiquita System operating and maintenance costs (the "Operating and Maintenance Shortfall"). The Santa Margarita Water District's 1988/1989 estimated annual budget for operation and maintenance of the Chiquita System, pro-rated for the 200,000 gallons per day (gpd) of wastewater

capacity owned by the District on behalf of Tract 10692, is $200,000. Developer agrees to reimburse District for the Operating and Maintenance Shortfall until:

(a) Buildout and occupancy of 600 EDU's of sewer capacity development on Tract 10692;

(b) District furnishes written notice to subdivider, pursuant to Section 19, hereof, that the monthly service charges from occupied development on Tract 10692 are such that the Operating and Maintenance Shortfall is eliminated; or

(c) Ten (10) years from the date of this Agreement.

13. Upon the execution of this Agreement and subject to the terms hereof by the parties hereto, the District agrees to give its approval of said Tract Map recording prior to the construction of the Master Plan Facilities.

14. If either party brings an action or proceeding against the other party by reason of default of any term or condition of this Agreement, or otherwise arising out of this Agreement, the prevailing party in such action or proceeding shall be entitled to recover as an element of its costs of suit, and not as damages, reasonable attorneys' fees, which shall be payable whether or not such action is prosecuted to judgment. The "prevailing party" shall be the party who is entitled to recover costs of suit, whether or not suit proceeds to final judgment, and shall include, without limitation, a party who dismisses an action for recovery hereunder in exchange for payment of the sums

allegedly due, performance of covenants allegedly breached, or consideration substantially equal to the relief sought in the action.

15. The parties hereby acknowledge that Subdivider may at a later time record a Tract Map for the property concerned herein, which Tract Map may be different from that Tract Map referenced in this Agreement and may include a different development density. If Subdivider determines to do so prior to the construction of the Master Plan Facilities, then Subdivider and District shall negotiate in good faith to determine the revisions necessary to the Master Plan Facilities and any amendments which are necessary to this Agreement and to the fees and charges imposed by the District under this Agreement. If necessary, the District shall provide for a refund or credit to Subdivider for any fees and charges paid by Subdivider which are in excess of the fees and charges required under the revised Tract Map and as a result of the above mentioned negotiations. If the revised Tract Map of Subdivider provides for greater density, then Subdivider shall pay all additionally required fees and charges as required under the District's Rules and Regulations.

16. Either party to this agreement may specifically and expressly waive, in writing, any portion of this agreement, or any breach thereof, but no such waiver shall constitute a further or continuing waiver of any preceding or succeeding of the same or any other provision. A waiving party may, at any time thereafter, require future compliance by the other party

hereto with any breach or provisions that are so waived. The consent of one party to any acts by the other party for which such written consent was required shall not be deemed to imply consent or waiver of the necessity of obtaining such consent for the same or any similar acts in the future. No waiver or consent shall be implied from silence or any failure of any party to act, except as otherwise specified in this agreement. All rights, remedies, undertakings, obligations, covenants, conditions and agreements contained in this agreement shall be cumulative and no one of them shall be exclusive of any other.

17. This Agreement may not be assigned without the prior written consent of the other party hereto. Such written consent shall not be unreasonably withheld.

18. Any notice, request, demand, consent, approval or other communication required or permitted hereunder by law, shall be validly given and made only if in writing and delivered in person to an officer or duly authorized representative of the party or deposited in the United States mail, first class postage prepaid and addressed to the party for whom intended as follows:

To District:	Santa Ana Mountains County Water District Attention: J. Fred Sims 30575 Trabuco Canyon Road Suite 104 Trabuco Canyon, CA 92678
To Subdivider:	Southmark Pacific Corporation Attention: Ms. Kelli Ryan 4685 MacArthur Court, Suite 450 Newport Beach, CA 92660

Any party may, from time to time, by written notice to the other party hereto, designate a different address which shall be substituted for that above. If any notice or other document is sent by mail as aforesaid, the same shall be deemed fully delivered and received 48 hours after mailing as provided above.

19. The parties hereby understand and agree that this agreement and the attachments hereto have been negotiated and executed in the State of California and shall governed by, and construed under, the laws of the State of California.

20. No addition to, or modification of, any provision contained in this agreement shall be effective unless fully set forth in writing signed by the authorized representative of both of the parties hereto.

21. The signatories hereto represent that they have been appropriately authorized to enter into this agreement on behalf of the party for whom they signed.

IN WITNESS THEREOF, the parties hereto have executed this Agreement on the dates set opposite their respective names.

SANTA ANA MOUNTAINS COUNTY WATER DISTRICT

Dated: Sept 21, 1988

By _____
President/Vice President of the Board of Directors

ATTEST:

_____
Assistant Secretary of the Board of Directors of the Santa Ana Mountains County Water District

Dated: Sept 21, 1988

"Subdivider"
SO PAC PROPERTIES, INC., a Delaware corporation

By _____
Title: Vice President

AGREEMENT FOR CONSTRUCTION OF
ONSITE WATER AND SEWER FACILITIES

Tract No. 10692

THIS AGREEMENT, dated this 21st day of September, 1988, is made by and between the SO PAC PROPERTIES, INC., a Delaware corporation, hereinafter called "Subdivider," and SANTA ANA MOUNTAINS COUNTY WATER DISTRICT, formed and existing pursuant to Section 30000 et. seq. of the Water Code of the State of California hereinafter called "District":

W I T N E S S E T H:

WHEREAS, Subdivider is preparing a final map of Tract No. 10692 for acceptance and recordation by the County of Orange, and desires to obtain water and sewer services from the District for said Tract; and

WHEREAS, Subdivider is required by conditions of approval of the Tentative Map for Tract No. 10692 to provide water and sewer improvements for Tract No. 10692; and

WHEREAS, District requires the construction and dedication of water and sewer facilities by Subdivider as a condition of providing water and sewer service to Tract No. 10692; and

WHEREAS, Subdivider wishes to record the final map of Tract No. 10692 prior to the installation of the required water and sewer facilities; and

INITIAL HERE

WHEREAS, Subdivider desires District to approve the final map for Tract No. 10692; and

WHEREAS, Subdivider has prepared and submitted to District a set of improvement plans for said facilities; and

WHEREAS, District desires to ensure that the said facilities are installed in accordance with District's standards and specifications; and

WHEREAS, Subdivider desires to enter into this Agreement in consideration of District's approval of said final map.

NOW, THEREFORE, it is hereby agreed by and between the Subdivider and District that:

1. Subdivider shall, at its sole cost and expense, construct and install within 730 consecutive calendar days of the date of this Agreement, all of the facilities shown and delineated upon the construction plans entitled "Improvement Plans, Tract No. 10692" (the "Facilities") as approved by the District Engineer and the County of Orange and on file with said County and by reference made a part of this Agreement as though fully set forth herein.

2. The cost of the Facilities is estimated to be Four Hundred Fifty-Seven Thousand Three Hundred Ninety-Four Dollars ($457,394).

3. The Subdivision Improvement Bond, Tract No. 10692, Bond No. _____ to secure the faithful performance of this Agreement in the amount of Four Hundred Fifty-Seven Thousand Three Hundred Ninety-Four Dollars Dollars ($457,394) is hereby approved.

4. Subdivider agrees to notify the District Engineer in writing at least 24 hours prior to the start of construction of the Facilities.

5. If the Subdivider has not completed construction of the Facilities within 730 consecutive calendar days after the date of this Agreement, the District has the right to call the security for faithful performance and complete construction of the Facilities. The security shall remain in effect until 365 days after the Facilities have been completed and accepted by the District. Upon completion of the Facilities, and acceptance thereof by the District, Subdivider, after written notice to, and approval from, the District, may reduce the security amount to 10% of that amount required in Section 3 hereof.

6. Subdivider shall construct the Facilities in accordance with the approved plans, the District's standard specifications and under District's inspection, and shall indemnify and hold harmless the District, its agents, and employees from and against all claims, damages, losses and expenses, including reasonable attorneys' fees arising out of or resulting from the performance of the work of constructing the Facilities, and caused in whole or in part by any negligent act or omission of the Subdivider,

Contractor, or any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable.

7. Subdivider hereby offers to dedicate the Facilities to the District together with necessary easements.

8. Upon completion of the construction in accordance with the plans and specifications and the dedication of the necessary easements, District agrees to accept the Facilities, whereupon the Facilities shall become property of the District.

9. Subdivider hereby guarantees the material and the workmanship of the Facilities for a period ending 365 days after the acceptance of the Facilities by District, and hereby agrees to reimburse District for all costs associated with the accomplishment of necessary repairs to the Facilities which may have been made by the District within the aforesaid guarantee period in the sole and absolute discretion of the District. In the event that a defect in materials and/or workmanship in the Facilities is discovered within the above mentioned period, the District may provide notice to Subdivider requesting that the Subdivider promptly remedy such defect. Upon receipt of such notice, Subdivider shall promptly correct such defect, at its cost, at the earliest possible time. In the case of an emergency situation (where immediate action to repair or correct a defect is required), or at the District's option, the District may repair or correct such defect and thereafter bill Subdivider for

the costs of repair or correcting such defect and Subdivider shall promptly reimburse the District for all such costs as provided for above.

10. Upon the execution of this Agreement and subject to the terms hereof by the parties hereto, the District agrees to give its approval of said Tract Map recording prior to the construction of the Facilities.

11. Prior to approval of the map for Tract No. 10692, Subdivider shall pay to District the following sums:

(1) For the costs of the District's plan review, inspection of construction and the control thereof, and for the testing of materials, the sum of $29,731, which sum shall be based upon the estimated construction cost of $457,394.

(2) A capital improvement charge in the sum of $904,475.

12. In the event District determines that land other than that within Tract No. 10692 can be served by means of the Facilities, at such time as District utilizes any capacity in the Facilities to provide water and/or sewer service to such other land, District shall determine and collect from the owners of said land a proportionate share of the cost of the design and construction of the Facilities plus interest at the maximum rate provided by law unless otherwise determined by District and District shall reimburse such amounts to Subdivider. Such reimbursement shall be made to Subdivider, and shall not be made

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to another party, or subsequent landowner(s) without the direction of Subdivider in writing. Other than as hereinabove provided the Facilities shall be used only to provide service to Tract 10692. Such amounts as hereinabove provided shall be in addition to all other fees and charges of District.

13. If either party brings an action or proceeding against the other party by reason of default of any term or condition of this Agreement, or otherwise arising out of this Agreement, the prevailing party in such action or proceeding shall be entitled to recover as an element of its costs of suit, and not as damages, reasonable attorneys' fees, which shall be payable whether or not such action is prosecuted to judgment. The "prevailing party" shall be the party who is entitled to recover costs of suit, whether or not suit proceeds to final judgment, and shall include, without limitation, a party who dismisses an action for recovery hereunder in exchange for payment of the sums allegedly due, performance of covenants allegedly breached, or consideration substantially equal to the relief sought in the action.

14. The parties hereby acknowledge that Subdivider may at a later time record Tract Map for the property concerned herein, which Tract Map may be different from that Tract Map referenced in this Agreement and may include a different development density. If Subdivider determines to do so prior to the construction of the Facilities, then Subdivider and District shall negotiate in good faith to determine the revisions

necessary to the Facilities and any amendments which are necessary to this Agreement and to the fees and charges imposed by the District under this Agreement. If necessary, the District shall provide for a refund or credit to Subdivider for any fees and charges paid by Subdivider which are in excess of the fees and charges required under the revised Tract Map and as a result of the above mentioned negotiations. If the revised Tract Map of Subdivider provides for greater density, then Subdivider shall pay all additionally required fees and charges as required under the District's Rules and Regulations.

15. Either party to this agreement may specifically and expressly waive, in writing, any portion of this agreement, or any breach thereof, but no such waiver shall constitute a further or continuing waiver of any preceding or succeeding of the same or any other provision. A waiving party may, at any time thereafter, require future compliance by the other party hereto with any breach or provisions that are so waived. The consent of one party to any acts by the other party for which such written consent was required shall not be deemed to imply consent or waiver of the necessity of obtaining such consent for the same or any similar acts in the future. No waiver or consent shall be implied from silence or any failure of any party to act, except as otherwise specified in this agreement. All rights, remedies, undertakings, obligations, covenants, conditions and agreements contained in this agreement shall be cumulative and no one of them shall be exclusive of any other.

16. This agreement may not be assigned without the prior written consent of the other party hereto. Such written consent shall not be unreasonably withheld.

17. Any notice, request, demand, consent, approval or other communication required or permitted hereunder by law, shall be validly given and made only if in writing and delivered in person to an officer or duly authorized representative of the party or deposited in the United States mail, first class postage prepaid and addressed to the party for whom intended as follows:

To District:
Santa Ana Mountains County Water District
Attention: J. Fred Sims
30575 Trabuco Canyon Road
Suite 104
Trabuco Canyon, CA 92678

To Developer:
So Pac Properties, Inc.
Attention: Ms. Kelli Ryan
4685 MacArthur Court, Suite 450
Newport Beach, CA 92660

Any party may, from time to time, by written notice to the other party hereto, designate a different address which shall be substituted for that above. If any notice or other document is sent by mail as aforesaid, the same shall be deemed fully delivered and received 48 hours after mailing as provided above.

18. The parties hereby understand and agree that this agreement and the attachments hereto have been negotiated and executed in the State of California and shall governed by, and construed under, the laws of the State of California.

INITIAL HERE

19. No addition to, or modification of, any provision contained in this agreement shall be effective unless fully set forth in writing signed by the authorized representative of both of the parties hereto.

20. The signatories hereto represent that they have been appropriately authorized to enter into this agreement on behalf of the party for whom they signed.

IN WITNESS THEREOF, the parties hereto have executed this Agreement on the dates set opposite their respective names.

SANTA ANA MOUNTAINS COUNTY WATER DISTRICT

Dated: Sept 21, 1988

By _____
President/Vice President of the Board of Directors

ATTEST:

_____
Assistant Secretary of the Board of Directors of the Santa Ana Mountains County Water District

Dated: Sept. 21, 1988

SO PAC PROPERTIES, INC., a Delaware corporation

By _____
Title: Vice president

Va Dell and Associates, Inc.
CIVIL ENGINEERS
SURVEYORS LAND PLANNERS

☐ 17601 Cartwright Road Irvine, CA. 92714 (714) 474-1400
☐ 1003 E. Cooley Dr., #111 Colton, CA. 92324 (714) 370-3460
☐ 10225 Barnes Canyon Rd., A 106 San Diego, CA. 92121 (619) 587-9885

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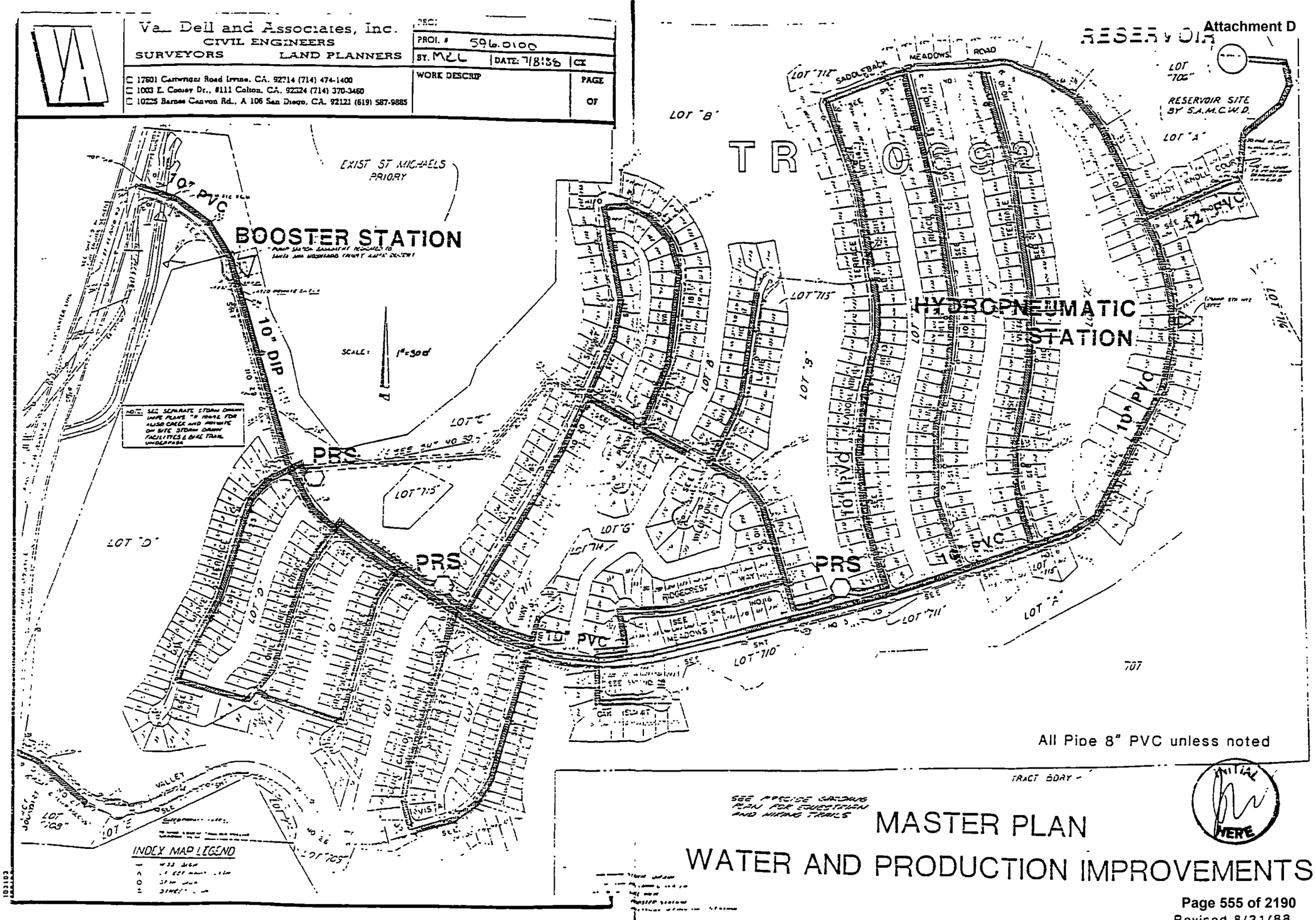

All Pipe 8" PVC unless noted

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MASTER PLAN
WATER AND PRODUCTION IMPROVEMENTS

CIVIL ENGINEERS
SURVEYORS LAND PLANNERS
17801 Cartwright Road Irvine, CA. 92714 (714) 474-1400
1003 E. Cooley Dr., #111 Colton, CA. 92324 (714) 370-3460
10225 Barnes Canyon Rd., A 106 San Diego, CA. 92121 (619) 587-9885

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PAGE OF

TRACT 6087

EXIST ST MICHAELS PRIORY

LOT "A" RESERVOIR SITE BY SAMCWD

LOT "B"

LOT "C"

LOT "D"

LOT "E"

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LOT "109"

LOT "110"

LOT "111"

LOT "112"

LOT "113"

LOT "114"

LOT "115"

LOT "116"

MEADOWS ROAD

SADDLEBACK

TERRACE

PLACE

WAY

CLIFTON

VALLEY

SCALE: 1"=300'

NOTE: SEE SEPARATE STORM DRAIN IMPROVEMENT PLANS TO ISSUE FOR MISSION CREEK AND PRIVATE ON SITE STORM DRAIN FACILITIES & BIKE TRAIL UNDERPASS

SEE PRECISE GRADING PLAN FOR STREETSCAPE AND MAINTENANCE TRAILS

INDEX MAP LEGEND

All pipe 8" VCP

INITIAL HERE

MASTER PLAN SEWER IMPROVEMENTS

Revised 8/31/88

"EXHIBIT A"

SANTA ANA MOUNTAINS COUNTY WATER DISTRICT

TRACT 10692 - MASTER PLAN FACILITIES

COST ESTIMATE

Master Plan Water Distribution

12" PVC	400	Lin. Ft.	@	$ 23.00	$ 9,200
10" PVC	3,090	Lin. Ft.	@	18.00	55,620
10" PVC, Cl.200	1,412	Lin. Ft.	@	25.00	35,300
10" DIP	947	Lin. Ft.	@	25.00	33,145
8" PVC	17,662	Lin. Ft.	@	16.00	282,592
Bore and Jack	100	Lin. Ft.	@	200.00	20,000
12" GV	2	Ea.	@	1,000.00	2,000
10" GV	14	Ea.	@	800.00	11,200
8" GV	45	Ea.	@	625.00	28,125
Hot Tap w/Valve	2	Ea.	@	3,400.00	6,800
1" Air	2	Ea.	@	750.00	1,500
2" B.O.	12	Ea.	@	620.00	7,440
6" Fire Hydrant	60	Ea.	@	1,700.00	102,000
			TOTAL		$594,922
			BOND AMOUNT		$594,922

Master Plan Water Production Facilities

12" PVC	600	Lin. Ft.	@	$ 23.00	$ 13,800
12" GV	1	Ea.	@	1,000.00	1,000
Pump Station & Housing	120	HP	@	2,500.00	300,000
Reservoir	1.2	MG	@	666,666.66	800,000
Pressure Reducing Station	3	Ea.	@	20,000.00	60,000
Hydropneumatic Station	1	Ea.	@	60,000.00	60,000
			TOTAL		$1,234,800
			BOND AMOUNT		$1,234,800
			Subtotal Water		$1,829,722

Master Plan Sewer Collection:

8" VCP	22,820	Lin. Ft.	@	$ 15.00	$342,300
8" VCP in Easement	1,200	Lin. Ft.	@	21.00	25,200
Bore and Jack	100	Lin. Ft.	@	200.00	20,000
48" Sewer Manhole	85	Ea.	@	1,300.00	110,000
Encase Sewer	56	Lin. Ft.	@	30.00	1,680
Remodel Ex. MH	1	Ea.	@	1,000.00	1,000
			TOTAL		$500,680
			BOND TOTAL		$500,680

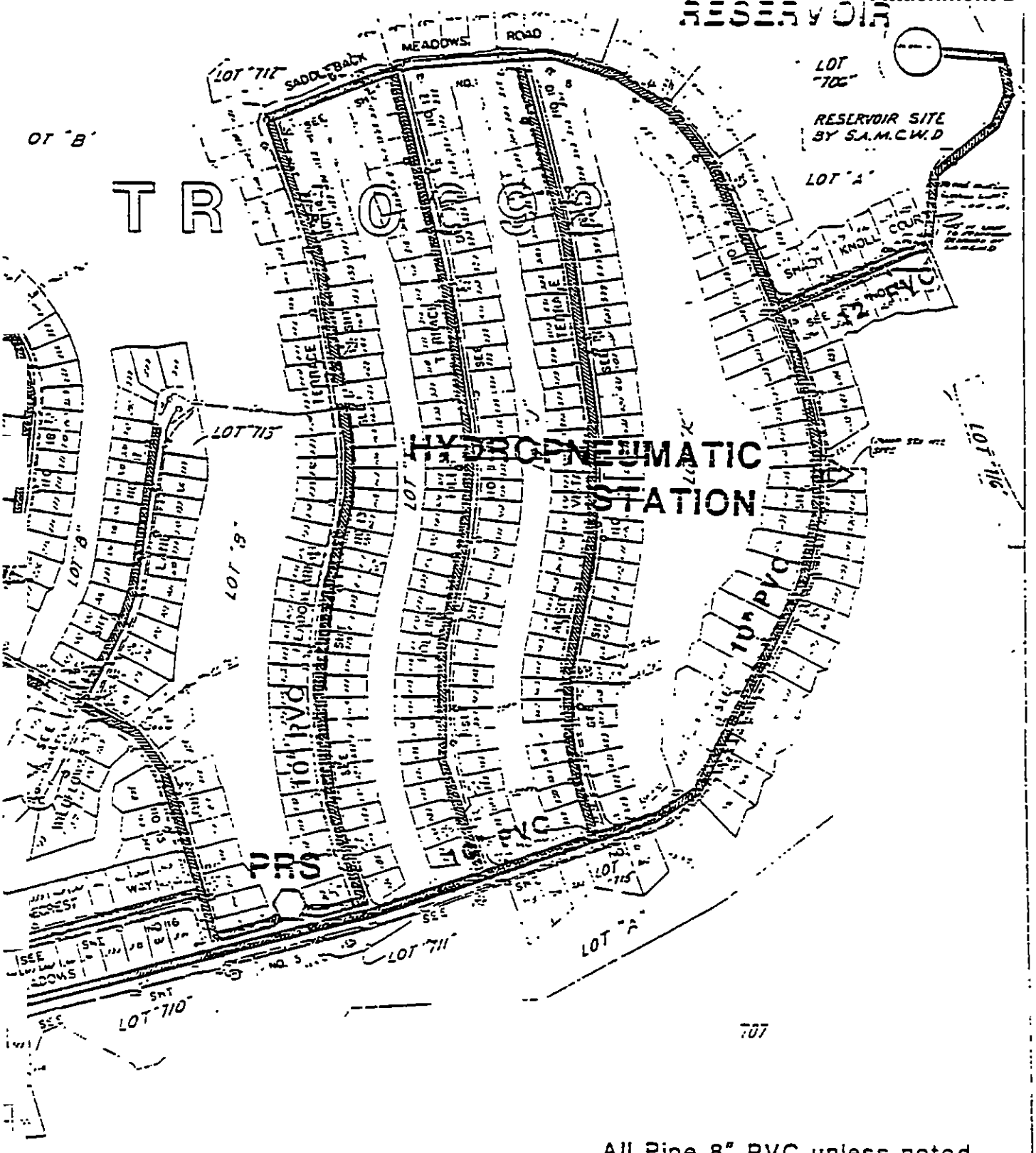
Sewer Transmission

Additional A.D. No. 5	
Pro-Rata Capacity Buy-in	$34,000
Wastewater Equipment Pro-Rata Buy-in	12,000
TOTAL	$46,000
BOND AMOUNT	$46,000
SUBTOTAL SEWER	$ 546,680
TOTAL WATER & SEWER	$2,376,402

Incidental Expenses:*

Contingencies, Design and Contract Administration (25%)	$582,600
Plan Check and Inspection (6 1/2%)	151,476
Subtotal Incidentals	$734,076
TOTAL FUNDING	$3,110,478

* Incidentals Not Applied to Sewer Transmission



All Pipe 8" PVC unless noted

TRACT 5089

SEE PRECISE GRADING PLAN FOR EQUESTRIAN AND HIKING TRAILS.

INITIAL HERE

MASTER PLAN

WATER AND PRODUCTION IMPROVEMENTS

Va Dell and Associates, Inc.
CIVIL ENGINEERS
SURVEYORS LAND PLANNERS

17801 Cartwright Road Irvine, CA. 92714 (714) 474-1400
1003 E. Cooley Dr., #111 Colton, CA. 92324 (714) 370-3460
10225 Barnes Canyon Rd., A 106 San Diego, CA. 92121 (619) 587-9385

PROJ. Attachment D
PROJ. # 596.0100
BY: MCL DATE: 7/8/88 CK
WORK DESCRIP.
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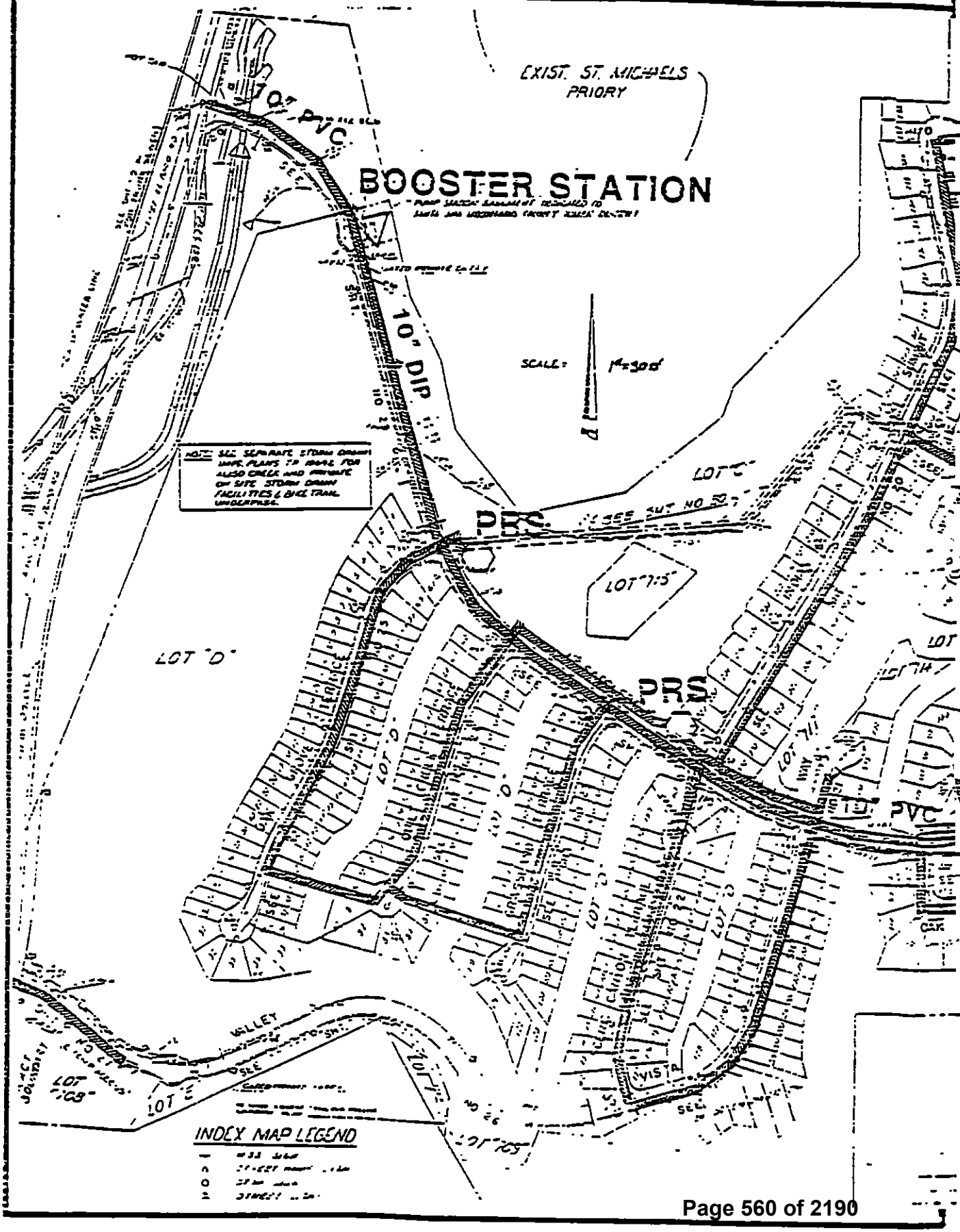

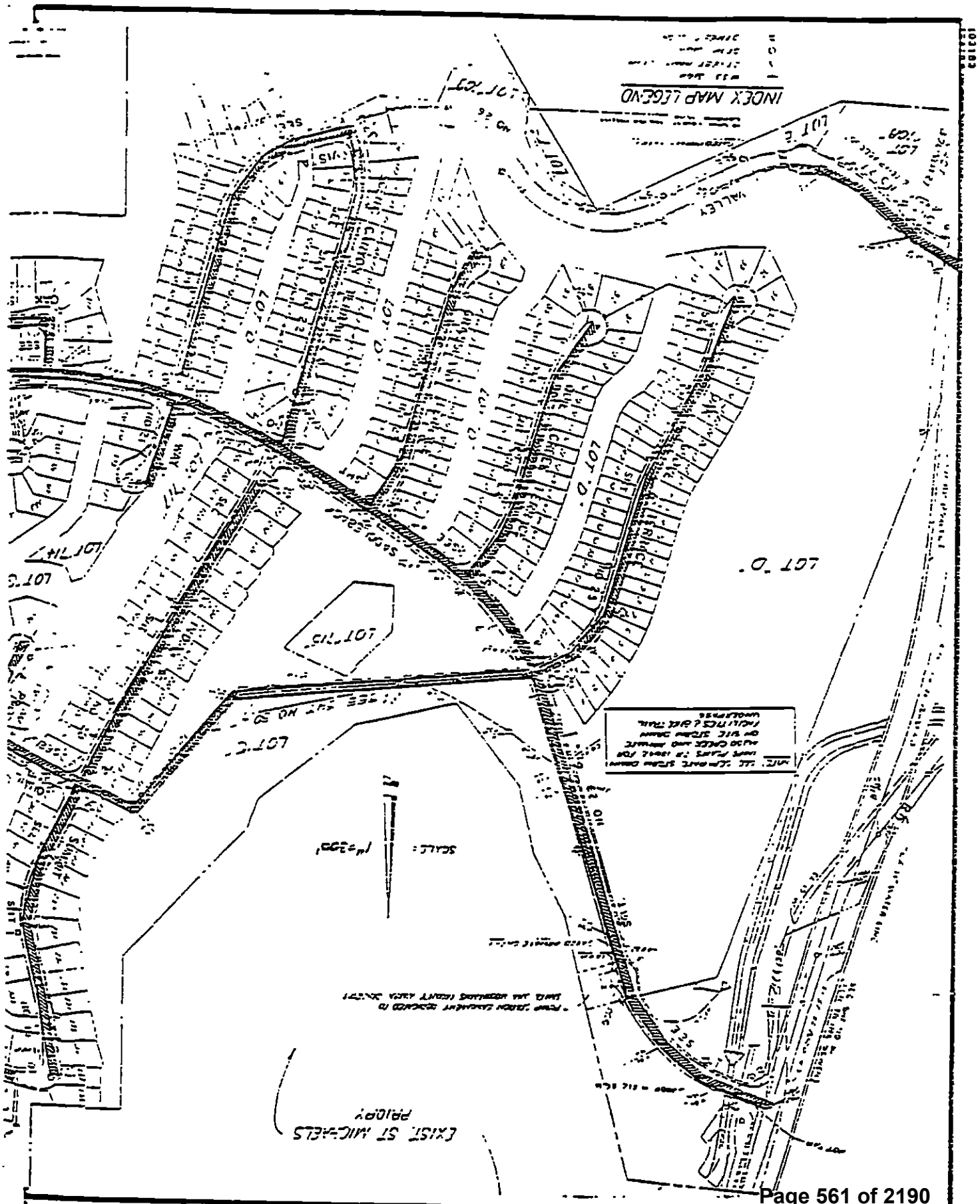
INDEX MAP LEGEND
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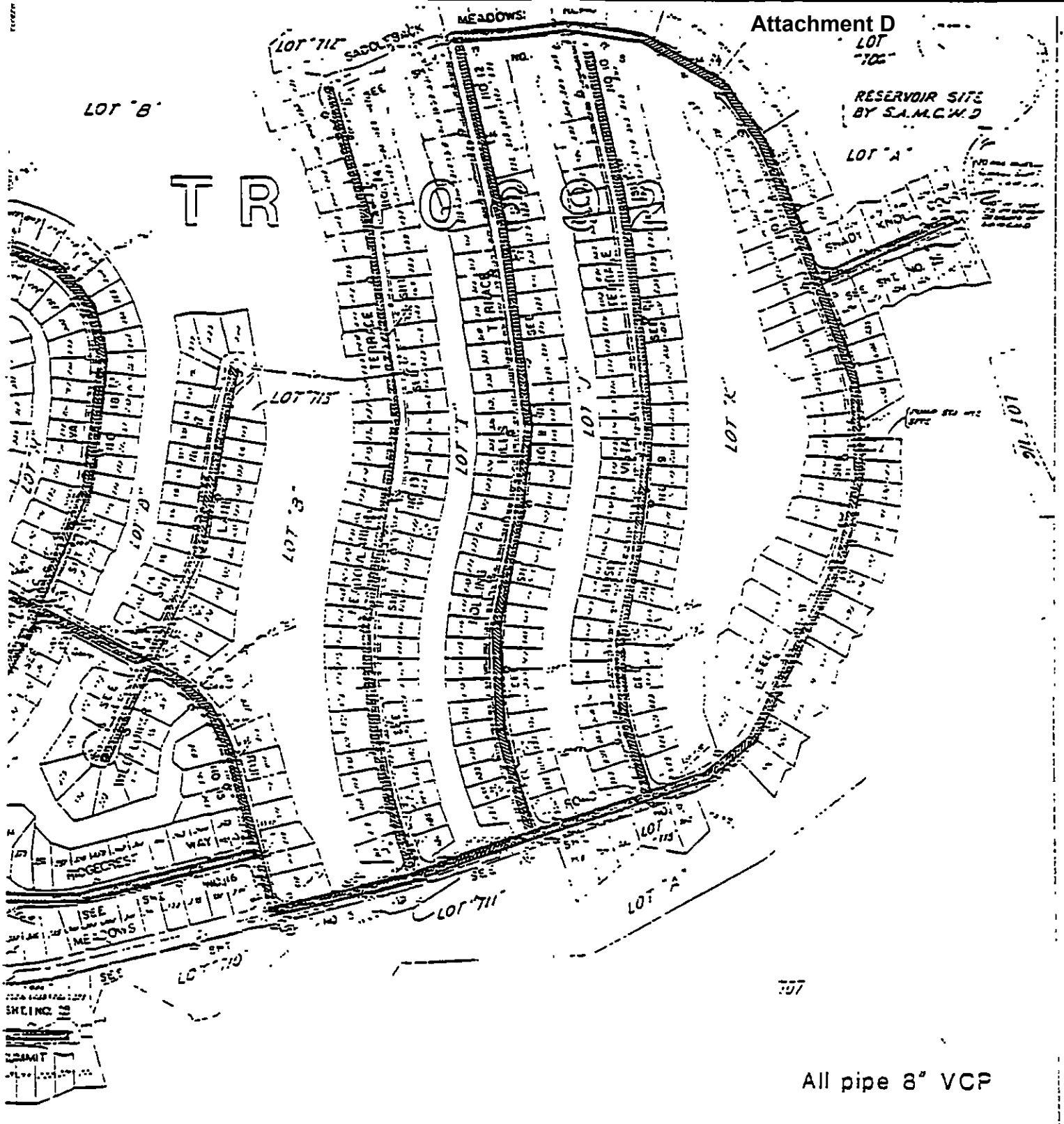
EXIST. ST MICHAELS PRIORY
SCALE: 1"=250'



SEE PRECISE GRADING PLAN FOR SUBDIVISION AND HIKING TRAILS.

INITIAL HERE

MASTER PLAN SEWER IMPROVEMENTS

Revised 9/31/88

OCTA

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ory T Winterbottom
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August 11, 1997

George Britton
Environmental and Project Planning Services
County of Orange
P.O. Box 4048
Santa Ana, CA 92702-4048

Dear Mr. Britton:

The Orange County Transportation Authority (OCTA) has reviewed the Saddleback Meadows Recorded Tract Map 10692, Grading Application GA960048. OCTA has no comments at this time.

We appreciate the opportunity to provide input on this project. If you have further questions or need additional information, please call me at 714/560-5786.

Sincerely,

Ben Jarvis
Associate Transportation Analyst

Attachment D

August 11, 1997

Planning and Development Services Department
300 N. Flower St. #321
Santa Ana, CA 92702

RE: Saddleback Meadows Project

To Whom It May Concern:

I am submitting this letter to comment on the proposed 705 unit mobile home park on the Saddleback Meadows stie. Not long ago approval was being sought for 318 houses on this site. Why it was not passed I don't understand. Now we are having to deal with the thought of an extremely large number of mobile homes in our very secluded and tranquil area. I was in favor of the 318 homes and even toured the site when they opened it to the public last year to show what they were proposing. Believe me my first choice would be to leave it untouched and unbuilt so we could continue to view the beautiful hillside of our rural area. But if something must be built lets have it be fewer homes with a much more aesthetic appearance that fits into the already existing areas surrounding it. Also, my concern is if 705 units are brought on-site where are all these children going to go to school? Portola Hills Elementary is already at full capacity and measures have had to be taken to accommodate its student load.

I will be following the developments and can only pray that the Planning and Development Service Department along with the County Supervisors will make fair and knowledgeable decisions regarding this 222-acre rural canyon site.

Sincerely

Kimberly A. Stocking

Kimberly A. Stocking
26 Yellowpine Lane
Trabuco Canyon, CA 92679
(714) 589-1124

TPG Management, Inc.
1601 Dove Street, #105
Newport Beach, CA 92660
714-253-9595 Telephone
714-955-1170 Facsimile

Via Fax & US Mail

August 12, 1997

Mr. Raymond H. C. Brantley
Orange County Planning and Development
Services Department
Environmental & Project Planning Services Division
300 North Flower, Room 321
P. O. Box 4048
Santa Ana, CA 92702-4048

Re: Comments on Draft Subsequent Environmental Impact Report No. 566; Saddleback Meadows Recorded Tract Map 10692; Grading Application GA960048; State Clearinghouse No. 96121072

Dear Mr. Brantley:

On behalf of the project applicant, California Quartet, Ltd., we submit the following comments on Draft Subsequent Environmental Impact Report No. 566, Saddleback Meadows Recorded Tract Map 10692, Grading Application GA960048, prepared by Urban Vision for the Orange County Planning & Development Services Department.

Our review of Subsequent EIR 566 reveals that the project description should be supplemented to better satisfy provisions of the California Environmental Quality Act[1]. We find it deficient in at least two respects: (1) it fails to discuss economic characteristics and supporting public service facilities relating to the project site; and, (2) it fails to reference the County Board of Supervisors recent (October 1996) failure and/or refusal to approve a reduced density project alternative in lieu of Recorded Tract Map 10692.

Please note that CEQA Guidelines section 15124 provides that a project description "shall contain" "[a] general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities."[2]

We consider Subsequent EIR 566 to be deficient because the project description on pages 3-1 through 3-2 fails to discuss certain significant economic characteristics of Tract Map

[1] Public Resources Code section 21000 *et seq* ("CEQA") and the CEQA Guidelines issued by Resources Agency and located in the California Code of Regulations, sections 1500 *et seq*.

[2] California case law holds that "[a]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR."

10692; and does not consider the supporting public service facilities for the project site paid for by California Quartet or its predecessors-in-interest. These economic characteristics and involved supporting public service facilities are discussed below.[3]

When Tract Map 10692 was recorded in December of 1988, several contractual commitments were entered into by the predecessors-in-interest of California Quartet. These contractual commitments resulted in monies being expended for the construction of capital facilities, including a sewer treatment facility and related trunk lines that serve both Saddleback Meadows and its general vicinity.

One of the conditions of approval for Tentative Tract Map 10692 (Special Condition No. 22.), was that "[p]rior to recordation of each final map ... sewage treatment and disposal facilities will be available to serve all dwelling units. To facilitate this requirement, several subdivision improvement agreements were entered into prior to the recordation of the Final Map.

The two subdivision improvement agreements relating to Master Plan Facilities and Onsite Water and Sewer Facilities for Tract Map 10692 were entered into between the Santa Ana Mountains County Water District, now known as the "Trabuco Canyon Water District" (the "District"), and Southmark Pacific Corporation ("Southmark"), a predecessor-in-interest to California Quartet. One of these agreements executed on September 21, 1988 between Southmark and the District is entitled "Agreement for Designing Construction of Master Plan Facilities, Tract No. 10692" ("MPFA"). The "RECITALS" portion of that agreement, mandated by conditions of the Tentative Tract Map and by the District's rules and regulations, required Master Plan Water and Sewer Improvements for the Property prior to providing water and sewer service. The second subdivision agreement, entitled "Agreement for Construction of Onsite Water and Sewer Facilities, Tract No. 10692" ["Onsite Water and Sewer Facilities Agreement" ("OWSFA")], also executed on September 21, 1988 between Southmark and the District, required the construction and dedication of water and sewer facilities by the subdivider prior to the District's agreement to provide water and sewer service to the final tract. Tract Map 10692 provided a zoning capacity density of 715 equivalent dwelling units ("EDUs").

In February 1989, California Quartet's predecessor-in-interest paid $973,528.58 for the purchase of sewer treatment capacity rights for the project site in the District's Chiquita Wastewater System Facilities (the "Chiquita Facilities"). These funds were used by the District to enlarge the Chiquita Facilities to accommodate the 715 EDUs zoned for the property. Thus, California Quartet, as a successor-in-interest, succeeded to all rights and liabilities flowing from the Tentative Tract conditions and subsequent above-described

[3] An October 21, 1996 correspondence to the Orange County Board of Supervisors from California Quartet concerning the October 22, public hearing for Agenda Item No. 79, FEIR No. 561, Zone Change Case No. 95-5 and Area Plan Case No. 95-7 previously detailed the recorded tract map requirement of payment for and installation of Area capital facilities on the project site by California Quartet and/or its predecessors-in-interest.

agreements for the purchase of sewer treatment capacity in the Chiquita Facilities for the benefit of the authorized development density of the property.

Additionally, California Quartet's predecessor-in-interest was required to pay the District's Capital Improvement Charges ("CICs"). The District's CICs in effect then were $1,265.00 for each equivalent dwelling unit. The CICs for 715 dwelling units totaled $904,475.00. The District's CICs were, and are, imposed on all development within the District in accordance with the District's Master Plan, including the Water and Wastewater Master Plan, the Financial Plan and the District's Impact Fee Structure. The CICs that were paid were deposited in the District's fund and earmarked for capital improvement of water facilities, which have subsequently been constructed.

It should also be noted that California Quartet is required to pay an annual sewer /water assessment on each of Saddleback Meadows 705 legal lots. This assessment appears on individual property tax bills and totals $60,000 to $75,000 per year for the entire property. California Quartet has been making these assessment payments and paying its tax liability since the 1994-1995 tax year and has not been delinquent on any of these payments. In addition, California Quartet has paid (May 1997) all back taxes, assessments and penalties owed by its predecessor-in-interest(approximately $\pm$$1,025,000). Further, California Quartet's predecessor-in-interest made good faith payments for premiums on security and improvement bonds(with a face amount over $9,147,700[4]) for improvements on the Property, in reliance on, and as a condition of the Tract Map 10692.

In sum, the project description should be supplemented as it presently fails to disclose that California Quartet, as a consequence of Tract Map 10692 approval, made substantial expenditures for water and sewage capacity and construction of capital facilities, and entered into contractual obligations to develop the property consistent with the authorized density of Tract Map 10692.

Further, the County Board of Supervisors at the public hearing on October 22, 1996 on Zone Change Case No.95-5 and Area Plan Case No. 95-7 failed to approve any of the project alternatives discussed in proposed FEIR No. 561, including Alternative No. 4, the 100 unit alternative. The project description also is inadequate because it fails to disclose

---

[4] One of California Quartet's predecessors-in-interest, Saddleback Ventures I, entered into a public improvement agreement with the County of Orange designated as Agreement No. 5988-1748. This agreement required three faithful performance/labor and materials bonds that are still in effect in the following amounts:

(1) Bond No 112 70 80 issued by the developer's insurance company in the amount of $5,657,700, for private and public street improvements, street lighting, street drains and traffic signals;
(2) Bond No. 112 70 79 issued by the developer's insurance company in the amount of $3,240,000 for landscaping; and,
(3) Bond No. 112 70 78 issued by the developer's insurance company in the amount of 250,000 for monumentation.

this action, which indicates that the Board did not approve any of the nine reduced density alternatives to Tract Map 10692 that were analyzed in FEIR 561.

Based on the above, to remedy deficiencies in the project description, subsequent EIR 566 must be revised and supplemented with more detail concerning the economic characteristics of, and public service facilities for, Tract Map 10692 and the Board's decision to reject all reduced density alternatives in lieu of Recorded Tract Map 10692.

Very truly yours,

H. Pike Oliver
TPC Management, Inc.

CC: Mike McKnight
William D. Ross, Esq.

DOC: Network-Presidio-Saddleback-"Letter to RBrantleyAUG1197"

Wayne L. Brown
19252 Sleeping Oak
Trabuco Canyon, Ca. 92679

Manager,
OCPDS/Environmental & Project Planning Services Division
300 N. Flower St.
Santa Ana, Ca. 92702-4048

This project was a bad idea when it was originally corruptly approved, it has only become more evident over time what a poorly conceived project it is. Please consider the animal corridor rather than the pocket book of the proposed builder. After all the builder knew the history of the property when they bought it at "fire sale" prices. They knew about the specific plan that now protects the area from ill conceived plans. If the proposed builder did not know these things, then all the more reason to deny approval to such poor business people who would not have the foresight to research the property.

Wayne Brown

Attachment D

Amber Graves
19252 Sleeping Oak
Trabuco Canyon, Ca. 92679

Manager,
OCPDS/Environmental & Project Planning Services Division
300 N. Flower St.
Santa Ana, Ca. 92702-4048

I know this project was approved long before the specific plan came into existence, but because of the way it was originally approved I think it should be looked at like it were being submitted for the first time. This project does not fit in with the area, it leaves no way for the animals to migrate and will be built on ground that will easily slide even after removing tons and tons of dirt. Please deny this builders request.

thank you

Amber Graves

Amber Graves

RECEIVED TIME AUG.12. 9:03PM PRINT TIME AUG.12. 9:06PM

Debra Moddelmog
19252 Sleeping Oak
Trabuco Canyon, Ca. 92679

Manager,
OCPDS/Environmental & Project Planning Services Division
300 N. Flower St.
Santa Ana, Ca. 92702-4048

Please consider the past history of this property when making a determination. From the fraud that led it to be originally approved, to the sliding slopes and buildings at the Abbey and including the animal corridor THIS IS NOT A GOOD IDEA. Please uphold the principals of the specific plan.

Debra Moddelmog.

D. Moddelmog

RECEIVED TIME AUG.12. 9:03PM PRINT TIME AUG.12. 9:06PM

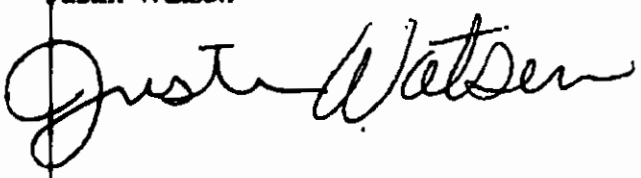
Justin Watson
19252 Sleeping Oak
Trabuco Canyon, Ca. 92679

Manager,
OCPDS/Environmental & Project Planning Services Division
300 N. Flower St.
Santa Ana, Ca. 92702-4048

RE: Saddleback Meadows

What effect is this project going to have on the Abbey and the Monistary, this is part of Orange Countys Culture. Where can these places be relocated without builders taking away their serenity??

Justin Watson



CITY OF LAKE FOREST

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Mayor Pro Tem
Peter Herzog

Council Members
Richard T. Dixon
Kathryn McCullough
Marcia Rudolph

City Manager
Robert C. Dunek

City Clerk
Jeri L. Stately

August 12, 1997

Mr. Raymond H.C. Brantley
Environmental Management Agency
Environmental & Project Planning
P.O. Box 4048
Santa Ana, CA 92702-4048

SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT #566, SADDLEBACK MEADOWS DEVELOPMENT

Dear Mr. Brantley:

Thank you for the opportunity to review the Environmental Impact Report for the Saddleback Meadows Project. Last year, when the Board of Supervisors considered this project in November, City staff provided verbal comments on the project at the public hearing. The City continues to have concerns regarding the project. On April 23, 1997, the City submitted comments to the County on the Revised Notice of Preparation for DEIR #566. The City's NOP Comments were not cited or addressed in the DEIR Document. The comments identified below in this letter represent the City's previously stated concerns regarding the project. We are expecting that the County, as the lead agency, will address these comments in the "Response to Comments" Document for DEIR #566.

From the materials presented, it is clear that significant grading and remediation of the site will be necessary. According to the EIR, this grading will involve 2.5 million cubic yards of conventional grading and just under 9 million cubic yards of remedial grading. The EIR did not address the amount of off-site trucking activity which will occur as a result of the earthwork. Earthwork of this magnitude could result in the functional equivalent of half a million double-trailer truck loads of material to be moved. It is our understanding that because of the constraints of this site, a significant portion of this

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earthen material will be required to be moved to off-site locations for stockpiling and drying prior to returning to the re-engineered and strengthened site.

The City of Lake Forest has significant concerns about the potentially tremendous increase in traffic, particularly truck traffic, that this project could have on the City. The reports indicate that the excavation and trucking may take as long as eighteen months to complete. The duration of construction is not addressed in the EIR. The City and its residents have been inundated over the last few years with significant public construction and private development outside the City, and the City and its residents have borne a disproportionate impact from this activity. A partial list of construction projects which have impacted the City are as follows: the Foothill Transportation Corridor, the El Toro Y Project (including streets and off-ramp closures), the Foothill Circulation Phasing Plan improvements, and all of the construction and on-going industrial business operations in the City's Sphere of Influence and north thereof.

Based on the impacts from these projects, our residents specifically requested that the City Council consider the adoption of truck routes within the City. The City Council has held a public hearing on this request and is actively studying the need for truck routes within the City. It is our view that approval of this project and the types of truck traffic it would generate would only further the need to establish truck routes within the City. At a minimum, the County needs to incorporate conditions of approval and environmental mitigation relative to truck traffic as it impacts the City, its residents, and its infrastructure. A financial mechanism should be established to reimburse the City for the repair and maintenance costs associated with such heavy truck traffic load on City streets.

There are other concerns the City has regarding this project, including the appropriate mitigation of the coastal sage scrub plant community (68.7 acres) and other environmentally sensitive plant and animal species. It is not entirely clear from the documentation how these environmentally sensitive areas are to be addressed. Nor is it indicated or insured that adequate safety precautions will be taken during the grading process to insure that the environmentally sensitive areas (i.e. Aliso Creek) are protected from impacts such as grading, or a grading induced landslide.

The EIR indicates that the project represents a potential conflict with the Aliso Creek Corridor Specific Plan. The potential conflict must be specified. The Aliso Creek Regional Riding & Hiking Trail is a valuable recreation resource currently used by residents of the City of Lake Forest and our Sphere of Influence. Significant impacts to Aliso Creek and the Trail, including construction impacts, should be avoided or completely mitigated.

Finally, the EIR indicates that children from the proposed project will be absorbed into the Saddleback Valley Unified School District. It is further indicated that all SVUSD schools in the project vicinity are near capacity. The Environmental Impact Report should address whether the increase in school age children associated with the project will impact Saddleback Valley Unified School District Schools within the City of Lake Forest. Specifically, identify whether enrollment or teacher student ratio will be impacted at any Lake Forest public school site.

The concerns identified above must be addressed in the Draft Environmental Impact Report. Please provide the City with a copy of the DEIR "Response to Comments" Document as soon as it is available.

Sincerely,
CITY OF LAKE FOREST

Gayle Ackerman for

KATHY L. GRAHAM, J.D., AICP
Director of Community Development

cc: City Council
Planning Commission
Robert C. Dunek, City Manager
Gayle Ackerman, AICP, Senior Planner
Michael E. Balsamo, Community Development Planner

August 12, 1997

Mr. George Britton, Manager
Environmental & Project Planning Services
County of Orange
Planning & Development Services Department
300 North Flower Street, P.O. Box 4048
Santa Ana , CA 92702-4048

RE: **Comments on the County of Orange, Draft Subsequent Environmental Impact Report for Saddleback Meadows Project (Recorded Tract 10692) - SCAG No. I 9700347**

Dear Mr. Britton:

Thank you for submitting the **County of Orange, Draft Subsequent Environmental Impact Report for Saddleback Meadows Project (Recorded Tract 10692)** to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

The attached detailed comments are meant as administrative comments to provide guidance for considering the proposed project within the context of our regional goals and policies. SCAG's policy level review will be initiated with the presentation of the proposed Saddleback Meadows Project to SCAG's Standing Committee on Implementation (SCI) on September 4, 1997 at 11:00 am at the SCAG office in Los Angeles. You or the project developer are cordially invited to attend this meeting and answer any questions. If you have any questions regarding the attached comments, please contact Bill Boyd at (213) 236-1960. He will be contacting you with further information concerning this SCI meeting.

Sincerely,

J. DAVID STEIN
Manager, Performance Assessment and Implementation

SOUTHERN CALIFORNIA
SOCIATION of
GOVERNMENTS

Main Office
318 West Seventh Street
12th Floor
, Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

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Orange: William Steiner, Orange • Steve Apodaca San Clemente • Ron Bates ntos • Art Brown Buena Park • Jan Debay ach • Richard Dixon, Lake Forest • nkeyama, La Palma • Bev Perry, Brea

Riverside: James Venable, Riverside nnis Draeger, Calimesa • Dick Kelly ert • Ron Loveridge, Riverside • Andrea erma • Ron Roberts, Temecula

San Bernardino: Larry Walker, San County • Bill Alexander, Rancho • Jim Bagley, Twentynine Palms • ter, Colton • David Eshleman, Fontana e Miller, San Bernardino • Gwenn Norton-hino Hills

ventura: Judy Mikels, Ventura County • Thousand Oaks • John Melton, Santa foung, Port Hueneme

**COMMENTS ON THE COUNTY OF ORANGE
SADDLEBACK MEADOWS PROJECT (RECORDED TRACT 10692)
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

PROJECT DESCRIPTION

The Saddleback Meadows site encompasses approximately 222 acres and is located on the easterly side of El Toro Road, approximately ½-mile south of the intersection of Santiago Canyon Road/El Toro Road and Live Oak Canyon Road, in east-central unincorporated Orange County. The incorporated cities of Mission Viejo and Lake Forest lie approximately three miles to the south and southwest, with the Cleveland National Forest boundary located approximately ½-mile north of the project site. The project site is surrounded by residential development, with the Portola Hills and Foothill Ranch planned communities to the west, the Hidden Ridge/Hidden Hills community and a nursery to the south, and scattered low-density residential uses to the north and east. O'Neill Regional Park is located adjacent to the southerly boundary of the site with St. Michael's Abbey immediately to the northwest and the Ramakrisha Monastery located immediately to the southeast.

The Project site is located within the Foothill/Trabuco Specific Plan and the DEIR states that the Project is inconsistent with many of the goals, objectives and policies of the plan which generally calls for preservation of the rural character and natural habitat of the area. The site is also located within the Aliso Creek Corridor Specific Plan area, and the DEIR notes that although it incorporates regional; riding and hiking trail connections into its design, it does conflict with several other aspects of the Plan. For example, it would not preserve recreational open space or conserve natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel. The DEIR also states that the project is in direct conflict with the Natural communities Conservation Planning Program (NCCP) in that it would disturb sensitive wildlife habitat area. The project site is also situated just north of the Foothill Transportation Corridor.

The proposed Project would construct a previously approved and recorded Tract Map 10692 which was originally approved in 1979 and recorded in 1988. The Draft SEIR notes that the Project is consistent with the approved tract map, and proposes the phased planned development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure. The gross residential density is 3.17 du/ac, with minimum lot sizes of 2,630 square feet. The total development footprint would affect 86 percent or about 191 acres of the project site. Thirty-nine percent of the project site is proposed to remain in open space, including community slope area. The project proposes eight private park sites; regional equestrian hiking and bicycle trail connections; and the construction of a water tank site to be dedicated to the

local water company.

Prior to the most recent submittal of a grading permit application for Tract Map 10692, the project was proposed for 318 single-family dwelling units. The Draft EIR for the Project noted that the 318-unit project was "environmentally superior" to the 705 unit project currently being proposed, the 318-unit proposal was denied. The earlier Draft EIR had identified the 705-unit project as one of the two environmentally inferior alternatives considered.

The Draft EIR identifies the following areas of controversy that have arisen in response to the Notice of Preparation and which are addressed in the DEIR:

- Land Use/Aesthetic Compatibility
- Foothill-Trabuco Specific Plan Conformance
- Emergency Access Requirements
- Wildlife Corridor Design Width
- Project Specific Affordable Housing Requirements
- EIR Preparation Process/Procedures
- Loss of Wild Habitat
- Geophysical Stability
- Traffic/Circulation

The following alternatives to the proposed development are evaluated in the DEIR:

- Alt. 1 No Project/No Development.
- Alt. 2 Foothill-Trabuco Specific Plan Alt. A - 150 Minimum 20,000 sq. ft. lots.
- Alt. 3 Foothill-Trabuco Specific Plan Alt. B - 100 SFD Units on 31.7 acres.
- Alt. 4 OCP&DS Staff Alternative (EIR 561) - 299 SFD Units, Min. 5,000 sq. ft. lots.
- Alt. 5 Cluster/Reduced Development Footprint - 318 SFD/MFD.

INTRODUCTION TO SCAG REVIEW PROCESS

The document that provides the primary reference for SCAG's project review activity is the Regional Comprehensive Plan and Guide (RCPG). The RCPG chapters fall into three categories: core, ancillary, and bridge. The Growth Management (adopted June 1994), Regional Mobility (adopted June 1994), Air Quality (adopted October 1995), Hazardous Waste Management (adopted November 1994), and Water Quality (adopted January 1995) chapters constitute the core chapters. These core chapters respond directly to federal and state planning requirements. The core chapters constitute the base on which local governments ensure consistency of their plans with applicable regional plans under CEQA. The Air Quality and Growth Management chapters contain both core and ancillary policies, which are differentiated in the comment portion of this letter. The Regional

Mobility Element (RME) constitutes the region's Transportation Plan. The RME policies are incorporated into the RCPG.

Ancillary chapters are those on the Economy, Housing, Human Resources and Services, Finance, Open Space and Conservation, Water Resources, Energy, and Integrated Solid Waste Management. These chapters address important issues facing the region and may reflect other regional plans. Ancillary chapters, however, do not contain actions or policies required of local government. Hence, they are entirely advisory and establish no new mandates or policies for the region.

Bridge chapters include the Strategy and Implementation chapters, functioning as links between the Core and Ancillary chapters of the RCPG.

Each of the applicable policies related to the proposed project are identified by number and reproduced below in italics followed by SCAG staff comments regarding the consistency of the project with those policies.

Consistency With Regional Comprehensive Plan and Guide Policies

1. The Growth Management Chapter (GMC) of the Regional Comprehensive Plan contains a number of policies that are particularly applicable to this Project.

a. *Core Growth Management Policies*

3.01 The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.

SCAG staff comments. As SCAG has designated subregions, the project is situated in the Orange County subregion. Implementation of the project would result in the creation of 705 housing units. The DEIR acknowledges on page 4-3 that the project site is situated within a Regional Statistical Area that is forecasted to grow at the rate of 2.3 percent between 1995 and 2000. Although the DEIR does not identify the projected population that would be accommodated by the 720 units, it is evident that this growth can be accommodated in that forecasted by SCAG for the subregion. The project is consistent with this RCPG policy.

3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.

SCAG staff comments: The DEIR contains an analysis of the relationship of the Project to this policy (18 months to complete project grading, phasing of residential units within 5

years following completion of grading, installation of all infrastructure during initial phase) on page 3-16. The Project is consistent with this RCPG policy.

b. *Ancillary Growth Management Policies*

3.04 Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.

SCAG staff comments. The DEIR references consistency of the Project's objective of providing affordable housing in a jobs-rich, housing-poor area on page 4-11. It notes that the project was conditionally approved in 1979 with a 66 2/3 percent affordable housing requirement in accordance with the County's Inclusionary Housing Policy. The county policy has since been rescinded, but the project is bound by the original tract map to provide a total of 470 lots to be sold in the affordable range. These lots are further broken down to include: 188 low/moderate and 282 Medium I level housing units. The Project is supportive of this RCPG policy.

3.05 Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities.

SCAG staff comments. This Project would utilize existing water and sewer infrastructure that is available at the site boundary. The type of development proposed in the Project makes good use of this infrastructure as stated on pages 4-230 and 231 of the DEIR. The Project is supportive of this RCPG policy.

3.11 Support provisions and incentives created by local jurisdictions to attract housing growth in job rich subregions and job growth in housing subregions.

SCAG staff comments. See comments on policy 3.04. The Project is supportive of this RCPG policy.

3.12 Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.

SCAG staff comments. The Draft EIR on page 4-52 states that the proposed Project will generate 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. The project site is not served by an existing bus route adjacent to the site on El Toro Road. The nearest OCTA bus service (2

routes) are located 2.25 and 2.5 miles southwest of the project site, and the nearest park-and-ride facility is located 2.0 miles southwest of the site. No provisions are made to provide for transit access to the site and to reduce the reliance on the automobile. The Project will result is increased need for roadway improvements to meet projected vehicle trips and miles traveled. The Project is not supportive of this RCPG policy.

3.17 Support and encourage settlement patterns which contain a range of urban densities.

SCAG staff comments. The Project proposes that the entire site be developed for single residential use at a gross residential density of 3.17 du/acre. Alternative No. 5 (Cluster/Single Family/Multifamily) would have significantly less total acres of the site disturbed (113.0 ac versus 191.4 ac). This alternative could better achieve intent of this SCAG policy, while minimizing site disruption and preserving more open space. The Project is not supportive of this RCPG policy.

3.18 Encourage planned development in locations least likely to cause adverse environmental impact.

SCAG staff comments. The DEIR states that the proposed Project will result in the following unavoidable adverse impacts that cannot be mitigated to a level less than significant:

- Land use incompatibility impacts to O'Neill Regional Park (wildlife habitat), the Ramakrishna Monastery and St. Michael's Abbey.
- Vehicular emissions from project related traffic will have a cumulative significant air quality impact.
- Project specific and cumulative impacts to 50.3 acres of Venturan-Diegan transitional coastal sage scrub until such time as a section 4 (d) interim take is authorized.
- Development of the first large tract within the Foothill/Trabuco Specific Plan area will result in cumulative impacts to existing rural and natural open space and to a continued urbanization of foothill areas in south Orange County.
- Permanent viewshed alteration will occur with regard to the regional park, monastery and abbey and additional night lighting glare change night views from an unlit dark open space to an urban night environment.

Furthermore, the project would result in significant impacts related to slope stability, landslides, mud slides, subsidence and erosion. Mitigation measures are proposed to address these impacts, but the fact remains that the project will result in a total of 2.6 million cubic yards of conventional grading and 8.9 million cubic yards of remedial grading. Taken as a whole, the Project is not supportive of this RCPG policy.

3.19 National Forests shall remain permanently preserved and used as open space. SCAG shall support policies and actions that preserve open space areas identified in local, state, and federal plans.

SCAG staff comments. The DEIR states that the proposed Project will result in the following conflicts with local or state open space plans and policies:

- The project conflicts with the Foothill-Trabuco Specific Plan, specifically with regard to the preservation of a regionally contiguous wildlife corridor and the types of homes being proposed would be incompatible with site topography and biological resources.
- The project conflicts with the Aliso Creek Corridor Specific Plan in that it would not preserve recreational open space or conserve the natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel.
- The project conflicts with the Natural Communities Conservation Planning Program in that it would further disturb a sensitive wildlife habitat area.

The Project is not supportive of this RCPG policy.

3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.

SCAG staff comments. The Draft EIR identifies a number of instances where this policy is not supported:

- The loss of 50.3 acres of Venturan-Diegan Transitional Coastal Sage Scrub that, although it will not be considered a "take" under federal requirements, will when added to other losses in the area, total about 2.4% of the coastal sage scrub in the Southern Subregional NCCP program area.
- The loss of 3.8 acres of Muelfat Scrub (associated with three ephemeral ponds) and 3.3 acres of Southern Sycamore Riparian Woodland which are significant because of their values as wildlife habitats and their function as wetlands.
- The loss of 14.6 acres of Coast Live Oak Woodland (312 individual trees) which are significant because of their wildlife values, their function in watershed protection and their function as part of the planned NCCP regional wildlife corridor.
- The loss of 0.6 acres of existing Ephemeral Ponds which is significant due to the presence of the Riverside fairy shrimp which is a federally endangered species.

- Direct impacts to 1.65 acres of wetlands and 1.78 acres of "Waters of the United States" (intermittent streams and man-made stock ponds).
- Adverse, but not significant, loss of populations of two sensitive plant species, the Catalina mariposa lily and intermediate mariposa lily.
- The loss of approximately 50.3 acres of potential nesting and foraging habitat (coastal sage scrub) on and off site, including portions of areas occupied by at least 12 pairs of southern California rufous-crowned sparrows and at least six pair of coastal cactus wrens, both of which are regionally sensitive species.
- General loss of habitat for at least 63 animal species which were observed during various on-site surveys.
- Acknowledgment that "the project, as currently proposed, may hinder or preclude the preparation of the Southern Subregional NCCP Preserve, due to restricted wildlife movement corridors".

The Project is not supportive of this RCPG policy.

3.21 *Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.*

SCAG staff comments. The Draft EIR acknowledges that the Project is known to contain significant deposits of artifacts (four significant sites) and fossils, as well as a ranch house ruin. The project is not supportive of this RCPG policy.

3.22 *Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.*

SCAG staff comments. The Draft EIR acknowledges that the Project site is characterized as containing ridges, ravines, and gullies with natural slope gradients ranging from nearly level along some ridge crests and valley bottoms to 1:1 (horizontal:vertical) within deeply incised gullies. The slope characteristics of the site are as follows: 95.5 acres (43% of site) is in the 0-25 percent slope category; 94.9 acres (43%) is in the 26-50 percent slope category; and, 31.8 acres (14%) of the project site has slopes in excess of 50 percent. As noted in the project description, significant grading is required to develop the site as proposed.

The Draft EIR also acknowledges that the Project is located in an area designated as a high "Special Fire Protection" area due to its combination of natural combustible vegetation, topography and weather conditions (frequent dry Santa Ana winds). Furthermore, Draft EIR notes a potential conflict between the human environment and the two main top predators of the region, coyotes and mountain lions.

The Project is not supportive of this RCPG policy.

3.23 *Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.*

SCAG staff comments. Discussion of mitigation measures to address emergency response concerns due to seismic hazards, biological and ecological resources and other natural or manmade hazards are included in the Executive Summary of the Draft EIR. The Project is supportive of this RCPG policy.

3.24 *Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment..*

SCAG staff comments. See staff comments on policy 3.04. The Project will increase the supply and quality of affordable housing in southeastern Orange County. The Project is supportive of this RCPG policy.

2. The Regional Mobility Chapter (RMC) also has policies, all of which are core, that pertain to the proposed project. This chapter links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption. promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. Among the relevant policies in this chapter are the following:

Transportation Demand Management and Regional Transit Program Policies

4.01 *Support Promote TDM programs along with transit and ridesharing facilities as a viable and desirable part of the overall mobility program while recognizing the particular needs of individual subregions.*

4.03 *Support the extension of TDM program implementation to non-commute trips for public and private sector activities.*

4.04 *Support the coordination of land use and transportation decisions with land use and transportation capacity, taking into account the potential for demand management strategies to mitigate travel demand if provided for as a part of the entire package.*

SCAG staff comments. See staff comments on policy 3.12. SCAG's December 31, 1996 letter on the Notice of Preparation for the Saddleback Meadows project recommended consideration of these three policies in the preparation of the Draft EIR. No apparent consideration was given to the provision of TDM or transit services to meet the needs of the proposed 6,220 trip ends per day in year 2020. Mitigation measure AM 5-3 is not an air quality mitigation measure, but rather a commentary on not taking credit for mobile source emission reductions, including trip reduction programs. The Project is inconsistent with the three TDM/transit RCPG policies.

Regional Streets and Highways Program Policies

4.20 *Expanded transportation system management by local jurisdictions will be encouraged.*

4.23 *TSM activities throughout the region shall be coordinated among jurisdictions.*

SCAG staff comments. The Draft EIR notes that the Project developer will pay for signal modifications and turn lanes at the intersections of El Toro Road with Valley Vista Way and the new northern collector street serving the site. Furthermore, a mitigation measure (AM 4-16) assures that the developer will participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program, El Toro Road Fee Program and the Santiago Road Fee Program. The Project is consistent with these two RCPG policies.

Regional Non-Motorized Transportation Program Policies

4.25 *The development of the regional transportation system should include a non-motorized transportation system that provides an effective alternative to auto travel for appropriate trips. The planning and development of transportation projects and systems should incorporate the following, as appropriate:*

- *a* o *Provision of safe, convenient, and continuous bicycle and pedestrian infrastructure to and throughout areas with existing and potential demand such as activity areas, schools, recreational areas (including those areas served by trails), which will ultimately offer the same or better accessibility provided to the motorized vehicle.*

- *b* o *Accessibility to and on transit (bus terminals, rail stations, Park-And-Ride lots), where there is demand and where transit boarding time will not be significantly delayed.*

c o *Maintenance of safe, convenient, and continuous non-motorized travel during and after the construction of transportation and general development projects. Existing bikeways and pedestrian walkways should not be removed without mitigation that is as effective as the original facility.*

SCAG staff comments. The Draft EIR acknowledges that the Project abuts the Aliso Creek Bikeway. Mitigation measures (PDF 10-1 and 10-2) assure the construction of the Live Oak Canyon and Aliso Creek riding and hiking trails within the Project boundaries. No local bikeway or pedestrian circulation improvements are provided for in the Project design. The Project is consistent with this RCPG policy as it relates to regional bikeway and trail access but inconsistent with the policy as it pertains to local bikeways and pedestrian walkways within the Project site.

4.27 *Urban form, land use and site-design policies should include requirements for safe and convenient non-motorized transportation, including the development of bicycle and pedestrian-friendly environments near transit.*

SCAG staff comments. See previous comments on policies 3.12, 4.01, 4.03, 4.04 and 4.25. The Project is inconsistent with this RCPG policy.

3. The Water Quality Chapter (WQC) core recommendations and policy options relate to the two water quality goals: to restore and maintain the chemical, physical and biological integrity of the nation's water; and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters. The core recommendations and policy options that are particularly applicable to the Project include the following:

11.02 *Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.*

SCAG staff comments: The Draft EIR acknowledges that the project site is located within the boundaries of two primary watershed areas: 1) Aliso Creek (75% of site) and 2) Oso Creek (24% of the site). The Draft EIR on page 4-38 acknowledges that "Implementation of the proposed project will result in the introduction of impervious surfaces (streets, driveways, residential units) and will result in a **decrease in the area available for stormwater percolation** and a **substantial increase in stormwater runoff.** Implementation of the proposed project will result in **substantial landform modification,** redirecting site drainage throughout the site."[emphasis added] The Project proposes drainage improvements that mitigate drainage impacts to a level less than significant. However, the project as noted previously herein, conflicts with the Aliso Creek Corridor Specific Plan in that it "would not preserve recreational open space or conserve the natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel". The Project does not recognize watershed management policy in the local government approved Aliso Creek Corridor Specific Plan. The Project is inconsistent with this RCPG policy.

Conclusions and Recommendations:

(1) As noted in the staff comments, the proposed Saddleback Meadows Project is consistent with or supports many of the policies in the Regional Comprehensive Plan and Guide, but is inconsistent with core policies 4.01, 4.03, 4.04, 4.27 and 11.02 and is not supportive of ancillary policies 3.12, 3.17, 3.18, 3.19, 3.20, 3.21 and 3.22. Furthermore, the Project is consistent with some aspects of core policy 4.25 and inconsistent with others, as noted in the staff comments.

(2) All mitigation measures associated with the project should be monitored in accordance with AB 3180 requirements and reported to SCAG through the Annual Reasonable Further Progress Reports.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS is a ***Joint Powers Agency*** established under California Government Code Section 6502 et seq. Under federal and state law, the Association is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). Among its other mandated roles and responsibilities, the Association is:

- Designated by the federal government as the Region's ***Metropolitan Planning Organization*** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. §134(g)-(h), 49 U.S.C. §1607(f)-(g) et seq., 23 C.F.R. §450, and 49 C.F.R. §613. The Association is also the designated ***Regional Transportation Planning Agency***, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

- Responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the ***South Coast Air Quality Management Plan***, pursuant to California Health and Safety Code Section 40460(b)-(c). The Association is also designated under 42 U.S.C. §7504(a) as a ***Co-Lead Agency*** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

- Responsible under the Federal Clean Air Act for determining ***Conformity*** of Projects, Plans and Programs to the State Implementation Plan, pursuant to 42 U.S.C. §7506.

- Responsible, pursuant to California Government Code Section 65089.2, for ***reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans*** required by Section 65080 of the Government Code. The Association must also evaluate the consistency and compatibility of such programs within the region.

- The authorized regional agency for ***Inter-Governmental Review*** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

- Responsible for reviewing, pursuant to Sections 15125(b) and 15206 of the CEQA Guidelines, ***Environmental Impact Reports*** of projects of regional significance for consistency with regional plans.

- The authorized ***Areawide Waste Treatment Management Planning Agency***, pursuant to 33 U.S.C. §1288(a)(2) (Section 208 of the Federal Water Pollution Control Act)

- Responsible for preparation of the ***Regional Housing Needs Assessment***, pursuant to California Government Code Section 65584(a).

- Responsible (along with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council) for preparing the ***Southern California Hazardous Waste Management Plan*** pursuant to California Health and Safety Code Section 25135.3.

"Preparing today's students to succeed in tomorrow's w l."

August 13, 1997

Mr. Ray Brantley
Environmental & Project Planning
County of Orange
Planning & Development Services Dept.
P. O. Box 4048
Santa Ana, CA 92702-4048

Subject: Draft EIR 566, Saddleback Meadows Project

Dear Mr. Brantley:

Per our telephone conversation, we request an extension of response time to September 3, 1997, for the above referenced project.

Thank you very much.

Sincerely,

Mary Lou Smith
Facilities Planner

dd

SADDLEBACK VALLEY UNIFIED SCHOOL DISTRICT
25631 DISEÑO DRIVE
MISSION VIEJO, CALIFORNIA 92691
(714) 586-1234

SUPERINTENDENT
Dr. Peter A. Hartman

BOARD OF EDUCATI
Dore J. Gilbert, M.D., Presid
Marcia L. Birch, Clerk
Debbie Hughes, Mem
Nancy Kirkpatrick, Mem
Don Sedgwick, Member

LETTER OF TRANSMITTAL

Attachment D

TO County of Orange
Environmental & Project Planning Division

P.O. Box 4048

Santa Ana, CA 92702-4048

Date	September 8, 1997
Attention	Ray Brantley
Subject	Draft EIR 566
	Saddleback Meadows

GENTLEMEN:

WE ARE SENDING YOU

[X] Attached

[ ] Under separate cover the following items:

Attached please find the hard copy of the District's comments regarding the above referenced project.

THESE ARE TRANSMITTED as checked below:

[ ]	For approval	[ ]	Approved as submitted
[X]	For your use	[ ]	Approved as noted
[ ]	As requested	[ ]	For payment
[ ]	For review and comment	[ ]	For your information
[ ]	_____		

REMARKS

COPY TO _____

_____

_____

SIGNED Mary Lou Smith Hg. Ld

Mary Lou Smith, Facilities Planner
Saddleback Valley Unified School Dist.
25631 Diseno Dr., Mission Viejo, CA 926

August-13-1997

"Preparing today's students t
succeed in tomorrow's w l.

Mr. Ray Brantley
Environmental & Project Planning
County of Orange
Planning & Development Services Department
P.O. Box 4048
Santa Ana, Ca 92702-4048

Re: Draft EIR #566
Saddleback Meadows Development

Dear Mr. Brantley:

In response to the above Draft EIR #566 indicating that approval of this project would have significant impacts on the district's provision of adequate school facilities unless mitigation is provided, we would like to provide some information for your consideration:

This project is proposed for 705 manufactured single family housing units. Most of the similar projects in our district have "adults only" restrictions; however, of the one existing project we identified as accepting children, following are the student generation factors:

K-6 =	.2264	= 160
7-8 =	.0566	= 40
9-12 =	.0755	= 54
K-12 =	.3585	= 254 students

As we have no district standard for manufactured housing, the above is our prediction for the impact of this project on our district.

Currently, students in this general area are assigned to Portola Hills Elementary, Rancho Santa Margarita Intermediate and either El Toro High School or Trabuco Hills High School. ALL of these schools are filled to capacity and either do have now or will have by fall, 1997 added a number of relocatable buildings to house enrollment exceeding the capacity of their original construction.

Per the current practice of the County of Orange regarding other projects, the district requests that this project be conditioned to require that the proponent, California Quartet, Inc., meet with district staff to review the impact and necessary mitigation measures needed as a result of this project.

Peter A. Hartman
District Superintendent

mls/8837

SADDLEBACK VALLEY UNIFIED SCHOOL DISTRICT
25631 DISEÑO DRIVE
MISSION VIEJO, CALIFORNIA 92691
(714) 586-1234

SUPERINTENDENT
Dr. Peter A. Hartman

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Marcia L. Birch, Clerk
Debbie Hughes, Mem
Nancy Kirkpatrick, Mem
Don Sedgwick, Member

TE OF CALIFORNIA — THE RESOURCES AGENCY PETE WILSON, Governor
DEPARTMENT OF PARKS AND RECREATION
Los Lagos District
17801 Lake Perris Drive
Perris, California 92571

August 15, 1997

Mr. Ray Brantley
County of Orange
300 N. Flower Street
Santa Ana, CA 92702

Re: Saddleback Meadows DEIR 566

Dear Mr. Brantley:

The California Department of Parks and Recreation (CDPR), Los Lagos District office has reviewed the above referenced document; thank you for the opportunity to provide comments.

The CDPR is a trustee agency as defined by CEQA. In addition, a defining tenant of our mission is to help to preserve the state's extraordinary biodiversity. As the office responsible for the stewardship of the natural and cultural resources of Chino hills State Park, we have an interest and concern about land use decisions in the geographic area as they relate to our mission and responsibilities under CEQA.

We view the maintenance of a functional system of interconnected wildland areas throughout the region as vitally important to the preservation of biodiversity. The Santa Ana mountains and the Puente-Chino Hills are an interdependent ecological system. The health of each area is integral to the other. CHSP is located in the Puente-Chino Hills adjacent to the northern end of the Santa Ana Mountains. The Santa Ana Mountains provide a valuable source of genetic material that helps to maintain the health and diversity of CHSP's plant and animal populations.

The importance of the two areas to each other continues to increase as they each become smaller, more isolated, and more fragmented by surrounding development. Fragmentation and isolation portends massive ecosystem collapse that could render all of our other regional conservation efforts nearly pointless.

Given the importance of the Santa Ana Mountains to the maintenance of the diversity of life in CHSP and the Puente-Chino Hills, we are concerned about the potential isolating and fragmenting effects of projects in the vicinity of the mountain range, and conserved lands within it such as the Cleveland National Forest and O'Neill Regional Park. We believe that development adjacent to these protected wildland areas should be designed in a manner that will preserve functional biological corridors and buffer protected lands from more intensive land uses.

After reviewing the alternatives for the project, it appears that Alternative 3 is the most responsible one. It limits development to the western side of the project, thereby protecting connectivity between O'Neill Regional Park and the Cleveland National Forest. It also places new development next to existing residential and commercial areas while providing a significant buffer to the park and forest. It appears that all of the other alternatives in some way fragment the National Forest from the Regional Park, and reduce the buffer to existing wildland.

In the final development decision, we believe it is incumbent on the lead agency to approve an alternative that is responsible to the invaluable natural resources found in the Cleveland National Forest, the County Regional Parks, and throughout the surrounding Region. We appreciate the consideration given to buffers and corridors in the environmental review, and we encourage their full protection. Thank you for the opportunity to comment. If you have any questions, please contact Geary Hund, Doreen Ferguson or myself at (909) 657-0676.

Sincerely,

Bill Berry

Bill Berry
District Superintendent

cc: CDPR, Resource Management Division

Mr. Gail Kobetich, Field Supervisor
United States Fish and Wildlife Service

Ms. Patricia Wolf, Acting Regional Manager
California Department of Fish and Game

RURAL C. NTONE CONSERVATION FUND
PO BOX 556
TRABUCO CANYON, CA 92678

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August 18, 1997

County of Orange
Planning and Development Services Department
ATTN: Raymond Brantley
P.O. Box 4048
300 N. Flower Street, Room 321
Santa Ana, CA 92702-4048, VIA MAIL AND FAX: 834-2771

RE: Draft EIR 566 for Saddleback Meadows

Dear Mr. Brantley:

We have reviewed Draft EIR 566 (the DEIR) and comment as follows:

1. DEIR MUST IDENTIFY FEASIBLE MITIGATION MEASURES AND PROJECT ALTERNATIVES

A bizarre disclaimer precedes the body of this DEIR at page 3-8:

> It is therefore understood that the environmental analyses and evaluations contained in this document are largely informational, and not prescriptive in nature in that mitigation measures which would alter features of the final recorded tract map can not be implemented to reduce all project impacts to a level of insignificance. This is attributable primarily to the physical limitations of the site and the inability to deviate from the final recorded tract map. Accordingly, any findings of significant impacts must be offset through the issuance of a statement of Overriding Considerations.

Does this mean that some or all of the mitigation measures listed in the DEIR are "largely informational" and "can not be implemented"? If so, those mitigation measures should be identified, because CEQA requires the EIR to set forth <u>feasible</u> mitigation measures and alternatives to reduce or eliminate the project's identified significant environmental impacts to the extent feasible. Please identify for the decision makers which mitigation measures "can not be implemented," and which can be implemented.

Further, in stating that "any findings of significant impacts must be offset through the issuance of a statement of Overriding Considerations," the disclaimer implies that the County lacks any discretion to deny the grading permit. As explained below, however, the County may deny the grading permit, or approve an alternative to it.

2. THE COUNTY HAS DISCRETION TO DENY THE PROJECT OR APPROVE AN ALTERNATIVE PROJECT.

As acknowledged in the DEIR, the Foothill/Trabuco Specific Plan explicitly mandated environmental review of the project under CEQA, requiring an Initial Study and "additional environmental documentation" "[p]rior to the issuance of any grading permit for the subject property." (FTSP §III.3.2(c).) This provision implies discretion--preparing environmental documentation would simply waste time and paper if it could not be acted upon. CEQA Guidelines classify the issuance of a building permit as discretionary if local ordinance--in this case the FTSP (enacted in 1991 by ordinance)--contains "any discretionary provision." (CEQA Guidelines §15268(b).) §III.3.2(c) recited above appears to constitute such a "discretionary provision" in this case.

As the court noted in Friends of Westwood v. Los Angeles (1987) 191 Cal.App.3d 259, 266-268, preparing environmental documentation for a purely ministerial project would be futile since the approving agency has no discretion to modify such a project to eliminate or reduce environmental impacts.

Nor does any statute or regulation say that the granting of a grading permit is necessarily ministerial. That depends on the particular circumstances. (CEQA Guidelines §15268(a).) The Westwood court held that "doubt whether a project is ministerial or discretionary should be resolved in favor of the latter characterization." (Id. at 191.)

Also, the court in Day v. Glendale (1975) 51 Cal.App.3d 817, 824, held that CEQA may apply even to a governmental approval involving virtually no discretion if that approval "is the only point at which the environmental impact of the project may be publicly considered...."--certainly the case here.

The County's Grading Code also appears to contain several "discretionary provisions" under §7-1-821, "Denial of permit." It says, in part especially

pertinent to this project: "If, in the opinion of the Building Official, the land area for which grading is proposed is subject to geological or flood hazard to the extent that no reasonable amount of corrective work can eliminate or sufficiently reduce the hazard to human life or property, the Grading Permit and the Building Permits for habitable structures shall be denied." (O.C. Grading Code, §7-1-821, emphasis added.) Another paragraph provides for denial of the grading permit if the project "cannot be designed in accordance with" the "Orange County General Plan, Specific Plans, Zoning Code or other rules, regulations, or conditions applicable to the project." (§7-1-821(d).) Still another says the "Building Official may require plans and specifications to be modified in order to mitigate anticipated adverse environmental effects of proposed grading projects." (§7-1-821(c).) These ordinances, then, provide considerable discretion for the County in granting or denying the proposed grading permit.

Finally, and contrary to the disclaimer, CEQA provides for reducing or avoiding a project's significant environmental impacts through adoption of an alternative project. The DEIR in fact sets forth two alternative projects, numbers 3 and 4, which mitigate every one of the project's identified significant environmental impacts while still attaining its objectives. (DEIR page 6-22.) The DEIR contains no evidence that either of these two alternatives is not feasible.

3. DEVELOPMENT COSTS MAY RENDER THE PROJECT ITSELF INFEASIBLE.

In making required CEQA determinations, the decision makers will have to compare the project's feasibility with that of the available alternatives. Unfortunately, the DEIR supplies little or no evidence on which to base such findings.

The feasibility of the preferred project, however, seems dubious at best. On the one hand, several factors limit the selling price of the 708 housing units, including the County's affordable housing requirements (Condition 19 of recorded tract map), small lot size, crowded design, and the low market value of manufactured units. The $155,000 average per unit selling price used in the DEIR's fiscal impact report seems unduly optimistic, especially since much larger, conventional houses across El Toro Road have assessed valuations averaging only $200,000 to $250,000.

On the other hand, development costs seem unusually high, due primarily to the extensive amount of required grading (11.5 million cubic yards, DEIR page 4-22). Even for a project having much less grading than proposed here, Larry L. Simon estimated $44 million in site preparation costs in an August 1990 report prepared for Imperial Federal Savings Association (No. RTC-90-000042), or $62,000 per units in site preparation costs alone. Land and construction costs, plus per-unit fees for roads, tollways, bridges, schools, etc. would of course add to the project's costs.

The DEIR should contain the best available information on the feasibility of this project and its alternatives so that the decision makers can make a reasoned choice.

4. THE GRADING PLAN MUST BE PROVIDED FOR REVIEW.

The DEIR seems to contain only a "conceptual" and mostly illegible grading plan" (DEIR page 4-23). Since the project <u>is</u> a grading permit, involving a phenomenal amount of grading,, the grading plan itself must be included in the DEIR to allow the public and responsible agencies to review it.

The grading plan must indicate the location of the 19.77 acres of "offsite grading" (DEIR page 3-8).

We consider this omission sufficiently serious to require supplementation of the DEIR and an extension of the comment period.

5. A FULL FAITHFUL PERFORMANCE BOND SHOULD BE REQUIRED.

Given the project's questionable feasibility and extensive geological instability, it remains a prime candidate for failure during the 18-month grading process. We note that two previous owners and would-be developers of this site went bankrupt. The EIR must assess the potential safety problems resulting from a half excavated site: drainage and erosion, collapse of adjacent properties, collapse of El Toro Road, etc., as well as the possible financial liability to the County in the event of abandonment. As a mitigation measure, the County must impose as a condition of approval of any grading a full faithful performance bond sufficient to restore the site to a safe condition.

6. DEIR MUST ANALYZE REAL EFFECTS ON CIRCULATION--NOT INTERSECTION LEVELS OF SERVICE.

The DEIR analyzes the project's impacts on traffic and circulation by listing the level of service expected at various intersections around the project. These levels of service, based on the number of lanes, roadway geometry, and traffic volumes, generally indicate how many signal changes it will take to get through an intersection.

The County must stop using this methodology, because it does not measure the true impact on transportation--i.e., on people trying to get from one place to another. Not surprisingly, typical developer-prepared EIR's invariably conclude, as does this one, no significant impact on the region's traffic and circulation. Only minor road widenings, restriping traffic lanes, and installation of more traffic signals are normally deemed necessary to avoid such significant impacts.

And yet, the average travel times have dramatically increased in the region, due mainly to the proliferation of traffic signals. For example, in 1983, there were no traffic signals on El Toro Road from Cook's Corner to Trabuco Road. By 1997, there were seven. While each one may operate at level of service "D" or better, they collectively can (and often do) add several minutes to a trip which used to take only five minutes.

The average trip time more effectively measures and summarizes the project's true impact on "traffic and circulation" than does simply tabulating the expected levels of service at a growing number of signalized intersections, and will more realistically reflect the inevitable and increasing conflicting movements of vehicles generated by the sprawling suburban development in this region.

Under CEQA, EIRs must be written in plain language so that the public can understand the potential effects of a project. This DEIR's traffic analysis fails this requirement, as explained above. Typical travel times, with and without the project, should be included in the DEIR.

7. DEIR MUST ASSESS THE ACTUAL IMPACT ON SCHOOLS.

The DEIR gives short shrift to the project's impacts on schools--a single sentence affirming the obvious, that the project would send "400 additional students into the currently overcrowded Saddleback Valley Unified School District." (DEIR page 4-220.) As mitigation,

it proposes only the payment of required school fees of $1.72 per square foot of residential (page 4-224), and then somehow concludes that "[n]o unavoidable adverse impacts would occur to education services" (page 4-226).

This conclusion cannot be supported by the available evidence. As the school district has repeatedly verified, the state-required fees do not suffice to provide required school facilities in the region. The DEIR must list the school facilities to be impacted by the project, describe the existing conditions at these facilities, and then assess the expected impact of the project on each.

These comments are made on behalf of the Rural Canyons Conservation Fund, Ray Chandos as an individual, Bruce Conn as an individual, Sherry Meddick as an individual, and any other person opposed to this project as proposed. These comments and any references contained herein are hereby incorporated into the official record of proceedings of this project and its successors.

Sincerely,

Ray Chandos

Ray Chandos
Secretary/Treasurer

Governor's Office of Planning and Research
)0 Tenth Street
Sacramento, CA 95814

August 19, 1997

RAYMOND H.C. BRANTLEY
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
300 N. FLOWER STREET
SANTA ANA, CA 92702-4048

Subject: SADDLEBACK MEADOWS RESIDENTIAL DEVELOPMENT SCH #: 96121072

Dear RAYMOND H.C. BRANTLEY:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

Antero A. Rivasplata

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Notice of Completion

See NOTE below

SCH # 96121072

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

Project Title: Saddleback Meadows -- DEIR 566

Lead Agency: County of Orange — **Contact Person:** Ray Brantley/Bill Griema

Street Address: 300 N. Flower Street — **Phone:** (714) 834-3763/834-5175

City: Santa Ana, CA — **Zip:** 92702 — **County:** Orange

Project Location

County: Orange — **City/Nearest Community:** Cities of Mission Viejo and Lake Forest

Cross Streets: El Toro Rd./Live Oak Canyon Rd. — **Zip Code:** 92679 — **Total Acres:** 222

Assessor's Parcel No.: 856-071.81 & 91 — **Section:** — — **Twp.:** — — **Range:** — — **Base:** —

Within 2 Miles: State Hwy #: 241 (FTC) — **Waterways:** Upper Oso Reservoir

Airports: N/A — **Railways:** N/A — **Schools:** Portola Hills Elem.

Document Type

CEQA: ☐ NOP ☐ Supplement/Subsequent ☐ Early Cons ☐ EIR (Prior SCH No.) ☐ Neg Dec ☐ Other ☒ Draft EIR

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan ☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan ☐ Rezone ☐ Prezone ☐ Use Permit ☒ Land Division (Subdivision, Parcel Map, Tract Map, etc.) ☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other

Development Type

☒ Residential: Units 705 Acres 91
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational
☐ Recreational

☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type Watts
☐ Waste Treatment: Type
☐ Hazardous Waste: Type
☒ Other: Open Space - 131

Project Issues Discussed in Document

☒ Aesthetic/Visual ☒ Agricultural Land ☒ Air Quality ☒ Archeological/Historical ☐ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs ☐ Fiscal ☒ Flood Plain/Flooding ☒ Forest Land/Fire Hazard ☒ Geologic/Seismic ☐ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities ☒ Recreation/Parks ☒ Schools/Universities ☐ Septic Systems ☒ Sewer Capacity ☒ Soil Erosion/Compaction/Grading ☒ Solid Waste ☐ Toxic/Hazardous ☒ Traffic/Circulation ☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☒ Wildlife ☒ Growth Inducing ☒ Landuse ☒ Cumulative Effects ☒ Other

Present Land Use/Zoning/General Plan Use

Residential (Presently Vacant)

Project Description Implement recorded Tract 10692 for the phased development of 705 manufactured single-family residential units and a 1.7 acre neighborhood commercial center on a 222.23-acre site. The gross residential density proposed is 3.17 dwellings per acre, with an average lot size of 3,900 square feet and a minimum lot size of 2,630 square feet.

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please provide it.

State Clearinghouse Contact: Mr Chris Belsky (916) 445-0613

State Review Began: 7.1.97

Dept. Review to Agency: 8.6

Agency Rev to SCH: 8.13

SCH COMPLIANCE: 8.15

Please note SCH Number on all Comments

96121072

Please forward late comments directly to the Lead Agency

AQMD/APCD 33 (Resources: 7.15)

Project Sent to the following State Agencies

5

- X Resources
- ___ Boating
- ___ Coastal Comm
- ___ Coastal Cnsv
- ___ Colorado Rvr Bd
- ___ Conservation
- X Fish & Game # 5
- ___ Delta Protection
- ___ Forestry
- ___ Parks & Rec/OHP
- ___ Reclamation
- ___ BCDC
- X DWR
- ___ OES
- ___ Bus Transp Hous
- ___ Aeronautics
- ___ CHP
- ___ Caltrans #
- ___ Trans Planning
- X Housing & Devel
- ___ Health & Welfare
- ___ Drinking H20
- ___ Medical Waste

5

- ___ State/Consumer Svcs
- ___ General Services
- ___ Cal/EPA
- ___ ARB
- ___ CA Waste Mgmt Bd
- ___ SWRCB: Grants
- ___ SWRCB: Delta
- X SWRCB: Wtr Quality
- ___ SWRCB: Wtr Rights
- X Reg. WQCB # 8
- ___ DTSC/CTC
- ___ Yth/Adlt Corrections
- ___ Corrections
- ___ Independent Comm
- ___ Energy Comm
- ___ NAHC
- ___ PUC
- ___ Santa Mn Mtns
- X State Lands Comm
- ___ Tahoe Rgl Plan
- ___ Other:

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August 21, 1997

Raymond Brantley
Orange County Planning & Development Services
Environmental & Project Planning Services Division
300 N. Flower Street
P. O. Box 4048
Santa Ana, California 92702-4048

Re: Saddleback Meadows; Draft Subsequent EIR No. 566

Dear Mr. Brantley:

This office, and the undersigned in particular, represent St. Michael's Abbey ("Abbey"). As you may be aware, the Abbey is a landowner adjacent to the proposed Saddleback Meadows Project ("Project") for which the above-referenced Draft Subsequent Environmental Impact Report ("DSEIR") has been prepared. The Abbey will be directly affected by this Project.

The Abbey opposes the Project as currently proposed, for many of the same reasons already expressed in connection with the processing of Environmental Impact Report No. 561. That EIR was the subject of numerous letters from our office, raising various objections to CEQA, land use inconsistencies, and other problems with the Project. The provisions of those letters are incorporated herein by reference, and we would request that copies of them be made a part of the administrative record in the processing of this DSEIR.

The Abbey believes there are a number of legal, environmental, planning, and other defects in the currently proposed Project. This letter, and the items incorporated herein by reference, constitute the Abbey's comments under CEQA public comment procedures for DSEIR No. 566.

For ease of reference, the comments are grouped under separate subject headings below.

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1. The Project description and public review of the Project are flawed.

At the outset, the Abbey must note that there is significant confusion regarding exactly what is the Project being reviewed. The Project chronology at DSEIR 2-8 and 2-9 indicate the catalyst for the preparation of this DSEIR was an application for a Phase I grading plan. The Project description at DSEIR 3-1, et seq., seems to indicate the Project is the actual construction of a 705-unit affordable housing project. This project includes a 1.5 acre neighborhood commercial center, which is referenced at DSEIR 3-1, but not analyzed further in other sections of the DSEIR. Moreover, DSEIR 3-15 lists approval of a grading plan and issuance of a grading permit as included within the discretionary actions covered by the environmental review.

Given this, an obvious question arises. Where is the grading information? Neither the DSEIR nor the grading study attached as Appendix D includes any specific grading plan. In fact, page 4 of the grading study indicates that the report was conducted at what it terms a "EIR level," and that more detailed evaluation would occur during 40-scale grading plan review. Given the imminence of the grading activities, and their role as the entire cause for the environmental processing, this is inadequate. Title 14, California Code of Regulations § 15147[1] requires an EIR to include technical information "sufficient to permit full assessment of significant environmental effects by reviewing agencies and members of the public." This Project appears to be at a "construction project" level, as that term is used in CEQA Regs. § 15146(a), and consequently deferred analysis of the full range of all effects from the massive grading proposed is inappropriate.

Further, I am advised that the 40-scale grading plan, and other information required to determine and assess the specific impacts of the proposed grading, has not been publicly available, even up until a few days prior to the announced deadline for submission of DSEIR comments. This is a "construction phase" project proposal; it is not a general plan or program EIR. Consequently, all of the specifics of the grading proposal should have been formulated, and available for public review and comment, prior to Project approval. The DSEIR has failed to follow this process. Attached as Appendix "A" is a listing of all "mitigation measures" which defer analysis on various topics until the time of grading permits. Obviously, no grading permit can issue without a specific grading plan, yet that plan was not proffered for public review and comment. Given the large number of other analyses which hinge on the grading information, such information certainly constitutes "significant new information" as that term is used in CEQA Regs. § 15088.5, without which full, adequate public review is impossible. The DSEIR

[1] Cited herein as "CEQA Regs."

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therefore must be re-noticed and recirculated after all the appropriate grading and other information has been available for the full comment period.

2. Analysis and incorporation of mitigation measures is improperly deferred.

No doubt in large part due to the failure to have specific grading information available, an entire host of items which require environmental analysis has been improperly deferred. Appendix "A" hereto is a chart of deferred analyses listing the various mitigation measures purportedly imposed upon the Project, but which actually reveal that fundamental aspects of the environmental impacts of the Project as yet remain unaddressed. These include key items like mitigation of impacts on endangered species such as the Riverside Fairy Shrimp, impacts on the California Gnatcatcher, acoustical analyses, street configurations and lines of sight, drainage studies, and design of storm drain improvements, to name a few.

The environmental impacts of these components of the Project are neither described or assessed, and no readily identifiable mitigation standard for these impacts is adopted. Given this, the conclusions regarding mitigation of the related impacts to a level of nonsignificance is unsupported by any evidence in the record, and therefore fails to meet the standards imposed upon the lead agency under CEQA Regs. § 15091(b).

3. The available grading information demonstrates the Project should not proceed.

Although incomplete, what grading information is included in the DSEIR clearly indicates the Project should not proceed. The entire Project area is underlain by landslides, and excavations reveal heavy seepage (DSEIR 4-31; Appendix D, p. 7). In addition, the oldest and deepest landslides on the property are merely projected from "necessarily limited exploratory borings." (Appendix D, p. 8, 16.) This is hardly the type of area which is suitable for the projected 11.5 million cubic yards of direct and remedial grading.

Incredibly, the DSEIR identifies 4" to 6" of settlement likely over the graded area. It finds such impacts insignificant, based upon a wildly optimistic presumption that settlement will occur at uniform rate, and occur evenly over a well-distributed area. (DSEIR 4-33.) With all due respect, the courts are filled with multi-party landslide cases, involving millions of dollars of damage, on ground settlement which is considerably less extensive. This effect must be regarded as significant, and must be mitigated.

Indeed, the grading information in the DSEIR is contradictory. At page 4-24, it is indicated that no blasting is anticipated. Mitigation measure AM 2-33 contemplates blasting of hard cemented sandstone beds, however. If the Project proponent and its consultants cannot at

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this phase even uniformly identify the grading measures needed, how is the County or the reviewing public to accurately determine the grading impacts from this proposal?

Last December, the Board determined this site was not appropriate for a 318-unit development. The comments already submitted by St. Michael's Abbey on grading and soils matters in connection with EIR No. 561 remain fully applicable here, are incorporated herein by reference, and show grading impacts will be significant. These effects remain unmitigated. Obviously, the site remains unsuitable for the far more intense 705-unit proposal now proposed.

4. Seismic impacts are improperly assessed.

Appendix D, page 11, seems to dismiss seismic risks to the site, with a generalized discussion of risks inherent throughout Southern California. Given the grading constraints on the property, a more particularized discussion of potential faulting and its potential impacts on the proposed Project are required. Specifically, DSEIR 4-20 lacks any discussion of the El Modena or Norwalk faults, both of which appear sufficiently proximate to the Project site to create seismic disturbances.

5. The DSEIR contains a number of improper or vague mitigation measures.

In order to meet legal requirements, a mitigation measure must have a readily identifiable, performance-based standard which must be met. A number of the mitigation measures in the DSEIR fall short of this requirement.

For example, AM 2-22 merely contains advisory language that certain types of rock are "best not incorporated" in fills. AM 2-27 contains only recommendations, and no requirements. AM 2-45 calls for "precautions in respective expanse of soils," which is vague, and should be further specified.

Mitigation measure SC 2-4 simply cannot be met. The DSEIR recognizes the incompatibility of the Project with O'Neill Regional Park. (See DSEIR 4-12.) The degree of required grading eliminates any compatibility with natural land characteristics of adjacent open space areas, making compliance with this mitigation measure impossible.

6. A number of significant environmental impacts are improperly addressed.

The DSEIR is also rife with inaccurate or contradictory information in assessing environmental impacts, and concludes they are insignificant. For example, the hydrology study listed in Appendix L appears to have been done for a 318-unit proposal, not the 705-unit

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proposal listed in the project description. (See hydrology map and "Discussion" text in Appendix L.) DSEIR 4-39 contains an admission that the drainage analysis is inadequate, in stating that it may need to be updated after review of the 40-scale rough grading plans. The preliminary master plan of storm drain improvements listed in PDF 3-1 (DSEIR 4-41) references a tentative map 15230, not the Project, and is essentially unreadable. This map gives no legible reflection of what drainage facilities will be built where, and no narrative or other graphic summary providing any further explanation appears in the DSEIR. All these studies need to be redone to analyze the Project now proposed.

Regarding noise, DSEIR 4-110 assesses noise from a projected 3,780 daily Project trips. DSEIR 4-52 indicates the daily trip projection is 6,220. The conclusions regarding vehicular noise are therefore suspect, and should be redone. In addition, DSEIR 4-113 indicates that air conditioning units are standard for housing projects, but fails to require such units as a mitigation measure for exterior noise. This should be included as a mitigation measure. In addition, the entire acoustical analysis appears to be deferred (see DSEIR 4-115). It should be conducted now.

Most strikingly, the DSEIR completely "ducks" impacts to the Riverside Fairy Shrimp, Coastal Sage Scrub habitat, and the California Gnatcatcher. DSEIR 4-152 indicates 105 acres of off-site mitigation will be required, but the availability or location of this mitigation property receives no discussion. DSEIR 4-157 delays the Gnatcatcher survey until some future time, and fails to provide the County or the reviewing public sufficient information to determine Gnatcatcher impacts from the Project whose approval is sought.

DSEIR 4-199 indicates a population generation estimate of 2.57 persons per household. The fiscal study, in Appendix G, page 22, uses 2.4. This inconsistency should be reconciled.

Regarding transportation, the DSEIR notes the nearest bus stop is between 2.25 and 2.5 miles from the Project site (DSEIR 4-52.) This is completely inconsistent with the proposed affordable nature of the housing development, whose residents are likely to be more heavily reliant on public transportation. Extension of service or alternative project locations should therefore be analyzed. There is no separate analysis of the traffic, noise, or air quality impacts of the buses which will be required to transport the estimated 399 additional students which will come from the Project, to already overcrowded schools. (DSEIR 4-218.) More fundamentally, the DSEIR appears to simply "will away" the impacts to the local schools from these additional students, all the while acknowledging current classrooms are overcrowded. DSEIR 4-216 contains a number of ambiguous conclusions regarding impacts on sheriff, fire, education, and library services. The double negative wording of these sentences seems to indicate each may have a significant impact, none of which is mitigated.

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7. The alternatives analysis is insufficient.

CEQA Regs. § 15126(d)(5)(B) calls for review of alternative locations, or a finding regarding the infeasibility of alternative locations. The DSEIR fails to address alternative locations.

The alternatives discussion contains inappropriate language suggesting some sort of legal obligation for the County to refund various payments, many of which we understand were made by the Project applicant's predecessor in interest, and not the applicant itself. While we have not conducted a legal analysis of these somewhat unusual claims, we have been informed that many of the water and other development impact credits resulting from these previous payments are fully transferrable, and could be marketed by the owner of the Project at any time. Consequently, the statement regarding any obligation for refunds in the event of consideration of a "No Project" alternative appears incorrect factually, let alone irrelevant to the environmental analysis the DSEIR purports to be undertaking.

The DSEIR makes clear that the "No Project" alternative is the environmentally superior choice. Consistent with prior representations it has made, however, the Abbey has no objection to the 100-unit proposal, currently listed as Alternative 3. The Abbey believes this represents a sound balance between the environmental constraints on the site, and the Project proponent's desire for some degree of development on the property.

8. The DSEIR's land use planning presumptions are inaccurate.

Although not precisely related to environmental impacts, the DSEIR contains a number of statements regarding land use entitlements the Abbey believes are inaccurate. The proposed Project is not, as the DSEIR asserts, essentially exempt from the Foothill Trabuco Specific Plan ("FTSP"). (DSEIR 4-4, 4-11.) The Growth Management Element of the County's General Plan was last revised on October 19, 1993, after the adoption of the Foothill Trabuco Specific Plan in 1991. This element is the self-described "key resource document for growth management concerns." Subsection (E)(6) requires that all new development within the Foothill Trabuco Specific Plan planning area "shall be rural in character, and shall comply with the policies of the [Foothill Trabuco Specific Plan] . . . in order to maintain a buffer between urban development and the Cleveland National Forest." The Project is clearly contrary to these goals, does not comply with FTSP standards, and is therefore inconsistent with the General Plan.

Moreover, the Project is not "exempt" from FTSP requirements even under the terms of the Specific Plan. Section 3.2(c) of the Bridlewood Residential District Requirements specifically indicates CEQA review is required prior to the issuance of grading permits for the

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previously-approved map. Consequently, additional discretionary review and approval was specifically contemplated prior to the time the Project was to be implemented. Any contention of "vested rights" from the filing of the map is therefore inapposite.

In addition, there is some question regarding the validity of the map in the first instance, given the chronology which the DSEIR lists. The map was apparently approved in December of 1979, and recorded some nine years later, in December, 1988. The chronology points out that the last stay was granted only until July 24, 1986. There is no indication, at least in the chronology, that the County approved any further extension. What was recorded therefore very may well have been an expired map, which would vest no development rights whatsoever, regardless of any claimed FTSP "exceptions."

9. Conclusion.

Even without all the defects listed above, the DSEIR concludes a number of significant impacts are unmitigated, including land use impacts and grading impacts. Given this, the Project approval will require a Statement of Overriding Considerations, which the Abbey believes is wholly insupportable in this context.

While advocacy of affordable housing is laudable, the prior history of this project raises question as to whether such housing will ever be built pursuant to this proposal. Further, the inaccessibility of the site and the instability of its soils make it peculiarly inappropriate for high density residential development of any type, including affordable units.

Put simply, the Project is inconsistent with the Abbey and the neighboring Ramakrishna Monastery. With all due respect to housing needs, the Abbey submits that the roles the Abbey and Monastery play, and the services they provide, are unique assets in Orange County. The Abbey would hope that the County would value these assets more than another in what many consider to be all-to-common residential developments, and not issue a Statement of Overriding Considerations condoning the Project's inconsistency with surrounding land uses.

Whether seriously proposed in its own right, however, or merely as a backdrop to make a previously-rejected project appear more palatable, the DSEIR is insufficient to support the Project approval sought. For this reason, the Abbey respectfully requests the County to fail to certify the DSEIR, and to reject any grading applications, or other development permits, which may be sought pursuant to it.

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St. Michael's Abbey thanks the County for the opportunity to respond to this DSEIR, and looks forward to working with the County and the applicant on a more environmentally sound Project proposal.

Very truly yours,

RUTAN & TUCKER, LLP

David B. Cosgrove

DBC/tr
Enclosures

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APPENDIX A

CHART OF MITIGATION MEASURES WHICH DEFER ANALYSIS UNTIL GRADING PERMIT

Measure	Deferred Analysis
SC 2-2	Geotechnical Report.
SC 2-3	Conformity of grading with Grading Plan.
SC 2-4	Compatibility of grading with natural land characteristics of open space.
SC 2-5	Approval of offsite grading.
SC 2-6	Compliance with Grading Plan fill soils and shrinkage/bulking pattern.
SC 2-10	Conformance of proposed grading with Grading Plan's slope heights, slope ratios, and pad elevations.
SC 2-11	Assure affected adjoining landowners have given consent for offsite grading/drainage.
SC 2-12	Determine if vector control measures are necessary.
SC 2-13	Prepare Water Quality Management Plan.
SC 2-16	Determine back cut failure guidelines.
SC 3-2	Provide drainage study for impact on existing drainage facilities.
SC 3-3	Design surface drainage improvements.
SC 3-8	Submit Water Quality Management Plan.
SC 3-9	Identify best management practices for on-site pollution runoff.
SC 3-10	Obtain coverage under NPDES Permit.
SC 4-8	Assure adequate site distance for street intersection.
SC 5-2	Demonstrate compliance with SCAQMD dust suppression requirements.
SC 6-2	Provide acoustical analysis for meeting noise mitigation requirements.

SC 6-9	Produce evidence of compliance of grading and construction activities to County's Noise Control Ordinance.
SC 6-10	Produce evidence that grading equipment has properly functioning mufflers.
SC 6-11	Produce evidence that stockpiling/vehicle storage areas will be located as far as practicable from dwellings.
SC 7-2	Obtain Streambed Alteration Agreement from CDFG.
SC 7-3	Obtain 404 Permit from ACOE.
SC 7-4	Provide NCCP accounting summary of Coastal Sage Scrub impact.
SC 7-5	Obtain USFWS approvals for Coastal Sage Scrub impacts.
SC 7-7	Assure compliance with Federal Endangered Species Act.
SC 7-8	Submit landscape and tree preservation plan.
SC 7-11	Conduct Gnatcatcher survey to determine if this endangered species will be impacted.
SC 7-12	Provide appropriate measures to mitigate impact on wildlife movement.
SC 7-14	Prepare mitigation plan for Riverside Fairy Shrimp.
SC 8-6	Design privately maintained landscape areas.
SC 8-9	Design graded areas to be compatible with natural landform characteristics.
SC 9-1	Retain certified archaeologist to survey site for cultural resources.
SC 9-5	Identify all potential archeological sites.
SC 9-9	Retain certified paleontologist for survey site.
SC 9-18	Retain historian to implement final mitigation measures.
SC 11-8	Determine if vector controls are necessary.
SC 11-12	Submit preliminary plans for private streets.

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Environmental & Project Planning

August 22, 1997

Mr. Ray Brantley
Orange County Planning and Development Services Department
Environmental and Project Planning Services Division
300 N. Flower, Room 321
Santa Ana, CA 92702-4048

Subject: Saddleback Meadows – Comments on Draft Subsequent EIR 566

Dear Mr. Brantley:

SFC Consultants (SFC) has reviewed the Saddleback Meadows Draft Subsequent EIR 566 ("DSEIR 566" or "EIR") for CEQA compliance and consistency. SFC understands that the County of Orange required DSEIR 566 to be prepared as a result of a grading permit application having been submitted by the developer of the Saddleback Meadows project for the construction of grading improvements for 705 manufactured single family dwelling units with concomitant infrastructure and utilities on approximately 222 acres.

Before getting into the details of the EIR adequacy, some very basic concerns about this DSEIR 566 should be enumerated. First, although the filing of the grading permit application appears to have been the event which triggered the preparation of DSEIR 566, the 40-scale grading plans upon which the permit application is based have not been made available for public review, nor has the geotechnical review of those plans been made available. In addition, these materials have not been addressed in or made a part of DSEIR 566. As a result, a full assessment of the construction level impacts of the project has not been done as required by CEQA.

Second, whether or not the project analyzed in this DSEIR 566 is a grading plan application or the basic development plan, it is extremely important for this EIR to provide as much detail as possible in discussing environmental impacts and providing relevant mitigation measures. Gathering further information and complying with resource agencies in the future is not proper mitigation. However, this type of mitigation is listed throughout the EIR. Exactly 51 of the 200 EIR mitigation measures are based on "Prior to Grading Permit" timing. It is important for the Planning Commission to realize that at this late stage in the development, many of the required mitigation measures should be formulated and be subject to public scrutiny now, not at a later date after the EIR has already been certified.

Third, the geotechnical section of the EIR is also riddled with references to "gathering future information as mitigation measures". This may be acceptable if the environmental issue remains significant after mitigation; however, the EIR states that the geotechnical mitigation will mitigate any future and unknown impacts to less than significant levels. This is not a realistic conclusion considering future unknown impacts. A geotechnical review of the grading plans is the mechanism with which we can be assured that the mitigation measures recommended will actually work.

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Fourth, the traffic section of the DSEIR arbitrarily limits its review and impact analysis of intersections to the El Toro Road/ Santa Margarita Parkway intersection and intersections to the north thereof. No analysis has been presented for critical intersections to the south. Also, there is no indication in the traffic study if the traffic calculations have been adjusted to account for the difference in projected use versus actual use of the Foothill Corridor. Published reports indicate that the San Joaquin Corridor's projected usage was overestimated by nearly 50%. The DSEIR should include all intersections that will be impacted by 705 units, including El Toro Road and the San Diego Freeway (I-5), and especially if the Foothill Corridor estimates are similarly overstated. In addition, not withstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the traffic impacts from the reuse of the El Toro MCAS as a commercial airport. It is also not clear from the DSEIR if the regional traffic model utilized for the project impacts, and cumulative project impacts, actually incorporate the regional changes to the traffic resulting from a commercial airport at El Toro.

Fifth, the DSEIR provides a baseline discussion of the impacts from the El Toro MCAS fly-overs. However, the impact section of the EIR fails to identify a noise analysis or potential CNEL contours as a result of the base reuse plan as an active commercial airport. No mitigation measures are included for a multiple fly-over commercial airport. Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the noise impacts from the reuse of the El Toro MCAS as a commercial airport or the regional traffic noise associated with the commercial airport. The DSEIR states "Depending upon future site re-use, aircraft noise may or may not be an important issue." The aircraft noise from a commercial airport at El Toro will be an important issue and must be addressed in the DSEIR.

Sixth, it is also important to note that the biological mitigation for ACOE and CDFG coordination may change the site plan, which would then require a revised EIR. If site plan redesign is not feasible, then the EIR should point out where the off site mitigation locations will be. In addition, the EIR indicates in several places that mitigation measures cannot be implemented by changes to the grading plan because this proposed project is a legally recorded tract map. However, under the Federal Endangered Species Act, all "take" must be accommodated, regardless of tract recordation or not.

Seventh, the alternatives in the EIR should reflect alternative grading scenarios together with the comparable grading impacts associated with them. DSEIR 566 alternatives currently compare alternative land uses or densities, although these tend to be limited to different grading scenarios. Also, CEQA requires an alternative location to be discussed. This issue is missing in the EIR and should be included.

Eighth, the EIR mitigation measures are also plagued with the word "should" instead of "shall". "Should" mitigation measures will become "shall" upon certification of the EIR. If the lead agent is not sure of a mitigation measure's applicability at this stage of approval, then perhaps the lead agent does not really want to implement important mitigation measures, but simply provide the necessary environmental paper work for a recorded tract map.

Finally, the Planning Commission should keep in mind, that this recorded map for 705 units does not tie the County to instant EIR certification, in which CEQA simply becomes a necessary evil. CEQA allows for a public agency to not approve a project as proposed, if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment (CEQA Guideline Section 15021). The Planning Commission can only override unavoidable adverse impacts if it finds that there are legitimate social, economic, or other considerations which truly outweigh such impacts. Simply implying that affordable housing is an overriding consideration is insufficient to justify the significant environmental effects of the project.

I look forward to your timely response. Please call me at my office if you have any questions.

Sincerely,

SFC Consultants

Saundra F. Jacobs, REA
Principal

SFJ/sg

Attachments

cc: City of Mission Viejo – City Council, Mayor Craycraft
Orange County Board of Supervisors – Todd Spitzer
California Department of Fish and Game – Liam Davis
Trabuco Canyon Water District – Bruce Bonner
Saddleback Valley News

SFC Consultants

COMMENTS TO DRAFT SEIR 566

The following comments are listed in same order as the EIR sections for convenience:

Section 1.0 Executive Summary

CEQA Guidelines Section 15161 indicates that "The EIR shall examine all phases of the project including planning, construction, and operation". A phased project must be evaluated in light of each phase. The first sentence of Section 1.0 Executive Summary, Subsection 1.1, page 1-1, describes the project as "the phased development of 705 manufactured single family housing units..." yet the EIR states on page 3-16, Section 3.4 Project Phasing that grading will occur in one phase. This statement, in turn, appears to be at odds with the reference (in Table 3 on page 2-8 of the EIR) to the developer's submittal of an application for "Phase I Grading Plan" on December 3, 1996. Therefore is the grading being phased, or is the construction being phased? If the grading is phased, a phasing plan should be submitted with the EIR distribution and review. DSEIR 566 should describe what the grading phases are, including how much grading in Phase I, II, III etc. A Phasing Plan should be included as part of this DSEIR, and not just be made another condition of approval. Moreover, if residential construction is also being phased in addition to the grading, this needs to be spelled out and addressed in the DSEIR. The Planning Commission cannot certify a DSEIR having such piece-meal information on grading and phasing.

Section 2.0 Introduction

Technical error: Page 2-7, Table 3 chronology of June 13, 1984: Ordinance 3486 should read – Ordinance 3468.

Section 3.0 Project Description

Page 3-8, first paragraph. The project description indicates that the removal of the mandated Inclusionary Housing Program requirements could undermine the County-wide calculations used to eliminate the affordable housing mandate. This statement on the surface may seem valid enough, but there is no factual evidence in the EIR to support such speculation. Instead of mere speculation, the DSEIR should include a thorough discussion of housing issues, including the possibility of eliminating the need for affordable units and allowing for a more environmentally sensitive project to be considered.

Page 3-8, Project Features, indicates that a 1.4 million-gallon water tank would be required for this project of 705 units. EIR 561, which analyzed 318 units, also required a 1.4 million-gallon water storage tank. The quantity of fire flow, and stored water necessary for the 705 units therefore appears inconsistent. If two 1.4 million-gallon tanks, or one 2.8 million gallon tank are required, this would significantly increase either the size of the tank location for two tanks, or the amount of grading and screening that would be needed for an increased tank size. The water tank site is owned by the Trabuco Canyon Water District, however, Mr. Bruce Bonner, General Manager of the

District was not aware of the discrepancy, and was planning to comment on the EIR for the proper information. Without the proper water storage available for 705 units, the project could not be developed and the DSEIR could not be certified. The extent of grading for the increased tank size and its location must be addressed in the DSEIR. Changing the size of the tank size will also require an amendment to the original Recorded Tract Map. Once the County receives this information, a revised section for review and comment by the public should be prepared.

Page 3-16, Project Phasing: Project grading is noted as being implemented in one phase, but this does not square with the fact that the developer has only submitted 40-scale grading plans for "Phase I" of the project which, apparently, only involves a portion of the proposed 705 units. This inconsistency should be resolved because, obviously, if the grading is to occur in several stages, instead of in "one phase," then the grading impacts would occur over a much longer period of time than the 18-month estimate set forth in the DSEIR.

Moreover, if the EIR shows and states the grading in one phase, then the entire grading plan at 40 scale should be made part of the Appendices to the EIR or, at the very least, the grading plans (and the geotechnical reports needed to fully understand them) should be incorporated by reference so that members of the public could review them. Either solution will require DSEIR 566 to be revised and recirculated in accordance with CEQA Guidelines Section 15088.5.

The Project Description has inaccurately depicted the project phasing. CEQA Section 15126 requires a complete project description, including all phases, and should be included for review with this DSEIR. Since it appears that the grading will be in phases, this project description is not consistent with CEQA Guidelines Section 15126 and cannot be certified as adequate.

Section 4.0 Existing Conditions, Project and Cumulative Impacts, Mitigation Measures and Level of Significance After Mitigation:

Section 4.1 Land Use/Housing

Notwithstanding the requirements of CEQA Guidelines section 15126(c), the EIR makes no attempt to explore feasible measures to mitigate land use impacts to surrounding areas. Suggested land use mitigation should include: Setback criteria, buffer zones of vegetation, pet restrictions, ridgeline protection, project phasing coupled with an Annual Monitoring Report under Zoning Code section 7-9-103.2(a)(12) to identify imbalances between development and infrastructure, etc. These new mitigations should be included in a revised draft EIR and recirculated for public review and input.

CEQA Guidelines Section 15131 (b) expressly recognizes that construction can adversely impact religious practices: "if the construction of a road and the resulting increase in noise in an area disturbed existing religious practices in the area, the disturbance of the religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environment". While the Land Use/Housing section of the EIR indicates

that the impacts would remain significant, unavoidable and adverse, there is no attempt to mitigate impacts on surrounding religious uses to any level at all.

Section 4.2 Soils and Geology

Although SFC was not able to gain access to any of the current grading plans at the County, SFC has learned that, for a price, the developer made copies of such plans available to certain interested parties and that the plans showed only half of the grading that is proposed for the 705-unit project. As stated above, if the rough grading (including all remedial grading) is to be accomplished in one phase, then the plans showing all the grading work to be performed should be made available for public review and DSEIR 566 should be revised and recirculated to incorporate such plans and all related geotechnical reports. This is particularly important with respect to the remedial grading improvements, (which account for the vast majority of the rough grading operations) because mitigation measures, such as shear keys, cannot be properly evaluated without the grading plans and soils reports, and cannot be constructed in a piecemeal fashion without the risk of slope instability.

Page 4-16, Ground Water: It appears from the State Water Resources Board map of wells in the area that there are at least five wells located northerly, westerly and southerly of the site and landslide areas. These wells depend on the groundwater supplies to remain in operation. During remedial grading, perched groundwater and saturated zones will be encountered (according to the geotechnical study). This excess groundwater will require pumping to a point to where the bottom layer of the 120-foot key cut will need to be cleaned out. The EIR does not discuss the high probability that this excessive pumping may impact groundwater and groundwater recharge to these surrounding wells. Impacts to groundwater and surrounding wells is considered a significant impact in CEQA Guidelines Appendix G(h) and (i). The EIR provides neither discussion of this important issue, nor any mitigation for potential impacts to these wells. While the EIR preparer, or the geotechnical engineer for the project, may speculate that the surrounding wells are being fed by Aliso Creek or "other groundwater", **there is no factual basis to support the conclusion that there will be "no significant groundwater impact" caused by project grading and development.** The Planning Commission must be provided with complete information on this issue before passing on the adequacy of DSEIR 566, and gathering groundwater information during remedial grading for future decisions, and complying with the water resource agencies, is not the proper way to proceed.

Page 4-24, last two paragraphs. These paragraphs state that "unfavorable conditions *(i.e. "some ground water")* can be mitigated by implementing corrective grading concepts". Yet the DSEIR only speculates on the mitigation necessary to truly lessen future impacts to the development from groundwater and postpones for future analysis whatever specific mitigation measures might eventually be proposed by the soils engineer for the project (see page 4-25). This is not in keeping with CEQA.

Once the shear keys are cut on the project site, the DSEIR indicates that subdrains will be required. Subdrains and dewatering facilities are permanent features, and are notoriously

unreliable. This was the case in the Hidden Hills development located immediately adjacent to the south of this site, and is the proposed location of the emergency access to Saddleback Meadows. In this study, the buttress subdrains failed, or in most cases the subdrains were missing and groundwater backed up behind the buttress fill, severely impacting the residences and infrastructure.[1] To truly mitigate geotechnical impacts to less than significant levels, and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendations should be included in this DSEIR prior to certification. In addition, if in fact the subdrains are only to work temporarily, the DSEIR does not explain to where these subdrains will drain. It is presumed that these features will drain to Los Alisos Creek, which is shown as a blue line on the USGS Quad Map. The EIR should discuss the impact of a permanent alteration to the flow of Los Alisos Creek. A higher degree of specificity on this important issue is required prior to EIR certification.

Page 4-25, Mitigation Measure 2-1, state that "A comprehensive remedial grading mitigation plan has been designed to stabilize the project site..." yet on page 4 of the G.A. Nicoll and Associates report in Technical Appendix D, Mr. Nicoll's firm indicates that "a more detailed evaluation" of slope stability issues has yet to be completed and will be conducted as part of the geotechnical review of the 40-scale grading plans. This underscores the fact that only vague and general "concepts" about grading mitigation measures are referenced in DSEIR 566 even though CEQA Guidelines Section 15146 would require a much more detailed and specific discussion of grading impacts and mitigation at this construction-level stage of the project. The mitigation measures listed in this section of the DSEIR are general, boilerplate statements about what information is yet to be gathered and they **do not** represent "a comprehensive remedial grading mitigation plan". The seminal question which remains unanswered is whether DSEIR 566 is intended to be used as the environmental documentation to support the issuance of one or more grading permits for the project or does the County intend to require yet another Supplemental EIR to be prepared to address the grading mitigation measures which are still being analyzed by the project soils engineer? If DSEIR 566 is intended to support the issuance of grading permits, then the construction-level plans and reports necessary for the permits to be issued must be in the EIR itself, instead of being the subject of speculation as to what will be determined at some future date.

Page 4-27, Mitigation Measure 2-3. This mitigation is unnecessarily vague as to who the "decision-maker" is (the Board of Supervisors? the Planning Commission? someone else?), and it is also misleading for the public. CEQA Guidelines Section 15162 states that a subsequent EIR is necessary if "Substantial changes are proposed in the project..." (In this case any substantial change to the grading plan). If the applicant "deviates" from the recorded tract map grading to such an extent that the project has changed and a new application must be submitted per the zoning code, then a subsequent EIR will be required for pubic review of the changed project. In addition, as the current geotechnical mitigation measures are worded, a subsequent EIR would be

[1] *Nolte and Associates, Inc. Geotechnical Study for Seepage, Slope and Pavement Distress, Portion of Tentative Tract 12272, Orange County, California, 1993;and Geotechnical Report of Slope and Street Repair, and Subdrain Installation, A Portion of Tentative Tract 12272, Orange County, California. Both prepared for EPAC Housing Corporation.*

required if conditions are exposed during grading which are significantly different from those described in the project description or geotechnical report. As indicated on page 16 of the Nicoll report: "In the event that during construction, conditions are exposed which are significantly different from those described in this report, they should be brought to the attention of the Soil Engineer." Preparing a Subsequent EIR for changed conditions during remedial grading would not be feasible, therefore sufficient detail must be included with the DEIR and recirculated for public review. The mitigation measure should be revised to reflect this change.

Page 4-27, Mitigation Measure 2-4, is not enforceable unless the Planning Commission requires that the EIR show how the graded areas will be compatible with natural land characteristics of the adjacent open space. Future gathering of information is not proper mitigation for a significant impact.

Page 4-29, Mitigation Measure 2-16, the back cut failure guidelines should be provided now for a construction-level grading permit application EIR. This project is already approved with a recorded map. Therefore, a higher level of detail is essential to demonstrate the overall feasibility of the recommended grading techniques. The criterion the project applicant has to follow is to mitigate impacts to less than significant levels and demonstrate that the mitigation measures are adequate under CEQA. The DSEIR has not accomplished this yet.

Page 4-29, Mitigation Measure 2-20. Ponding will be necessary as part of the dewatering process and within Best Management Practices for Regional Water Quality Control Board requirements. This mitigation measure should be amended to reflect actual ponding that will be necessary and the possibility of Vector Control Permits.

Page 4-31, Mitigation Measure 2-34. Ironically, this so-called "mitigation measure" provides more detailed information regarding groundwater problems and dewatering than any discussion set forth in the text of DSEIR 566. Although page 4-24 of the text merely alludes to "some" ground water that might be encountered during grading, this mitigation measure paints a far more graphic and alarming picture, **"Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher elevations as well as in cuts made late in the year."** As indicated above, groundwater wells are located adjacent to the site and landslide areas. Impacts to surrounding groundwater and groundwater wells from required pumping and dewatering are not even discussed in the text of the DSEIR, yet this mitigation measure appears to expect it. Again, the DSEIR does not, but certainly should, discuss the extreme likelihood that this excessive pumping may impact groundwater wells and groundwater recharge to these surrounding wells. Impacts to groundwater and surrounding wells are considered a significant impact under CEQA. The Planning Commission must be provided with enough factual information before it is asked to certify this EIR. Gathering groundwater information during remedial grading is not proper mitigation. To truly mitigate geotechnical and groundwater impacts to less than significant levels,

and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendations on grading, dewatering and impacts to groundwater and groundwater wells should be included in this DSEIR prior to EIR certification. This DSEIR requires a higher degree of specificity on this important issue prior to EIR certification.

Page 4-33, Section 4.2.7 of **the DEIR should be changed to read "Implementation of this proposed project, with the mitigation measures outlined above will result in unavoidable adverse geotechnical impacts."** At a minimum, there are significant groundwater impacts and slope stability issues that have not been adequately discussed or mitigated in DSEIR 566 and revision and recirculation of the DSEIR is in order to allow public comment on these matters when they are completed.

Within the Technical Appendix D, page 4, Mr. Nicoll's firm indicates that this geotechnical review is for an EIR level of analysis, and that subsequent analysis will be necessary. However, the "EIR level" soils report in Appendix D does not provide the required specificity for the considerations outlined in the DSEIR, including impacts of dewatering during and following construction, slot cutting or staged excavation to assure on-going support of landslide masses to be stabilized, backcut and forecut slope inclinations, and dewatering criteria. A grading plan review report should include all recommendations and geotechnical criteria necessary to undertake and complete all remedial grading improvements and measures, and it should be included as part of DSEIR 566 and circulated to the public. The Planning Commission cannot, without uncertainty, approve this project under the premise that the impacts are mitigated to less than significant levels. If planning staff chooses to amend the DSEIR to show that significant grading impacts will remain after mitigation, then the introduction of new information will trigger recirculation of the EIR per CEQA Guideline Section 15088.5(a).

Section 4.3 Water/Hydrology

EIR 566 appears to utilize the hydrology map from EIR 561 without changing the underlying site plan. While the existing drainage will not change regardless of the site plan, the post development drainage will change from EIR 561 to EIR 566. DSEIR 566 does not include post development drainage calculations. The DSEIR needs to correlate existing versus post-development change in cfs and % in order for the Planning Commission to base its decision on the storm drain improvement plans that were approved in 1988. This subsequent EIR should incorporate all pertinent information and re-verify the prior calculations and not rely solely on County approvals from 1988.

Page 4-39, Table 10 does not correspond with Exhibit 22 as far as proper labeling of the storm drains. If there are not accurate, the Planning Commission should require updated concepts to verify mitigation measures.

Page 4-38 The EIR states that alterations of the rate of flow of groundwater or impacts to groundwater quality are considered to be insignificant. The geotechnical report indicates that

groundwater and saturated zones will require dewatering during grading and excavation of the sheer key. Groundwater from these slide planes will require pumping for an undetermined period of times (as demonstrated in Mitigation Measure 2-34). At least five (5) groundwater wells are located near this project site, directly in the path of the groundwater flow. The geotechnical report has completely disregarded the impacts that may be incurred downstream during construction dewatering. **This EIR section should consider impacts to groundwater as significant**, otherwise the Planning Commission should not certify this EIR with an incorrect impact finding.

Page 4-41, Mitigation Measure 3-1 indicates that the master drainage concept is included as Appendix L. However, upon closer evaluation of the site plan in Appendix L, it appears that the post development calculations are for the smaller 318 units (EIR 561) project. This EIR cannot be certified as adequate with erroneous information pertaining to a much smaller project.

Page 4-42, Mitigation Measure 3-5. How and why is this mitigation important to reducing hydrologic impacts to less than significant levels? What if the upstream and down stream property owners do not sign or agree to a letter of consent? Does the Manager, PDS/Subdivision and Grading Services Division override the property owner and allow consent? The mitigation measure is not enforceable and does not reduce impacts in any way. It should be deleted.

Page 4-42, Mitigation Measure 3-6 indicates participation in a Master Plan of Drainage prior to issuance of any building permits. Preparing a master plan of drainage after the grading has been completed does not allow the County or the public to comment on proper hydrologic calculations. As indicated in the above comment to mitigation measure 3-1, the master drainage concept included in Appendix L was prepared for the smaller 318 units (EIR 561). The master plan of drainage should be submitted with and incorporated into the DSEIR for recirculation and public review.

Page 4-42, Mitigation Measure 3-7 indicates that impacts to the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques. However, the mitigation measures and analysis leading to the measures must be commensurate with the specificity required for a construction-level grading permit application EIR. There is no guarantee that implementation of this mitigation measure will result in insignificant impacts to this environmental issue. Therefore **this impact should be changed to potentially significant after mitigation** because the mitigation measure is not specific enough to conclude otherwise. The mitigation measure is too speculative for future hydrology of a site, particularly with the wrong hydrology report in the DEIR. In addition, there is no timing associated with implementation of this mitigation measure.

Page 4-43, Section 4.3.7 indicates that implementation of the proposed mitigation measures would result in no unavoidable adverse impacts to groundwater hydrology, yet there is no information on impacts to downstream wells from excessive dewatering to support the less than significant impact. This conclusion should be changed to **potentially significant impacts will result after**

implementation of the mitigation measures. In addition, the new information associated with the new finding will require recirculation of DSEIR 566.

Section 4.4 Transportation/Circulation

The traffic section of the DSEIR unfairly limits its review of intersection impacts to El Toro Road/ Santa Margarita Parkway and north. No explanation is given in the DSEIR for this limiting factor, and no analysis is included for the intersections along El Toro south to the San Diego Freeway (I-5). The DSEIR should include all intersections that will be impacted by 705-unit project. This lack of analysis raises another unanswered question: Have the traffic calculations been adjusted to account for the difference in projected use versus actual use of the Foothill Corridor? (The San Joaquin Corridor's projected usage was substantially overestimated by nearly 50%). This difference in projected use versus actual use should be incorporated into the project and regional buildout traffic calculations of the area. With an over estimation of the Foothill Corridor usage, there will need to be an analysis and discussion of traffic along El Toro Road from the Foothill Corridor south to the San Diego Freeway. The intersection of El Toro at the 5-Freeway north and south is virtually impassable during peak hours and the addition of Saddleback Meadows will only exacerbate this growing problem.

Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the traffic impacts from the reuse of the El Toro Marine Corp Air Station as a commercial airport. In addition, it is not clear from the DSEIR if the regional traffic model utilized for the project impacts, and cumulative project impacts, actually incorporates the regional changes to the traffic resulting from a commercial airport at El Toro. CEQA Guidelines Section 15130(b)(1)(B) provides the cumulative impact elements necessary for an adequate discussion include: "A summary of projections contained in an adopted general plan or related planning document (in this case the Draft Reuse Plan EIR) which is designed to evaluate regional or areawide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency." The El Toro Reuse Plan and EIR should be included in the regional analysis and cumulative impacts, incorporated by reference, and made available for public review during the recirculation process. Without such an analysis, **the DSEIR cannot conclude that this traffic issue will have less than significant impacts.**

It appears as though the traffic study has distributed residential trips to the commercial area from the project internally via Valley Vista Way. The traffic analysis does not take into account that Valley Vista is closed to through traffic and is to be used as an emergency access only. According to the grading plan, the only way to the commercial area will be from either El Toro Road or Valley Vista. If Valley Vista is to be blocked off, all trips in the traffic study that were to use Valley Vista will now use El Toro Road. This inconsistency should be resolved.

Review of the traffic count data shows that the information was gathered after schools in the District had been let out for summer. Updated counts should be included after school has started, but before the Christmas holiday season.

Page 4-52, Traffic Impact Modeling section of DSEIR 566 indicates that the proposed project of 705 units will generate 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. However, the Traffic Report in Technical Appendix E states on page 27 that "The Saddleback Meadows (TT-10692) development is projected to generate a total of approximately 8,340 trip-ends per day with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour". **Why is there nearly a 25% discrepancy with respect to trip-end figures?** Even with the inclusion of passby/diverted trip reductions (as calculated on Table 4, page 29 of the Traffic Report in Appendix E), the total project trip-ends is 7,530, nearly 20% greater than what is stated in the DSEIR. The traffic section of the DSEIR should be reanalyzed and recirculated for public review.

Page 4-52, Section 4.4.2 Effects Found To Be Insignificant. This section concludes that the proposed project would not result in insufficient parking capacity onsite or offsite. This is not consistent with the traffic report in Appendix E which indicates on page 10 that "Verification of adequate parking should be analyzed for the project in conjunction with approval of the site plan." The site plan for Saddleback Meadows is already approved. Lack of available parking for high density housing such as this is the number one Home Owner Association complaint and the subject of many homeowner lawsuits against the developer. The DSEIR should discuss what constitutes a significant parking impact, however, in order to do that, parking verification must be performed first. In order for the traffic engineer's recommendation to be consistent with the DSEIR's finding of insignificance for this parking issue, a parking analysis for the site should be performed prior to certification.

Page 4-82, Mitigation measures 4-12 and 4-13 seem to contradict each other. MM 4-12 requires the applicant to design and construct roadway improvements for El Toro Road, including deceleration lanes and entrance pockets, whereas MM 4-13 requires the applicant to provide only a cash deposit for the difference in cost of designing and constructing the roadway improvements of the project compared to the costs associated with the ultimate configuration of El Toro Road. The question that remains, therefore, is whether the project has to pay for or build its fair share of the traffic improvements to El Toro Road?

Page 4-83, Mitigation measure 4-15 states that "Verification of adequate parking shall be analyzed for the site in conjunction with approval of the site plan". This mitigation measure should be revised based on the comments from page 4-52, Section 4.4.2.

None of the mitigation measures listed in the traffic section of the DSEIR provides for reasonable contributions to the regional impacts on traffic from the proposed El Toro commercial airport.

Section 4.5 Air Quality

Page 4-94, Mobile Source Impacts. The Air Quality section for Mobile Source Impacts has based its calculation on 5,410 daily vehicle trips, the DSEIR traffic section states a calculation of 6,222 daily trips, while the Traffic Report in Appendix E of the DSEIR states a daily trip calculation of

8,340, a total difference of 35%. Therefore it would appear that the air quality calculations are underestimated. Any CEQA calculations that differ by a factor of 10%, let alone 35% or more, cannot be considered similar and therefore, the Air Quality analysis should be updated with the proper information before certification by the Planning Commission.

Page 4-110; It appears that the applicant has chosen to utilize the project related vehicle trips from the previous noise study prepared for 318 units (EIR 561), rather than updating EIR 566 to reflect more than double the number of units associated with the manufactured housing project. This study should be updated with the proper information prior to certification of the EIR.

Page 4-118, Section 4.6.7 indicates that the project in conjunction with proposed mitigation measures would not result in any unavoidable adverse operational impacts. However, the EIR fails to analyze the noise impacts the project would have, at buildout, on the surrounding religious organizations to the north and south of the site.

Section 4.6 Noise

Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the noise impacts from the reuse of the El Toro Marine Corp Air Station as a commercial airport or the noise from traffic associated with the commercial airport. Once this information has been included in this DSEIR, this document should be recirculated for public review.

Page 4-102, Baseline Noise Levels. The Noise section of the DSEIR provides a baseline discussion of the current impacts from the El Toro MCAS fly-overs which exist at present, but the impact section of the EIR fails to identify potential CNEL contours as a result of the base reuse plan as an active commercial airport.

Page 4-103, the first paragraph discusses an area of proposed open space as the project location where the 62 dB CNEL contour falls. This may have been true for the previous EIR 561, however, page 7 of the noise study provided in Appendix G states that the 62dB CNEL location is in an area of proposed commercial development. The proper location of the 62 dB CNEL should be verified prior to EIR certification.

Technical Error: Page 4-103, first paragraph, last sentence: The DSEIR incorrectly uses the 62 dB CNEL as "over productive". Correct terminology from the Noise Study, page 7, first paragraph: the use of 62 dB CNEL is "overpredictive".

Page 4-103, third paragraph, states "Depending upon future site re-use, aircraft noise may or may not be an important issue." **The aircraft noise from a commercial airport at El Toro <u>will be an important issue.</u>** Nowhere else in the DSEIR is the El Toro MCAS reuse discussed or incorporated by reference. No commercial aircraft noise impact analysis is provided. The DSEIR should include project related noise impacts as a result of the El Toro reuse plan as a commercial

airport and traffic related impacts. Once this information has been included in this DSEIR, the document should be recirculated for public review.

Page 4-103, fourth paragraph indicates that individual fly-over events may be noise intrusive and mitigation has been provided. However, neither the baseline discussion, impact analysis nor the mitigation measures in the DSEIR include mitigation for a multiple fly-over commercial airport.

Section 4.7 Biological Resources

The Planning Commission should be aware of a note that was included on the preliminary grading plans, that indicates: "Upon issuance of the grading permit by the County, the County will inform the USFWS of the issuance of this permit and any related activity that may potentially involve a CSS "take" resulting from the associated grading activities". This note on the grading plan takes the mitigation monitoring responsibility out of the hands of the County and impermissibly transfers it to the developer and its grading contractor. The note, a copy of which is attached, is an attempt to sidestep the need for coordinating the CDFG and USFWS permits prior to issuance of the grading permit.

No grading permit should even be considered for issuance unit after the gnatcatcher study has been completed per USFWS protocol. Under the Federal Endangered Species Act, all "take" must be accommodated regardless if a recorded tract map is involved. This is a grading permit level of detail EIR, and thus, the studies included should reflect CEQA Guidelines Section: 15146: "The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." (i.e. grading plan permit). Section 15146 (a) states: "An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy". If USFWS decides that project modifications or on-site mitigation is required, then the final tract map will have to be changed any way.

Between the time when EIR 561 and EIR 566 were both prepared, there seems to have been a change in the vegetation communities on the site, or the biology reports are inconsistent between last year's EIR and this year's EIR. Both EIR 561 and 566 are based on the same site and the same biological study, yet the numbers of plant species have changed without new field work. The only updated biological fieldwork was done April 1996 for the western spadefoot toad. The following discrepancies between the two biological reports prepared for this EIR need to be rectified: EIR 561 indicated 119 plant species where EIR 566 indicates 110; what were the previous other 9 plant species and where are they now?; were any of these 9 disappearing plant species sensitive? EIR 561 indicates 70 native plant species on site, yet EIR 566 indicates 73 native plant species. Were three more native plant species planted in a year or is EIR 566 incorrect? EIR 561 originally indicated 49 non-native species and now EIR 566 indicates only 39 non-native species. Without new fieldwork having been conducted by the consultant, which

biology report is correct? Both Figure 5 in EIR 566 technical appendix and Figure 3 in EIR 561 technical appendix show the same vegetation, yet the vegetation quantities have changed.

Page 4-126, Amphibians. This section states that "No amphibians ere observed during surveys of the site", yet Exhibit No. 50 on page 4-122 lists the Western Spadefoot Toad as present. This discrepancy should be corrected.

Page 4-125, Ephemeral Ponds. The section states that "All of the ephemeral ponds were artificially created a number of years ago..." Given the geological conditions of frequent landslides in the area, these wetlands could have been "slump" or "slope" ponds that underwent human modification at a later time. Further information is needed in the DSEIR regarding the origin of these wetlands.

Page 4-148 of EIR 566, Coastal California Gnatcatcher, indicates that no gnatcatcher survey has been performed with USFWS protocol. Specific surveys for presence or absence must be performed at this level of detail for this construction stage in the project. Combined with the disturbing note on the grading plans, the County will lose the ability to monitor any mitigation for the CCG. In order for this EIR to be deemed adequate under CEQA Guidelines Section 15126 (c), the focused CCG survey must be performed prior to certification of this EIR.

Page 4-148, Raptor Foraging Habitat: Whatever consultant recommended to the developer that project slopes would constitute sufficient raptor foraging habitat did not determine this through any consultation with either CDFG or the USFWS. Consultation on appropriate impact significance should be reflected in this DSEIR prior to certification.

Page 4-151, Section 4.7.6, commences its discussion on mitigation measures by stating as a "given" that there is supposedly no ability on the part of the County to "deviate from the final recorded tract map." However, no legal or factual support is given for this statement, and it appears to be directly at odds with CEGA Guidelines Section 15041 which provides that the "lead agency for a project has the authority to require changes in any or all activities involved in the project in order to lessen or avoid significant effects on the environment." If this statement, which appears to be an excuse for not doing a complete mitigation analysis, is based on some unstated legal assumptions about the rights of the developer, then this analysis should be explained in detail in DSEIR 566 to let the public know why CEQA is not being complied with fully.

Page 4-153, Mitigation Measures SC 7-1 through 7-7 and measures 7-11 through 7-14 would appear to be of no value in light of the note placed on the preliminary grading plans. In addition, although EIR 561 provided the mitigation plans as a component of the EIR, DSEIR 566 only provides mitigation in the form of conditions to prepare mitigation plans in the future. The level of detail of the mitigation measures should be commensurate with the level of detail in a recorded tract map. Therefore this EIR does not adequately satisfy CEQA Guidelines Section 15126 (c) requirements at this time. Gathering further information and complying with resource agencies in

the future is not proper mitigation. Biological mitigation for ACOE and CDFG coordination may change the development plan, which would then require a revised EIR.

Page 4-153, Mitigation Measure 7-2 states that a 1603 application has been submitted to CDFG. What is the status of the application? Has CDFG acknowledged receipt of the application? Was the application deemed complete by CDFG? What additional information did CDFG ask for? This future mitigation would hold more credence as a CEQA mitigation measure if more detail were known about the 1603 permit for this project. CDFG has a very limited staff and processing of the permit may take upwards of nine months to a year or more to complete. Is the County going to wait a year for the 1603 permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow the site to be radically altered prior to the issuance of the 1603 permit?

Page 4-153, Mitigation Measure 7-3 states that the applicant will obtain the necessary individual or nationwide permit... According to Page 4-146, second paragraph, the biological consultant states that an individual permit will be necessary. The mitigation measure should accurately state the proper permit necessary. As with the 1603 permit, has the applicant submitted an application for a 404 permit? Has the ACOE acknowledged receipt of the application? Was the application deemed complete by the ACOE? What additional information did the ACOE ask for? The ACOE has even fewer staff than the CDFG, and processing of the permit may take more than a year to complete. Is the County going to wait a year for the 404 permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow the site to be permanently stripped of sensitive biological resources prior to the 404 permit being issued?

Page 4-153, Mitigation Measure 7-4 states that the applicant is to provide a summary in acres of coastal sage scrub to be impacted, but this has already been stated in Table 30 of the DSEIR. The mitigation measure only serves to lead the reader back to the beginning of the Impacts section of the DSEIR. The mitigation measure should be specific and consistent with the biological consultants recommendation of "The dedication and long-term preservation of 22.9 acres of habitat of Saddleback Meadows, revegetation of 46.5 acres of Veturan-Diegan transitional coastal sage scrub on site and contribution of the Orange County NCCP".

Page 4-153, Mitigation Measure 7-5 states that the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the USFWS. This mitigation measure is misleading because it fails to state what permit is needed. USFWS may impose additional mitigation measures as part of its review process. In order to assure that USFWS mitigations do not conflict with any other measures in the DSEIR, the consultation with USFWS should be conducted prior to certification of the DSEIR. As with the 1603 and 404 permit, has the applicant submitted a request for USFWS consultation or filed an application? Has the USFWS acknowledged receipt of the application? Was the application deemed complete by the USFWS? What additional information did USFWS ask for? The USFWS has the fewest staff of all three agencies, and processing of the permit and consultation may take more than a year to complete. Is the County going to wait a year for the Section 10a permit prior to

issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow clearing and grubbing of the site prior to the 10a permit?

Page 4-154, Mitigation Measure 7-6 could in effect override mitigation measure 7-5, if the Administrator, Planning and Zoning so desired. This mitigation measure should be deleted.

Page 4-154, Mitigation Measure 7-7. If there are additional permits required by the USFWS, the DSEIR should list those specific permits. Consultation with the USFWS, as indicated on page 4-151 last paragraph of the DSEIR, states that input has been received from the USFWS. Why didn't the EIR preparer ask what additional permits may be necessary for native vegetation?

Page 4-155, Mitigation Measure 7-8, F, states that an experienced nursery or other landscape contractor shall care for the transplanted trees for only six (6) months. The biological report states on page 49, second paragraph, **"In order to ensure the success of mitigation, the Project proponent should enter into a five year secured agreement with the County of Orange to cover the Projected cost to install, monitor, and report on the mitigation Project. This agreement will be in the form of a 100 percent bond."** This extremely important mitigation measure is found nowhere in the DSEIR. If the DSEIR does not reflect the recommendations of the expert biologist, then mitigation measure 7-8 F is ineffective and invalid. The DSEIR cannot be certified without amending this measure to reflect the biologist's recommendation.

Page 4-157, Mitigation Measure 7-11 states that the applicant shall provide additional evidence that onsite CSS habitat is not occupied by California Gnatcatchers. The survey for the CCG should be performed now to rule out any occupied habitat. What the mitigation measure is trying to say is that if CCG is found on site, the applicant will be required to file an application for a Federal Section 10(a)(1)(B) permit. If CCG is found, the USFWS will commences their consultation and additional mitigation measure may be imposed by the USFWS. **In order to assure that USFWS mitigations do not conflict with any other measures in the DSEIR, the CCG survey should be performed prior to certification of the DSEIR.** The mitigation measure should accurately state the proper permit necessary. As with the 1603 and 404 permit, has the applicant submitted a request for USFWS consultation or filed an application for a Section 10a permit? Has the USFWS acknowledged receipt of the application? Was the application deemed complete by the USFWS? What additional information did USFWS ask for? The processing of the permit and consultation may take more than a year to complete. Is the County going to wait a year for the Section 10a permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow clearing and grubbing of the site prior to the 10a permit?

Page 4-158, Mitigation Measure 7-12, is not enforceable as a mitigation measure. The mitigation for the wildlife movement corridor should be included as part of the DSEIR for public review. The mitigation measure should list the onsite or off site options for the movement corridor. This measure should be deleted, and an alternative mitigation measure should be provided.

Page 4-158, Mitigation Measure 7-14. This measure in not enforceable as a mitigation measure. The relocation and establishment of a mitigation plan should be included as part of this DSEIR as it was with EIR 561.

Page 4-158, Mitigation Measure 7-15. This measure is not enforceable not does it further minimize impacts with wording such as **"Where possible..."**, "Lighting within development projects adjacent to conserved habitat **"should"** be selectively placed...", ..."lighting from homes abutting conserved habitat **"should"** be screened...", and, "These lighting restrictions **"should"** be incorporated into the project's CC&R's". All of these "should" mitigation will become "shall" upon certification. If the Planning Commission is not sure that it wants to implement these measures, they should either be deleted them or change all "shoulds" to "shalls".

Page 4-159, Section 4.7.7 Unavoidable adverse impacts. Under CEQA Guidelines Section 15126(c) all mitigation must be enforced that will "minimize the significant effects" prior to EIR certification. The comment that the County will issue a letter of insignificance once the Interim Loss Habitat Mitigation Plan is approved has no meaning in terms of CEQA. The public has a right to review the ILHMP prior to EIR certification. Also, the second bullet item under this same section discusses future mitigation. A future survey is not mitigation according to the Federal EPA. This is a recorded tract map and a construction level grading permit application EIR. The biological report in the EIR should be the basis of any biological opinion.

Section 4.8 Aesthetics

Page 4-174. Although aesthetic impacts will remain significant, even after mitigation, the Project Design Feature mitigation measures 8-1 through 8-4 are only standard conditions of approval for any development project. Mitigation measure 8-1 requires public utilities to be undergrounded, but the County would require this "Design Feature" anyway. Mitigation measures 8-2 and 8-3 would only truly be design features if the applicant were required to underground all drainage swales. This is more costly, but in order for these aesthetic mitigation measures to be compatible with the biological mitigation of the manufactured slopes providing rapture foraging habitat, the cost would be justified by both mitigations that would be accomplished.

Page 4-174, Mitigation Measure 8-4 in not enforceable as a Project Design Feature. If the Trabuco Canyon Water District owns the tank site, the District will be responsible for the landscape screening, not the developer or the County. This mitigation measure should include additional monetary compensation to the Water District for additional landscape screening.

Section 4.9 Cultural/Scientific Resources

Page 4-178. The DSEIR makes no attempt to analyze either the direct or indirect environmental impacts of the project on the religious or sacred uses within the potential impact area. In this case,

the potential impact area extends outside of the property boundary. This important issue should be discussed in the DSEIR prior to certification.

Section 4.12 Public Services

Page 4-216, Section 4.12.2, Effects Found to be Insignificant. The EIR preparer should look at this section again. The EIR incorrectly reads, "The Initial Study prepared for the proposed project did **not** identify any (sheriff, fire, education, and library) related effects as **insignificant**". Therefore, all the effects were significant.

Page 4-217, Section 4.12.3, Fire. The 1.4 million-gallon tank was the same quantity tank utilized in EIR 561 for 318 homes. The EIR should reflect the proper fire flow amount for 705 units and the proper tank size or number. New impacts to the tank site will require recirculation of the EIR prior to certification.

Page 4-222, Mitigation Measure 12-4, should be corrected to reflect the proper tank size.

Section 4.13 Utilities and Service Systems

Page 4-235, Water. While the project description indicates the need for a 1.4 million-gallon tank, the Draft EIR Section 4.13.6, does not mention the need to fire flow storage for a 1.4 million-gallon tank. With the inconsistency between the two EIRs, this EIR is not certifiable under CEQA unless the information presented to the Planning Commission is accurate, factual and current.

Section 6.0 Alternatives to the Proposed Project

The EIR has failed to identify an alternative location for this project, and is therefore inconsistent with CEQA. DSEIR 566, without a discussion of an alternative location cannot be certified as adequate. Should the Final EIR for 566 choose to include an alternative location analysis, the EIR should be recirculated with the new information for public review. Section 15126 (B) 2 states that "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR". However disclosure, at this time, of a new location would constitute new information and require recirculation of the DEIR.

ATTACHEMENT

SFC Consultants

RE [redacted] SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN, AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS, AND IS RESPONSIBLE FOR THE PROTECTION OF, AND ANY DAMAGE TO, THESE LINES OR STRUCTURES.

ALL RETAINING WALLS SHOWN ON THESE PLANS ARE SHOWN FOR REFERENCE ONLY, AND ARE TO BE CONSTRUCTED PER SEPARATE PERMIT.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.

HWORK QUANTITIES

	FILL
740 C.Y	60,030 C.Y
360 C.Y	797,990 C.Y
	113,100 C.Y.
	11,880 C.Y
3,000 C.Y.	983,000 C.Y.

CK MEADOWS RD.

MAP DATE IDENTIFIER
DATE OF LATEST CHANGE TO THIS MAP

1-13-95

DATE: 4-1-94

R J.A.G.

J.A.G.

PRELIM. GRADING PLAN
FOR
TRACT NO. 10692

LOTS: 1-203, 229-244, 280-288, 315-378
708-710, 714, 715, 717, PORT. A, C, D, E, F, G, & L.

SHEET **1** OF 13 SHEETS

BM 1286-1, 2.502 GEODMS 12on
ELEV. # 300.017

50. STOCKPILING AND/OR VEHICLE STAGING AREAS SHALL BE LOCATED AS F PRACTICABLE FROM DWELLINGS.

51. EROSION CONTROL DEVICES WILL BE MODIFIED AS NEEDED AS THE PROJ PROGRESSES. AND PLANS OF THESE CHANGES SUBMITTED FOR PLAN CHECK AS REQ

52. THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE WITHIN TH IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER.

53. A GUARD WILL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY EXCEEDS TWO (2) FEET.

54. MITIGATION:

A) PRIOR TO THE ISSUANCE OF A GRADING PERMIT, A NOTE SHALL BE PLACED ON THE GRADING PLAN WHICH STATES THE FOLLOWING:

ON MARCH 25, 1993, THE U.S. FISH AND WILDLIFE SERVICE (USFWS) LISTED THE CALIFORNIA GNATCATCHER AS A "THREATENED SPECIES". THE FEDERAL ENDANGERED SPECIES ACT (ESA) PROHIBITS ANYONE FROM "TAKING A GNATCATCHER, WHICH INCLUDES KILLING, HARMING, OR HARASSING THE SPECIES. NO COASTAL SAGE SCRUB VEGETATIVE RESOURCES SHOULD BE REMOVED WITHOUT APPROVAL FROM THE USFWS. ISSUANCE OF THIS PERMIT BY THE COUNTY OF ORANGE DOES NOT MEAN OR IMPLY THAT THE PROPOSED DEVELOPMENT IS IN COMPLIANCE WITH THE ENDANGERED SPECIES ACT. IT IS THE RESPONSIBILITY OF THE PROPERTY DEVELOPER TO CONSULT WITH AND RESOLVE A "TAKE" ISSUE WITH AND OBTAIN THE APPROPRIATE PERMITS FROM THE USFWS.

IT SHOULD ALSO BE NOTED THAT ANY PERSON WHOSE ACTIVITIES RESULT IN A "TAKE" IN ACCORDANCE WITH SECTION 9 OF THE ESA MAY BE SUBJECT TO CRIMINAL PROSECUTION AND THAT A "TAKE" MAY RANGE FROM REMOVAL OF COASTAL SAGE SCRUB SUCH AS CLEARING, GRUBBING, MOWING, FUEL MODIFICATION, DISCING, TRENCHING, OR OTHER RELATED CONSTRUCTION ACTIVITIES, TO THE OPERATION OF EQUIPMENT OR THE MERE PRESENCE OF CONSTRUCTION PERSONNEL IN CLOSE PROXIMITY TO COASTAL SAGE SCRUB RESOURCES THAT MAY CONSTITUTE HARASSMENT THROUGH THE GENERATION OF DUST, NOISE, ETC.

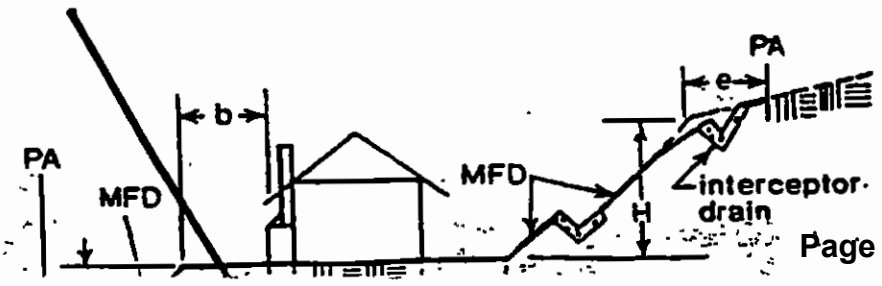
UPON ISSUANCE OF THE GRADING PERMIT BY THE COUNTY, THE COUNTY WILL INFORM THE USFWS OF THE ISSUANCE OF THIS PERMIT AND ANY RELATED ACTIVITY THAT MAY POTENTIALLY INVOLVE A CSS "TAKE" RESULTING FROM THE ASSOCIATED GRADING ACTIVITIES. ALL QUESTIONS AS TO WHETHER OR NOT YOUR PROJECT MAY BE IN VIOLATION OF THE ENDANGERED SPECIES ACT SHOULD BE DIRECTED TO THE U.S. FISH AND WILDLIFE SERVICES AT (619) 431-9440.

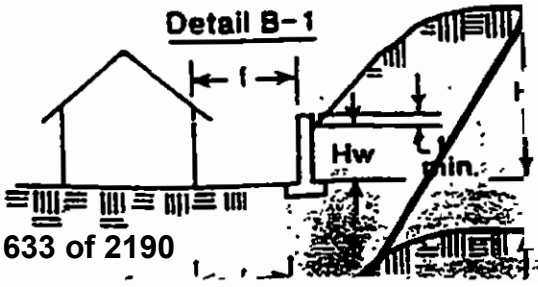
BIOLOGICAL RESOURCES

B) All grading activities shall be avoided within the drip line (outer edge of the tree canopy) of any oak tree designated for in-place preservation.

C) Storage of heavy equipment or building materials shall not occur within 25 feet of any oak tree area.

D) Temporary fencing shall be placed around individual trees and oak woodlands to be preserved for the duration of construction. Fencing shall be placed at the drip line of oak trees and shall not constitute an impediment to wildlife circulation.





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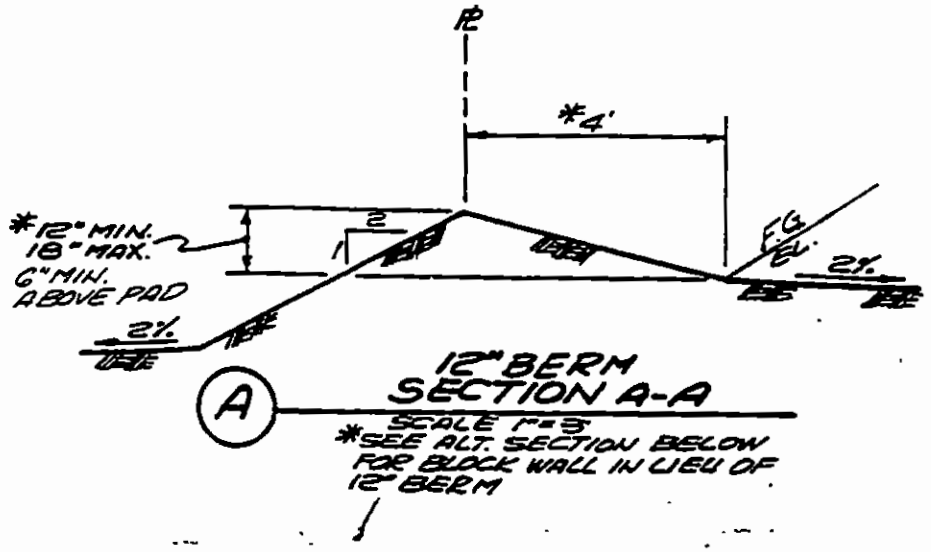
54. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.

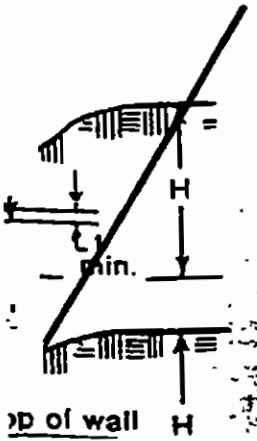
55 PERMITTEE SHALL MAINTAIN CONSTRUCTION SITE IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS, WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS, ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS, FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS, FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPER CHLORINATED POTABLE WATER LINE FLUSHING.

DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

56. PERMITTEE MAY DISCHARGE MATERIAL OTHER THAN STORM WATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT. CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD, CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE, OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302

57. DEWATER OF CONTAMINATED GROUNDWATER, OR DISCHARGE CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.





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Environmental & Project Planning

August 22, 1997

Mr Raymond H.C. Brantley
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Santa Ana, CA 92702-4048

VIA HAND DELIVERY

Re: Saddleback Meadows/Comments on DSEIR 566

Dear Mr. Brantley.

As you know, our firm represents the Vedanta Society of Southern California (the "Society") which, for over five decades, has owned and maintained the Ramakrishna Monastery (the "Monastery") in an area of Trabuco Canyon which is immediately adjacent to the southeastern portion of the Saddleback Meadows property (the "Property"). On behalf of the Society, and pursuant to the 10-day extension of time granted in the August 12 letter which I received from Tom Mathews, Director of the Orange County Planning & Development Services Department (the "Department"), we are submitting written comments on Draft Subsequent Environmental Impact Report No. 566 ("DSEIR 566" or the "DSEIR").

A. Regrettably, The Society Is Compelled To Submit Its Comments Under Protest.

The Society must note for the record that it is submitting its comments under protest because of the Department's refusal to accommodate the Society's request, as set forth in my letters of August 6 and 8, 1997, that the Society, and all members of the public, be provided with adequate time to comment on DSEIR 566 *after* the grading plans and the grading plan review which are the subject of Grading Application GA960048 (the

"Grading Application") have been made a part of DSEIR 566 and the DSEIR has been recirculated for public comment. Because of the Department's decision to deprive the public of access to the very documents upon which the Grading Application is based, i.e., the 40-scale grading plans and the detailed review of those plans by the soils engineer of record, the geotechnical consultants engaged by the Society to comment on DSEIR 566 have been thwarted in their efforts to fully and properly assess the adverse environmental impacts and feasible mitigation measures associated with the rough grading operations for the construction of the 705 units of manufactured housing which were supposedly authorized by Final Tract Map 10692 (the "Tract Map").

If we were at the general plan amendment stage or the zone change stage in the development of the Saddleback Meadows project (the "Project"), the Society could better understand the Department's decision not to make the grading plans and the grading plan review available to the public in connection with a CEQA analysis of the Project, but, since we are now at the "point of no return" in the Project and the scrapers and bulldozers are about to be unleashed to permanently alter the topography, and to forever destroy the environmentally sensitive features of the Property, there seems to be no justification for withholding from the public *any* of the important documents that the County of Orange will necessarily rely upon in deciding whether to grant the Grading Application and to issue a grading permit to Aradi, Inc., dba California Quartet (the "Applicant").

The Department need look no further than the front cover page of DSEIR 566 to see that "Grading Application GA960048" is the subject of the DSEIR. Accordingly, if the Department intends to recommend that DSEIR 566 be certified by the Planning Commission and be used as the environmental documentation to support the granting of the Grading Application, then -- in equity and in good conscience -- the Department must "play fair" and share with the public all of the documents needed to fully assess the impacts and mitigation measures associated with the Grading Application.

Although more will be said about this point below, suffice it to say at this juncture that the Society will attempt to do the best that it can with the limited information which the Department has made available to date. Most of the soils reports referenced in DSEIR 566 are of little help in analyzing the grading impacts of the Project because they are based upon a 318-unit project which was *not* approved by the Planning Commission or the Board of Supervisors and which does *not* involve the same extent of mass grading, or the same remedial grading improvements, required for the construction of the 705-unit manufactured housing Project which is the subject of the Grading Application. Moreover, the *only* soils report in the DSEIR which addresses the 705-unit Project expressly concedes that it is *incomplete* and that the most important aspects of the remedial grading operations for the 705-unit Project will be analyzed *later* in connection with the grading

plan review that is to "accompany' the Grading Application. (*See*, DSEIR 566, Appendix D, p. 4, ¶ 4.)

Without being allowed access to the basic documents that will, in fact, "accompany" the Grading Application, it is hardly fair that the Society, or any other members of the public, be required to submit comments on the adequacy of the environmental documentation prepared to evaluate the effects of the Grading Application However, the Society will endeavor to do so without waiving its objections to the inherent unfairness of the CEQA review process that is currently being conducted by the Department. The Society urges the Department to reconsider its decision to push ahead with the review of DSEIR 566 without allowing the public to see documents which are crucial to the approval of the Grading Application. Indeed, the Society believes that the fairness and disclosure problems which presently exist can easily be corrected by simply recirculating DSEIR 566 after all of the grading plans and the grading plan review have been made a part of the DSEIR or, at the very least, have been incorporated by reference in the DSEIR and have been made available for public review.

Of course, the Society also believes that, if the Department persists in its refusal to make important project documents available to the public, a court of law would certainly find that the Department's actions in this regard were exceedingly unfair and not at all in keeping with either the letter or the spirit of CEQA.

B. <u>DSEIR 566 Fails To Comply With The Specificity Requirements Of CEQA Guidelines Section 15146</u>.

The Society will give credit where credit is due and will commend the Department for determining that a Subsequent EIR under CEQA Guidelines section 15162 would have to be prepared and certified before the Grading Application submitted by the Applicant in December 1996 could be approved

In requiring the preparation of a Subsequent EIR, the Department was not only complying with the dictates of the Foothill/Trabuco Specific Plan (*see*, FTSP, p. III-20, § III.D.3.2c), but it was also adhering to the legal analysis set forth in the landmark case of *Day v. City of Glendale* (1975) 51 Cal.App.3d 817. In *Day*, the Court of Appeal held that a grading permit application is a "project of mixed ministerial-discretionary character [which] should be treated as a discretionary project" for purposes of CEQA review, especially in cases in which the applicable grading code affords staff a great deal of discretion in issuing, or conditioning the issuance of, a grading permit (51 Cal.App.3d at pp 823-824).

However, having correctly determined that a Subsequent EIR should be prepared, the Department must now ensure that the environmental documentation prepared by the Applicant's consultant fully complies with the requirements of CEQA and the State CEQA Guidelines which govern the preparation and review of a construction-level EIR. Unfortunately, in its present form, DSEIR 566 does not comply with these requirements because it postpones for *future* analysis the specific details of the very activity which it was supposedly prepared to address, i.e., the rough grading of the Project.

There can be no doubt that DSEIR 566 was supposed to analyze the impacts and mitigation measures relating to the Grading Application. As stated on page 2-8 of DSEIR 566, the Department determined, on December 16, 1996, that "a Subsequent EIR is required to evaluate the effects of the *grading application*." (Emphasis added.) In addition to what is stated in the DSEIR, Mr. Mathews also confirmed in his August 12 letter to me that the Applicant's grading permit application was "the *initiating activity* which resulted in the determination that Draft EIR 566 be prepared." (Emphasis added.)

Since it is clear, therefore, that the Grading Application was the project approval which *initiated* and *necessitated* the preparation of DSEIR 566, it is only logical that the DSEIR analyze the impacts of the rough grading operations not in mere general and conceptual terms, but in the *specific* and *detailed* terms that CEQA requires. CEQA Guidelines section 15146 is very explicit on this point and requires far more specificity than is evidenced in DSEIR 566. As stated in section 15146, "[a]n EIR on a construction project will necessarily be *more detailed* in the *specific effects* of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the *effects of construction* can be predicted with greater accuracy." (Emphasis added.)

CEQA Guidelines section 15146 further provides that the degree of specificity required in an EIR must correspond to "the degree of specificity involved in the underlying activity which is described in the EIR." What this means with reference to DSEIR 566 is that, since the DSEIR was expressly prepared to evaluate the effects of the Grading Application, the *specific details* of the rough grading activities for the construction of the 705-unit Project must be analyzed in DSEIR 566 In order to do that, of course, the documents which County staff will necessarily review and comment on *before* approving the Grading Application -- which will include, at a minimum, the grading plans and the geotechnical review of those grading plans -- must be made a part of, or at least incorporated by reference into, the DSEIR so that all the detailed information that is available to the County is likewise made available to the public through the CEQA review process.

C. **DSEIR 566 Fails To Comply With The Technical Detail Requirements Of CEQA Guidelines Section 15147.**

In the letter which I sent to you on August 8, 1997, a copy of which is attached as Exhibit "A" hereto and is incorporated herein, the point was made that both California case law and the provisions of CEQA Guidelines section 15147 make it abundantly clear that all technical data, maps, plans, diagrams, etc., which are necessary to make a "full assessment" of the environmental impacts of the project being evaluated must be contained in the EIR or in the Appendices thereto. In this case, therefore, since DSEIR 566 was expressly prepared to evaluate the environmental effects of the Grading Application, the 40-scale grading plans and the geotechnical review of those plans should have been made part of the DSEIR *before* it was circulated for public comment.

In his August 12 letter to me, Mr. Mathews disagreed with the above-stated position and stated that "[s]ufficient detailed grading and geotechnical information is available in the Draft EIR." This is simply not the case Indeed, without the grading plans and the geotechnical grading plan review which G.A. Nicoll indicates will "accompany" the Grading Application, the information regarding grading impacts and mitigation measures in DSEIR 566 is entirely inadequate. The only grading plan set forth in the DSEIR is a *conceptual* grading plan which has been photocopied and reduced to such a level that it is completely unreadable. Although the DSEIR makes reference to soils reports that were prepared in connection with DEIR 561, these reports were prepared in connection with a *different* project and do *not* address the same rough grading operations involved in constructing the 705 units of manufactured housing which are the subject of the Grading Application.

The *only* soils report referenced in DSEIR 566 which addressed the 705-unit Project is the one found in Appendix D to the DSEIR. However, that report makes no bones about the fact that it was only "prepared at an EIR level" (whatever that means). In fact, the Geotechnical Environmental Impact Report prepared by G.A. Nicoll & Associates, dated March 14, 1997, expressly states that a "*more detailed evaluation* of the slope stability, including analysis of buttress backcuts and forecuts, individual cut slope buttresses, etc., will be conducted during the 40-scale grading plan review to accompany the grading permit application " (Appendix D, p. 4, ¶ 4, emphasis added.)

The March 1997 report prepared by Nicoll & Associates also states at page 16 that "*[c]omplete details* of the corrective grading will be illustrated in the final geotechnical report for the site, which will be submitted for *grading plan permitting* purposes." This is obviously a concession by the soils engineer of record for the Project that more detailed geotechnical analysis must be performed before the County will be in a position to approve the Grading Application and issue a grading permit to the Applicant.

The question which naturally arises, therefore, is *why* is DSEIR 566 being processed for certification *before* this more detailed information has been made available to the County?

The above question must be answered by the Department and cannot be dismissed as a mere hypertechnical inquiry relevant only to lawyers and judges. Indeed, the question goes to the very heart of the problem facing anyone who tries to determine -- *without* the benefit of the 40-scale grading plans for the entire Project and the geotechnical review of those plans -- how extensive, how costly, and how time-consuming the grading operations for the Project will be.

D. Important Details Regarding The Nature And Extent Of The Proposed Grading Must Be Provided In Order To Determine The Cost And Duration Of The Grading And To Ascertain Whether The Affordable Housing Condition Imposed On The Project Is Still Achievable.

Without knowing certain basic details regarding the nature and extent of the millions and millions of cubic yards of corrective or "remedial" grading that will need to be undertaken in constructing the Project -- such as, for example, the estimated depth of the removals (possibly up to 120' deep in places!), the limits of the backcut that may be left open at any one time without increasing the risk of slope failure beyond the 10% estimated failure rate, the recommended procedures for controlling groundwater encountered during excavation, etc. -- it is *not* possible to develop a reliable estimate of the cost or duration of the grading activities to be performed at the Project site.

According to section 4.2 of DSEIR 566, all of the rough grading at the Project is to be "completed in one *continuous* phase." (DSEIR, at p. 4-22, emphasis added.) Assuming this is true,[1] then all of the persons living in close proximity to the Property, including the monks at the Monastery, the priests and students at St. Michael's Abbey, and the residents of the Hidden Ridge and Portola Hills developments, would be keenly interested in knowing how many months or *years* they could expect to be subjected to the noise, dust, diesel smells, and bare-dirt conditions which would be caused by the veritable army of large earth-moving equipment (e.g., scrapers, dozers, blades, compactors, trucks, etc.) that would have to be deployed at the Project site.

However, without being allowed access to the 40-scale grading plans for the entire Project and the grading plan review containing all of the soils engineer's

[1] After being compelled to make separate arrangements with the Applicant to pay for copies of the 40-scale grading plans relating to the Grading Application, the Society was surprised to learn that the plans made available by the Applicant cover only a *portion* of the Project referred to as "Phase I." This would clearly seem to suggest that the statement in DSEIR 566 that all grading will be completed in one continuous phase is not true.

specifications and recommendations for undertaking the proposed 8.9 million cubic yards of remedial grading work, including the construction of buttresses, shear keys, stabilization fills, and subdrain systems, no grading contractor in Orange County could even begin to estimate the amount of labor, material, and equipment that would be required to rough grade the Project in one continuous phase. In fact, to even project an average daily production rate for the remedial grading operations without knowing the soils engineer's recommendations contained in the grading plan review would be nothing short of wild speculation.

Interestingly, without providing any explanation or breakdown of any kind, the Applicant's consultant has projected an average daily production rate of 30,000 cubic yards per day for the "total project-related grading," amounting to 11.5 million cubic yards. (DSEIR, at p. 4-22.) Based on this projected rate, it has been estimated in DSEIR 566 that all of the rough grading at the Project "would require approximately 18 months to complete" (Id.) To say the least, this estimate strains credulity, and raises serious questions about whether the duration of the Project grading has been purposely understated in the DSEIR.

Since almost 80% of the grading (8.9 out of a total of 11.5 million cubic yards) will consist of slow, costly, and very difficult remedial work to stabilize the proposed slopes by means of landslide shear keys, buttresses, and stabilization fills, it is nothing short of incredible that anyone could even suggest that this work -- which will involve deep slot-cutting that will have to be performed by using special excavating equipment and extremely conservative backcutting procedures -- could be accomplished at anything close to 30,000 cubic yards per day on *average*.

In fact, the Society has engaged the chief estimator of a local grading contracting firm as a consultant, but, without having access to all the grading plans and to the grading plan review to know what the soils engineer will be recommending regarding how the remedial grading work will have to be performed at the Project, he has been unable to formulate any reasonable estimates of the time or cost that will be involved in the grading -- except to note that the 18-month projection set forth in DSEIR 566 appears to be grossly *underestimated*, possibly by a factor of 100% or more.

The reason that it is important to know the approximate *cost* of the rough grading is that, unless one knows what kind of dollars are involved, one cannot determine whether the measures proposed in DSEIR 566 to mitigate the geotechnical hazards at the site (e.g., landslide shear keys, buttresses, stabilization fills, etc.) are truly *feasible*, within the meaning of CEQA section 21061.1, and can be "accomplished in a successful manner within a reasonable period of time, taking into account economic . factors" In other words, the costs of the remedial grading work could turn out to be so prohibitively

expensive in light of the economics of the Project that the mitigation measures proposed in the DSEIR might not be feasible and thus could not be used to "substantially lessen" the significant impacts of the grading, within the meaning of CEQA Guidelines section 15091

Moreover, without knowing the *cost* of the proposed mitigation measures for the grading (i.e., the 8.9 million cubic yards of remedial work), one cannot determine whether the economics of the Project would make it even remotely possible for the Applicant to meet the 66.6% affordable housing requirement which was imposed as a condition of approval on the Tract Map when it was originally approved in 1979 Although there is a passing reference to this requirement on page 4-11 of DSEIR 566, there is no discussion of whether the requirement of selling 470 of the 705 units of manufactured housing "in the affordable range" would be achievable, even in part, considering the cost of developing the Project at today's prices for labor, equipment, and material.

For CEQA compliance purposes, it is imperative that a comprehensive discussion regarding the feasibility of achieving the affordable housing requirement be included in DSEIR 566 and that the document then be recirculated so that the public can see and comment on what evidence there might be, if any, to support any proposed findings or statement of overriding considerations prepared by the Department which attempted to cite the affordable housing component of the Project as a "benefit" which might outweigh the unavoidable adverse impacts of the Project, within the meaning of CEQA Guidelines section 15093.

If the Department were to supply the Society with the information it has requested -- specifically, the 40-scale grading plan for the *entire* Project and the geotechnical review of all the grading plans -- the Society would be willing to perform the economic analysis necessary to determine whether it would be economically feasible, in light of land acquisition and debt service costs, taxes, planning costs, grading costs, and construction costs, for the Applicant to develop 705 units of manufactured housing and to sell two-thirds of these units as affordable housing. This analysis could then be made a part of DSEIR 566 and the document could be recirculated for public review and comment.

E. <u>The Discussion Of Soils Impacts And Grading Mitigation Measures In DSEIR 566 Is Seriously Deficient And Fails To Address Significant Adverse Impacts Which Will Be Caused By The Rough Grading.</u>

To assist it in analyzing and commenting on the "Soils and Geology" section of DSEIR 566, the Society has engaged the services of Kenneth R. King, a registered civil engineer, and John R. Byerly, a registered geotechnical engineer.

Unfortunately, the assistance provided by these two consultants has been severely limited due to their inability to obtain access to the 40-scale grading plans and the accompanying grading plan review.

Despite not being able to review the essential documents relating to the Grading Application, Messrs. King and Byerly have nonetheless found serious deficiencies in how important geotechnical issues have been analyzed, or overlooked, in DSEIR 566. In the hope that DSEIR 566 will be revised and recirculated with the appropriate documentation and a more complete analysis of the true impacts and feasible mitigation measures associated with the rough grading of the Project, the Society is providing the comments received to date from Messrs. King and Byerly.

1. **Comments From Ken King.**

Attached as Exhibit "B" hereto and incorporated herein by reference is a copy of Mr. King's preliminary review of section 4.2 "Soils and Geology" of DSEIR 566. The Society requests that each of the points raised in Mr. King's report be carefully considered and responded to by the Department. In addition, the Society asks that DSEIR 566 be revised and recirculated with the information necessary to address the deficiencies cited in Mr. King's report, particularly with respect to the failure of the DSEIR to analyze the devastating and potentially irremedial impacts which the excavation and dewatering activities will have on the water wells surrounding the Project site.

A recent article appearing in the *Los Angeles Times*, a copy of which is attached as Exhibit "C" hereto and is incorporated herein by reference, supports the concerns raised by Mr. King, for it reports on how the tunneling and dewatering activities for the construction of the Los Angeles subway system have dried up local streambeds and so drastically depleted groundwater resources that once lush plants and vegetation have died off. DSEIR 566 should address whether the environmental parade of horribles discussed in the *L.A. Times* article could occur as a result of the grading activities to be undertaken in constructing the Project. This requires a careful study -- not simply a response to comments -- and the Society requests that it be undertaken *before* any further action is taken to process the Grading Application.

2. **Comments From John Byerly.**

The comments received from Mr. Byerly regarding section 4.2 of DSEIR 566 may be summarized as follows:

(a) Perched groundwater was encountered in the geotechnical investigations on this site at various elevations in many of the test borings by G.A. Nicoll

& Associates and others. DSEIR 566 alludes to "potential dewatering activities." Remedial grading will require the construction of buttresses and extensive shear keys, involving an estimated 8.9 million cubic yards of earth. The excavations for the shear keys will surely intercept water bearing soil and bedrock layers. The potential effect of the disruption of these water bearing layers on water wells located downstream of this project site has not been evaluated in the DSEIR.

(b) During construction, dewatering will remove significant quantities of groundwater and discharge the collected water into existing surface drainage systems The potential impact of the discharge of the removed groundwater, including turbidity, chemical water quality, and potential for erosion and pollution of streams and other riparian areas subject to regulation by state and federal authorities has not been addressed in the DSEIR.

(c) When the shear keys are completed, they will provide a permanent barrier to the lateral transmission of the presently existing groundwater flow. The groundwater will tend to accumulate behind the shear keys, and could surface unless permanent dewatering systems are provided. The analysis of the practicality of permanent dewatering systems, whether passive or requiring well points and pumps, and the long term effect of dewatering system discharge has not been evaluated in the DSEIR.

(d) Approximately 2.6 million cubic yards of excavation is estimated to "achieve planned elevations and profiles." An additional 8.9 million cubic yards of remedial grading is also described, including 7.5 million cubic yards for shear key and buttress construction. The DSEIR concludes that this grading "would not result in any impact on the stability of adjacent properties." While engineering analysis may show that the *completed* grading improvements would not have an adverse impact on the stability of adjacent property, the actual *construction* of these grading improvements may have immense impacts on neighboring properties such as the Monastery and the Abbey. For example, the excavation for shear keys will remove support for existing landslide masses, and will expose landslide shear planes. No discussion of the details of assuring adequate support for the landslides extending onto adjacent properties during the excavation and backfilling of shear keys has been provided in the DSEIR.

(e) Currently, both the Monastery and the Abbey are experiencing ongoing distress due to land slippage. As such, the risk of activating existing landslides and triggering catastrophic land movement on these adjacent properties, particularly during the shear key excavation and backfill process, should be addressed in great detail in the DSEIR.

(f) An average daily grading rate of 30,000 cubic yards per day is projected in the DSEIR. However, it is inconceivable that the excavation and filling for the shear keys and buttresses, which constitute at least two-thirds of the total grading anticipated for the Project site, can be accomplished at a grading rate of anything more than 10,000 cubic yards per day at best. Even at the rate of 10,000 cubic yards per day (which is *optimistic* because, if wet material is required to be top-loaded, then only a rate of 5,000 cubic yards per day could be achieved), the grading for the shear key and buttress construction alone will require 35 months to complete – which is nearly *twice* the duration estimated in the DSEIR. This extended period of grading will also expose the inherently unstable conditions at this site during grading to at least three, if not four, rainy seasons and this has not been accounted for in the DSEIR.

(g) Appendix D of DSEIR 566 ("Geotechnical Environmental Impact Report") presents a brief commentary regarding the geotechnical conditions at this site, and a brief review of recommendations for mitigating and remediating adverse conditions The County of Orange Grading Manual (Board of Supervisors Resolution No 81-1358) and current geotechnical practice require a geotechnical review of 40-scale grading plans to be prepared by the developer's geotechnical consultant. The grading plan review report is required when there is a need for an updated preliminary report. The original preliminary geotechnical investigation was performed in 1994, but was done in connection with a different project that involved less extensive grading. Subsequent investigations have focused on EIR issues, and have not provided the required specificity to analyze the significant effects of the grading, including impact of dewatering during and following construction, slot cutting or staged excavation to assure ongoing support of landslide masses to be stabilized, backcut and forecut slope inclinations, and groundwater water control criteria. The grading plan review report should include all recommendations and geotechnical criteria necessary for a grading contractor to prepare a bid to accomplish the rough grading, and this report should be made part of the DSEIR.

(h) Proposed mitigation measure AM-47 on page 4-33 of the DSEIR references total settlements of 4 to 6 inches or more in some areas, and suggests "the degrees and rates of settlement shall be analyzed during the final design phase." The grading plan review report is an appropriate document for this analysis. However, the report should be prepared now, instead of later, and should be made part of the DSEIR.

(I) A cursory review of the "Phase I" grading plans for a portion of the Project underscores the need for access to the grading plan review. For example, with respect to the proposed buttress excavation near the intersection of El Toro Road and the proposed main entrance road to the Project (Saddleback Meadows Drive), the main question to be answered by the grading plan review is how much back slope can be open at any one time to ensure only the 10% slope failure rate predicted in the DSEIR?

(j) Since the remedial grading quantities are 3.5 times greater than the onsite cut/fill quantities, a large, accessible area will be needed for stockpiling and drying operations, but the grading plans are silent on this point. Will off-site areas be needed for stockpiling and for processing wet material? Another question to be answered is how will the slope rights beyond the limits of grading shown on sheet 4 of 13 of the grading plans be obtained in order to construct the buttress? These questions must be answered before the Grading Application can be approved, and thus they should be addressed in the DSEIR.

In conclusion, the Society sincerely hopes that, in light of the important questions and issues raised above regarding the geotechnical impacts of the Project, the Department will request the Applicant to substantially revise and supplement the "Soils and Geology" section of DSEIR 566 so that the DSEIR can be recirculated for public review and comment once all of the grading plans and the grading plan review have been made part of the DSEIR. At that point, the Society and its consultants will be in a much better position to understand and comment on the true environmental effects of the proposed grading and the feasibility of the mitigation measures designed to lessen such impacts. Thank you in advance for the Department's anticipated cooperation in this regard.

Very truly yours,

Edmond M. Connor

cc John B. Buzas
Frank McGill
William Greiman

VEDANTA\Aradi\Brantley.ltr

CONNOR, CULVER, BLAKE & GRIFFIN LLP
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August 8, 1997

Mr. Nicholas S. Chrisos
Deputy County Counsel
10 Civic Center Plaza, Room 407
P.O. Box 1379
Santa Ana, CA 92702-1379

VIA TELEFACSIMILE
AND FIRST CLASS MAIL
(Fax: 834-2359)

Re: Saddleback Meadows/Draft EIR 566
Request for Re-Noticing of Public Comment Period

Dear Nick:

This will confirm this afternoon's telephone conversation during which you kindly agreed to provide my client, the Vedanta Society of Southern California (the "Society") with an extension of time, to and including next Friday, August 15, 1997, within which to submit comments on Draft EIR 566. You explained that you had consulted with John Buzas and had concluded that, since various County personnel were unavailable to make a final decision on the requests set forth in my August 6 letter to Messrs. Brantley and Greiman, a three-day extension of time seemed to be an appropriate "stop-gap" remedy under the circumstances.

I understand that, when the appropriate personnel are available at the County next week, I will receive a definitive answer to the requests set forth in my August 6 letter. I certainly appreciate receiving the three-day extension, but my firm and the Society's geotechnical consultants still need more time to review the grading plans and the grading plan review before any of us will be in a position to submit comments on Draft EIR 566. Although the public review provisions of CEQA and the State CEQA Guidelines would suggest that we should not have been required to do so, we have already been compelled to make separate arrangements with, and to pay money to, the

developer's agent to obtain the right to review the grading plans for which a grading permit is being sought.

However, even if we were willing to pay additional money for the right to gain access to the grading plan review by the soils engineer of record, we could not do so because that report has not even been completed as of this date. Of course, Appendix D to Draft EIR 566 expressly states that a geotechnical review of the 40-scale grading plans will be prepared to accompany the grading permit application, but, for whatever reason, the grading plan review has not been finalized and is not available for any member of the public to even see it, much less study it in detail. That really puts the Society, and all other members of the public, at a tremendous disadvantage in being able to adequately comment on the Draft EIR.

As I explained to you in my earlier phone message, section 15146 of the State CEQA Guidelines requires that the degree of specificity to be found in Draft EIR 566 must be commensurate with the stage of development that is being evaluated. In other words, since the construction of grading improvements is being analyzed in conjunction with a grading permit application, the *specific* details of the grading, and the impacts and mitigation measures associated therewith, must be addressed in the Draft EIR. Moreover, under section 15147 of the CEQA Guidelines, all technical data, maps, plans, etc., which are necessary to make a "full assessment" of the environmental impacts of the project must be set forth in the appendices to the Draft EIR, and such appendices "shall be *readily available* for public examination." (Emphasis added.)

The California courts have not hesitated to enforce the above requirements by striking down EIRs which have omitted important technical information, even if the information was found to be available from other sources. As stated by our own Fourth District Court of Appeal, "whatever is required to be considered in an EIR must be *in that formal report*; what any official might have known from other writings or oral presentations cannot supply what is lacking *in the report*." (*See, Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 831; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 727.)

As the above authorities indicate, both the grading plans and grading plan review should have been (1) set forth in the Appendices to Draft EIR 566 and (2) readily available to all members of the public during the entire 45-day comment period. Since the County will not issue any grading permit to the developer without the grading plans and the grading plan review having been approved by County staff, these documents should not have been *excluded* from the CEQA review process. However, since these documents were, in fact, omitted from Draft EIR 566 and have never been available at the

County for public review, I think it only fair that the County take quick action to correct these problems.

My proposal would be that the County request the developer to (1) complete the grading plans and the grading plan review and submit them to County staff as soon as possible and (2) revise Draft EIR 566 to not only include these documents as part of the Appendices, but also to adequately address them in Volume I of the EIR. Once the grading plans and grading plan review have been made "readily available" for public review, then a new 45-day period for submitting comments on Draft EIR 56 should be re-noticed.

Again, I apologize for burdening you with this issue in Ben de Mayo's absence, but I sincerely believe, Nick, that fundamental fairness, not to mention the strict dictates of the State CEQA Guidelines, requires the County to remedy the problems which have occurred as a result of the grading plans and grading plan review not having been available for public review prior to the expiration of the comment period on Draft EIR 566. The problems are easily corrected as I have suggested above, and I hope the County will do just that. Thank you for your courtesy and cooperation in doing what you can to make that a reality.

Very truly yours,

Edmond M. Connor

cc John B. Buzas
Frank McGill
Raymond H.C. Brantley
William Greiman

VEDANTA\Aradi\Chrisos.ltr

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Form Ex

KENNETH R. KING
CIVIL ENGINEER

10 East Vine Street ◆ Suite 214 ◆ Redlands, CA 92373
(909) 793-3858 ☎ fax (909) 798-3766

AN INDEPENDENT REVIEW OF THE DRAFT SUBSEQUENT EIR No. 566 FOR THE SADDLEBACK MEADOWS PROJECT

INTRODUCTION:

The purpose for this report is to document the results of a review of engineering and geotechnical data provided in Section 4.2 SOILS AND GEOLOGY of the Draft Subsequent EIR No. 566.

COMMENTS:

1. Page 4-19 Ground Water - Ground water will be exposed as the deep shear keys excavated. Dewatering will be required. The impact of dewatering this land mass has not been addressed. Several issues which must be addressed include the following:
   a. The northerly, westerly and southerly sides of the project site are ringed by water wells. These wells depend on the ground water supplies for their very existence. There is a high probability that the excavation and dewatering of the slide plane shear keys will dry up the surrounding wells. Once drained, these wells will never come back.
   b. Dewatering of the shear keys will become a permanent operation. To avoid build-up of water behind the shear keys, it is mandatory that permanent dewatering facilities be installed. It is presumed that these dewatering facilities will drain to Los Alisos Creek, which is shown as a blue line on the USGS Quad Map. The impact of a permanent alteration to the flow in Los Alisos Creek has not been addressed.

2. Page 4-22 Grading, last two paragraphs - The proposed average daily grading of 30,000 cubic yards/day does not meet the test for reasonableness. The bulk of the 11.5 million cubic yards of earth moving takes place in the slide plane shear key excavations, as much as 120 feet deep, with ground water flowing in from the uphill side. The soil must be excavated, hauled up the slope to the top, spread for drying, re-excavated, hauled to the bottom of the trench, and compacted. If the true rate of earth moving is 12,000 cubic yards/day, the 18 month designated time frame for earthwork becomes 44 months, or 3.7 years. The impact of 3.7 years of heavy earth moving equipment next door to the Ramakrishna Monastery and St. Michael's Abbey has not been addressed.

3. Page 4-29 AM 2-16 - Remedial grading of the buttresses and shear keys is proposed in a simplistic fashion without any consideration of the risks to adjoining properties. Several issues related to remedial grading need to be addressed:
   a. The mere act of excavation a deep trench in front of a slide plane which is already known to be active is potential suicide. Removal of the confining soils may trigger the slide to move. Once the landslide is allowed to move, the slide takes on a life of its own. There is no way for man to stop it.
   b. Back cut failures have been estimated at 10%. This failure rate is not realistic in a deep trench with water bearing strata at numerous locations along the cut face. The magnitude of back cut failures will directly impact the quantity of earth to be moved, the time it takes to complete the grading, and the risk to adjoining properties. A realistic assessment of back cut failures and related consequences must be addressed.

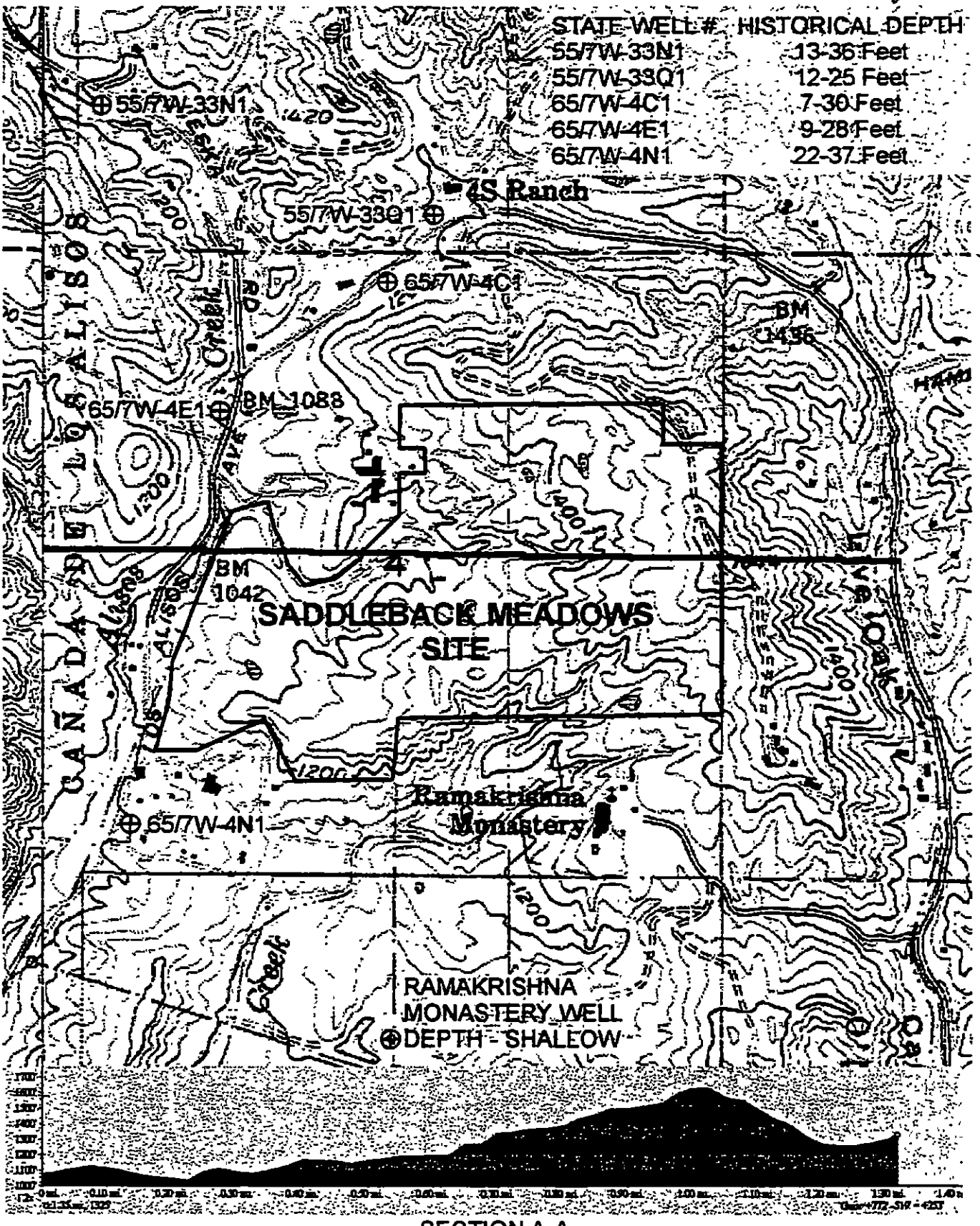
4. Page 4-29 AM 2-18 - The installation of permanent subdrain systems is mandatory at stability fills and shear keys. The consequences of installing these drain systems have been ignored:
   a. The impact on adjoining water wells.
   b. The impact on Los Alisos Creek.

5. Page 4-31 AM 2-32 - Subsidence shall be assumed as ¾ to 1½ inches for grading design purposes. This is in direct conflict with Page 4-33 AM 2-47 which predicts settlements of 4 to 6 inches or more. Settlements of 4 to 6 inches or more are a virtual guarantee for lawsuits.

Kenneth R. King, Civil Engineer

A COMPILATION OF WATER WELL LOCATIONS SURROUNDING THE SADDLEBACK MEADOWS PROJECT

Attachment D



SECTION A-A

COMPILED BY KENNETH R. KING, CIVIL ENGINEER
AUGUST 8, 1997

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LOS ANGELES TIMES

SUNDAY, AUGUST 10, 1997

Attachment D

Tu n eli ng Is Dry' ng Up L.A. Canyo ns, Experts Caution

Subway: Waterfall, streams vanish as MTA mps out water. Agency mits concern but also cites lack of rain.

FRANK CLIFFORD
and RICHARD SIMON
TIMES STAFF WRITERS

LOS ANGELES—Even in Los Angeles, where ocean beaches and snowcapped mountains are part of the everyday landscape, a 50-foot waterfall in the neighborhood is a wonder to behold.

At least it was. The waterfall, which spilled from a rock precipice high over John Chickering's house on Nichols Canyon in the Hollywood Hills, has dried up. So have several streams that watered the canyon and the hills nearby that residents say had run uninterrupted for at least 50 years.

Although it has been a dry year, some fear that the weather has less to do with it than the subway.

The drying up of springs and streams in Nichols Canyon and neighboring hillsides over the last few months, experts say, is evidence that boring subway tunnels through the splintered, porous bedrock of the Hollywood Hills just west of Cahuenga Pass is having a much greater impact on the natural environment than predicted.

For the thousands of people like Chickering living in the verdant hills above the subway route, the loss of the streams is more than a matter of aesthetics. The year-round flow supports deep-rooted trees and plants that retard the spread of fire and bolster the slopes against erosion and mudslides. The lush vegetation also supports deer, coyotes and a variety of smaller animals.

"It was unbelievable," Chickering said. "I looked out of my window one morning, and the falls were no more. The water had stopped. It was like a curse. Then I remembered the subway and what people had been saying about all the underground pumping going on."

As powerful pumps drain the advancing tunnels of unwanted groundwater at a rate of nearly 1 million gallons a day, the water table that fed the waterfall and the streams, as well as the area's exuberant vegetation and wildlife, has dropped as much as 134 feet, officials say.

Pumping has been draining an untapped water source—the Hollywood basin—of up to one-third of its annual capacity. Virtually all the water pumped out of the tunnels winds up in Santa Monica Bay.

The area most affected by the pumping is a stretch of canyons and hillsides between Laurel Canyon and the Cahuenga Pass that includes one of the city's most popular urban parks, 133-acre Runyon Canyon.

The tunneling, which is passing 165 feet to 900 feet under the Santa Monica Mountains on its way from Universal City to Hollywood, has gone more slowly than expected. The boring machines are expected to reach Hollywood this fall.

Late in July, MTA consultants noted "a substantial decrease" in the water flowing from two streams in Runyon Canyon.

Nichols Canyon, where three year-round streams have dried up, is just to the west. The beauty of the area—which has been the subject of paintings by artist David Hockney—has not been lost on MTA officials.

"It's spectacular. The water comes down from two different directions. If you've driven up Nichols Canyon, part of it looks like a rain forest," said James Sowell, the MTA's manager of environmental compliance.

Los Angeles County supervisor and MTA board member Zev Yaroslavsky, who represents the area, points out that some of the streams in the area dry up every year and that this year is an especially dry one.

"We haven't had any rain since January. You can find dry creek beds and brown hillsides all over the Santa Monica Mountains," Yaroslavsky said.

"But some of the problem is undoubtedly due to the tunneling," he added.

Although MTA officials say they aren't sure what is causing the springs and streams to dry up, they are paying to replace a portion of the lost flow with water from the Los Angeles Department of Water and Power.

"You can acknowledge an effect without having any clue as to what the cause is," Sowell said. "We are responding to the community's concerns. They see MTA as the cause. . . . We're attempting to be good neighbors."

Replacing the Flow

In recent weeks, the MTA began tapping into several mains, allowing up to 34 gallons per minute of DWP water to flow into the stream beds and over Chickering's waterfall.

Chickering and his neighbors say the supplemental flow is a thin stream compared to what it was.

"It's enough water to provide an illusion of normalcy," said Nichols Canyon Assn. President Herschel Gilbert. "But it doesn't replenish natural flows, even at this time of year. And if the springs don't come back, these canyons will lose the rich array of plants and animals that make them special."

Unfortunately, there is no record of what the normal flow has been, according to Yaroslavsky's office.

"People are saying everything should be returned to normal, but nobody knows what normal is," said Howard Katz, a land-use lawyer retained by Yaroslavsky to monitor the impact of the tunneling.

The pumping beneath the Hollywood Hills is part of the ongoing dewatering of the subway route that in the past has sucked out as much as 380 million gallons a year.

That's about the same amount of water consumed by 2,300 families in a year.

The loss of that water in a city frequently battling other communities over water rights has not gone unnoticed by state officials, who asked the MTA to look into ways to conserve the water that the agency is pumping into the ocean.

In a study conducted last year, the MTA stated that it would be prohibitively expensive to recycle water into the hills.

Transit officials made up their minds more than a decade ago that tunneling under the Hollywood Hills wouldn't have much of an environmental consequence.

"By confining ground-water control activities to the immediate area of excavation, the Metro Rail project will avoid potential adverse impacts on urban flora caused by lowered water table," said project's environmental impact port.

MTA officials now say that impact from pumping will be t porary and predict that affe stream flows will resume after excavation is done.

But officials also acknowle that some dewatering will cont indefinitely to relieve hydrost pressure on the tunnel walls.

And no one, including the M is certain what the effects of t pumping will be.

Effect on Plants Could Be Severe

But if the water table does rise and perennial streams do come back, the effects on adjacent hills could be severe, cording to a consultant hired b coalition of residents.

The most deeply rooted tr and plants, among them West sycamore, acacia, laurel sumac a

'I looked out of my window one morning, a the falls were no more. . . . Then, I remembered the subw and what people had been saying about all t underground pumping going on.'

JOHN CHICKERING
Lives in Nichols Canyon

California holly—which stabi the steep hillsides—would be ha pressed to survive. In addition, l canyon bottoms that depend year-round stream flows will l the verdure that has made th oases for wildlife.

"The flora which draws its wa from the springs will be sever stressed," said a 1996 report MHB Technical Associates of S Jose.

"Effects could include increa dieback of deep-rooted plants l laurel sumac, which could resul increased erosion, slides and flo ing," said the report. "Mamm and some bird life will eit migrate, diminish in abundanc die."

PUMPING: Streams Drying Near the Subway Tunneling

The study predicted that if the water table was lowered by more than 50 feet, streams in Runyon Canyon and adjacent canyons "would most certainly dry up."

Armed with those findings, the neighborhood coalition sued the MTA to require the agency to conduct another environmental impact report. The suit was settled last year, with the MTA agreeing to take a variety of measures to prevent the underground pumping from harming streams, plants or wildlife.

All along, MTA officials said they could seal water out of the tunnels by using grout to plug fractures in the rock. After the consent decree, the agency augmented the grouting operation, working both ahead of and behind the tunnel-boring machines.

In early March, about nine months after the MTA had begun tunneling under the hills, Chickering first noticed a change in the waterfall that spilled dramatically down a stairway of rocky ledges to a stream flowing to the mouth of Nichols Canyon at Hollywood Boulevard, about two miles south.

By midsummer, the falls, the stream and two tributary streams in Nichols Canyon had dried up.

For the first time, the free-flowing water supply that ran the length of the three-mile canyon had stopped, said Gilbert, who has lived in the canyon for 47 years.

Meanwhile, two canyons away, Vivian Harrison was observing a similar phenomenon. A spring that bubbled out of the ground on her property for the 23 years she has lived there had suddenly gone dry.

MTA May Spend $50,000 a Year

Officials estimate that the MTA will spend about $50,000 a year replacing water that nature used to supply to Chickering's waterfall, Harrison's spring and two other streams.

In addition, the MTA is watching at least 30 other streams in the area. Some are seasonal and dry up every year during the summer and fall.

But the MTA is not promising to monitor springs or supply replacement water indefinitely.

Agency officials say they are hopeful that once the tunneling is finished and the rock walls are thoroughly grouted, there won't be any more need to pump. The drawdown will cease, and with the help of winter rains, springs and streams will be recharged.

"A lot depends on the effectiveness of the grouting program," said Sowell, who conceded that figuring out where to grout is something of a guessing game. "It's a difficult art. It's not a science, by any means."

And what will the agency do if the springs don't return?

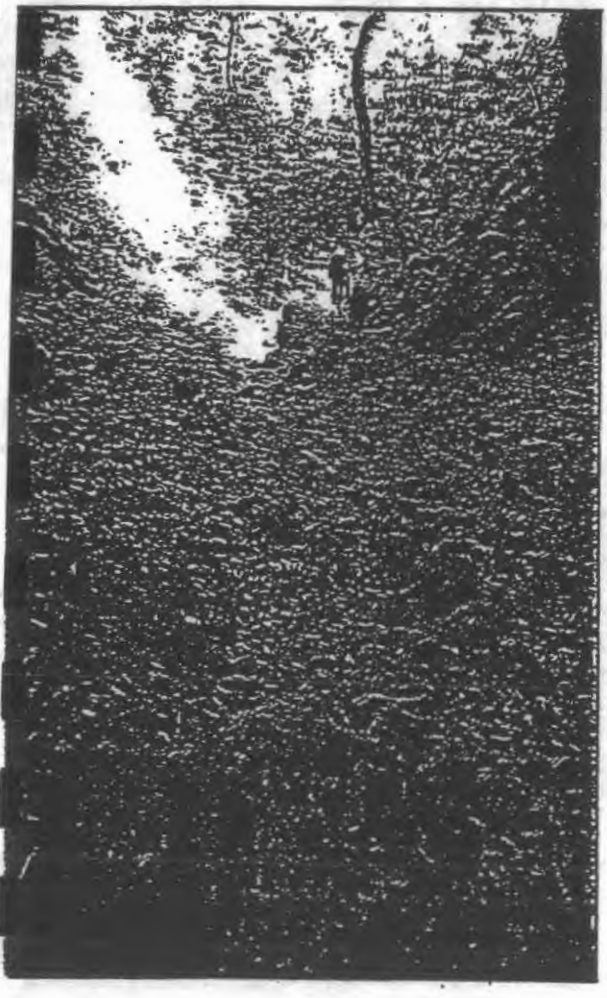
The consent decree requires the MTA to take remedial action for five years. After that, Sowell said, "we have the option to continue to grout over time. What is a reasonable amount of time? We're going to try to get a handle on that."

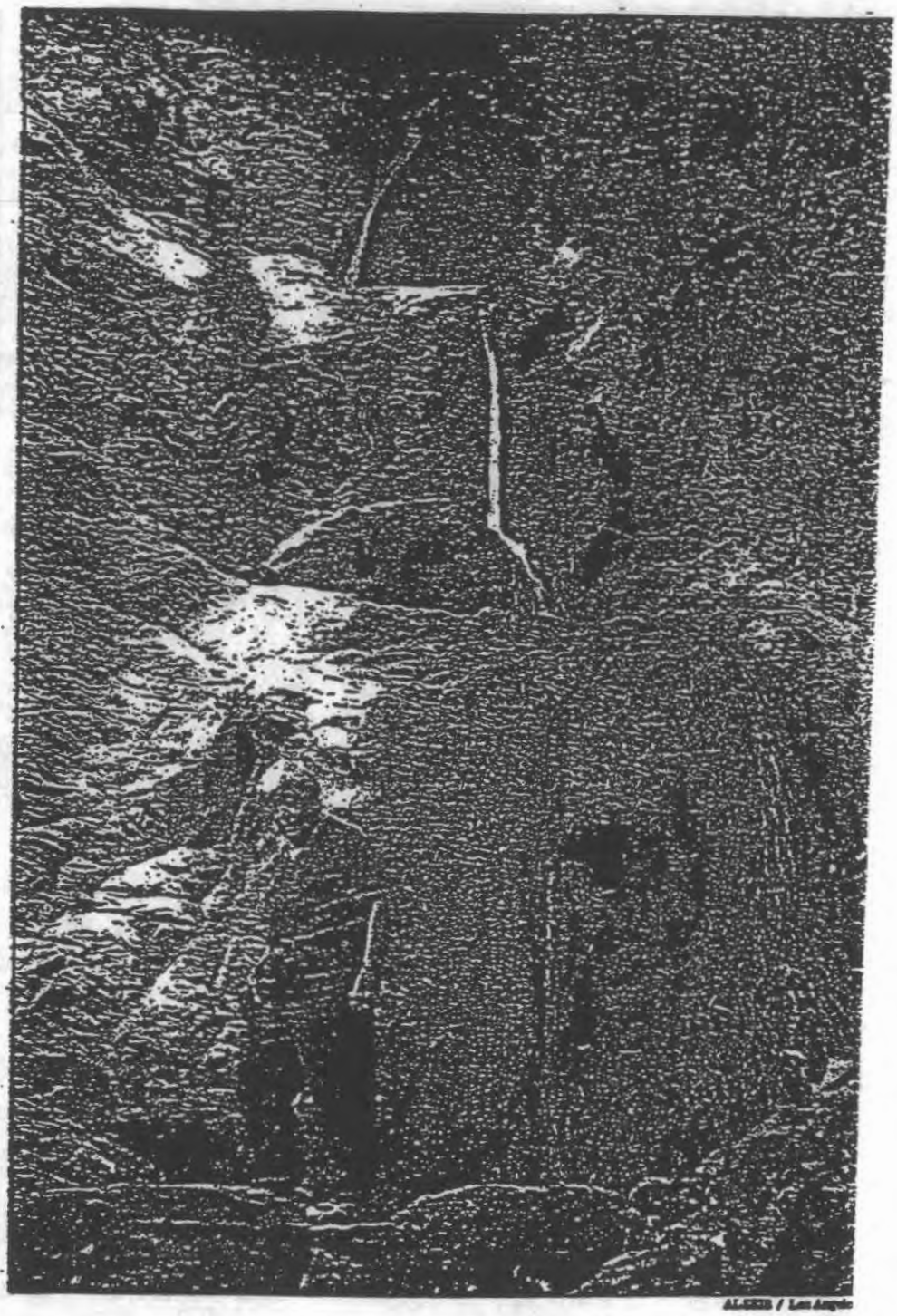
Yaroslavsky took a harder line.

"If the tunnels have to be pumped forever and that causes a problem, why assume we couldn't pump the water back up into the hills? I wouldn't have any reservation in requiring that."

AL SEIB / Los Angeles Times

Ivan Harrison, above, sits at now-dry site of a spring that had flowed freely for at least 23 years. Below, a creek bed in Nichols Canyon that recently went dry.





AL SEIB / Los Angeles

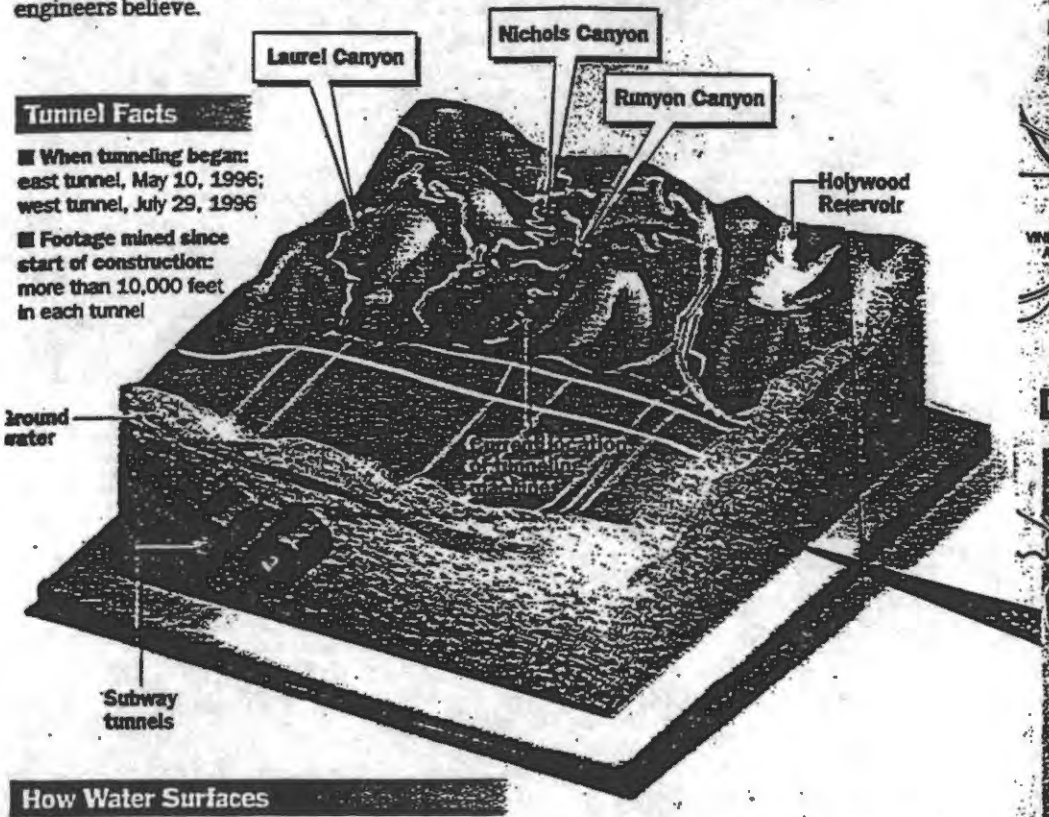
Herschel Gilbert, president of Nichols Canyon Assn., walks near 50-foot waterfall in John Chickering's backyard that had dried up until the MWD began using city water to partially replenish the

Water and the Subway

A drop in ground water levels near construction of the MTA's Red Line is suspected to have caused some natural waterfalls and springs to cease flowing. The MTA is replenishing the falls, pumping fresh water through a pipe at the site. When tunnel construction is finished, ground water levels will return to normal, MTA engineers believe.

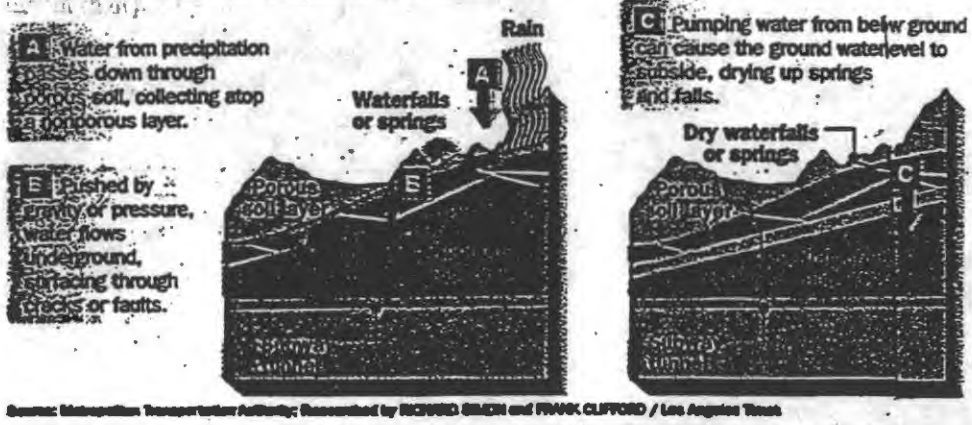
Tunnel Facts

- When tunneling began: east tunnel, May 10, 1996; west tunnel, July 29, 1996
- Footage mined since start of construction: more than 10,000 feet in each tunnel



How Water Surfaces

The MTA is pumping 850,000 to 1.5 million gallons of water per day from its tunnel sites. This water flows into drainage channels and on to the L.A. River, eventually emptying into the ocean. Here's how a change in ground water levels can affect springs:

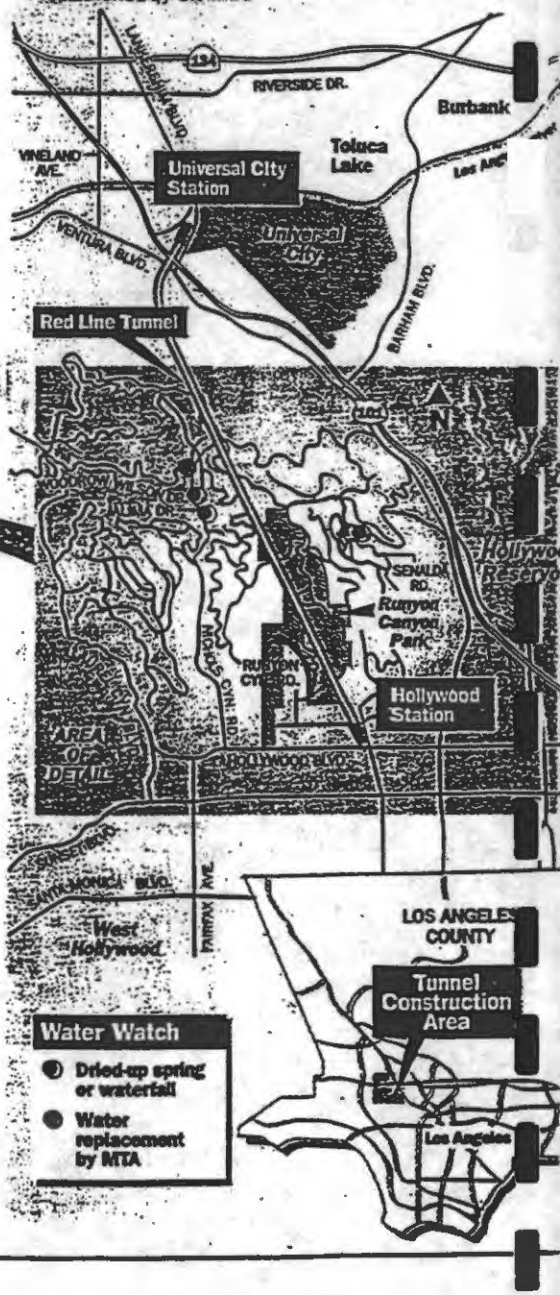


Source: Metropolitan Transportation Authority; Researched by RICHARD GRACIA and FRANK CLIFFORD / Los Angeles Times

The MTA's Monitoring Program

MTA workers had been monitoring 37 streams in the vicinity of tunnel construction and are now wide the monitoring area.

- The level of the water table above the tunnels has drop as much as 134 feet since the start of construction.
- Of the 37 streams and springs under observation, have dried up. In several locations, water is being replenished by the MTA.



County of Orange
Planning & Development Services Department

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SANTA ANA, CALIFORNIA

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TELEPHONE:
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FAX # 834-2771

August 12, 1997

Vedanta Society of Southern California
c/o Connor, Culver, Blake & Griffin, LLP
Mr. Edmond M. Connor, Attorney
2600 Michelson Drive, Ste. 1450
Irvine, California 92612

Subject: Saddleback Meadows DEIR 566 - Request for an Extension of Time

Mr. Connor:

This letter is a followup to your correspondence to offices of the Planning & Development Services Department and County Counsel dated August 6 and August 8, 1997. You have requested a 30-day extension of time to submit comments on Draft EIR 566, based upon your position that the grading plans for the proposed project have not been available for your consideration. You also recommended that a new 45-day review be established for the project with copies of grading plans and grading plan review be provided to the public.

The Planning & Development Services Department has reviewed your request in light of the California CEQA Statutes and Guidelines and County of Orange environmental procedures. This review has led to the following conclusions:

1. Although a grading permit application is the initiating activity which resulted in the determination that Draft EIR 566 be prepared, grading is only a part of the issues addressed in the CEQA document. The County's CEQA action will consider the whole of the action, which in this case, is the development of a 705-unit manufactured housing subdivision and small retail site on the 222± acre site. Other major considerations include the impacts to biological resources and land use compatibility.

2. Sufficient detailed grading and geotechnical information is available in the Draft EIR. On Page 2-5 of Draft EIR 566, the County incorporates by reference, Draft EIR 561. In Section 4.2, Soils and Geology, beginning on Page 4-13 of Draft EIR 566, the discussions are based upon Volume 2 Technical Appendices of DEIR 566, Appendix D, and the extensive Geotechnical Reports and investigations contained in Draft EIR 561, Volume 2 Technical Appendices, Appendix D, which are specifically incorporated into the current project. The Vedanta Society was provided all three volumes of Draft EIR 561 during the circulation of that document.

3. Draft EIR 566, including the geotechnical information from Draft EIR 561, Appendix D of Volume 2, Technical Appendices, meets standard practice of the County of Orange, which requires sufficient grading information for a planning decision. The planning level of detail includes the location of landslides, faults and other geological hazards, the types of soil and proposed grading concepts being considered. The 40-scale grading plans which you request are the level of detail required for consideration by the Subdivision and Grading Services Division. Such detail is premature at this time.

Based upon the foregoing, we feel that sufficient grading information is and has been available to the public to make comments on the adequacy of Draft EIR 566 in addressing the grading impacts related to the proposed project. Therefore, we must deny the request for an extension of time to review Draft EIR 566.

Please note, however, that, in the spirit of cooperation and your special request in light of the contiguity of your client's property with the Saddleback Meadows site, and the apparent time pressures you and your client are suffering, the County will accept and respond to your late comments, provided they are received by our offices no later than 4:00pm on August 22, 1997.

Thank you for your interest and participation in the planning process. If you have questions or need additional clarification regarding this letter, please contact Ray Brantley at (714) 834-3763.

Very truly yours,

Thomas B. Mathews, Director

TBM/RHCB:rhcb

cc: Bill Ross
TPG Management
Nick Chrisos
Jack Golden

County of Orange
Planning & Development Services Department

THOMAS B. MATHEWS
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TRANSMITTED VIA FAX

August 14, 1997

SFC Consultants
Sandra F. Jacobs
26012 Marguerite Parkway
Suite H424
Mission Viejo, California 92692

Subject: Saddleback Meadows DEIR 566 - Request for an Extension of Time

Ms. Jacobs:

This letter is a followup to your communication to the Planning & Development Services Department dated August 5, 1997 requesting an extension of time in which to comment on the subject Draft EIR.

The Planning & Development Services Department feels that sufficient information is and has been available to the public to facilitate informed comments concerning the adequacy of Draft EIR 566. Therefore, we must deny the request for an extension of time to review Draft EIR 566.

Please note, however, that, in the spirit of cooperation and in light of your special interest in the Saddleback Meadows project, the County will accept and respond to your late comments, provided they are received by our offices no later than 4:00pm on August 22, 1997.

Thank you for your interest and participation in the planning process. If you have questions or need additional clarification regarding this letter, please contact Bill Grieman at (714) 834-5175 or Ray Brantley at (714) 834-3763.

Very truly yours,

Ray Brantley

George Britton, Manager
Environmental & Project Planning Division

RHCB/WG:wg

cc: TPG Management
Urban Vision
Nick Chrisos
Jack Golden

County of Orange
Planning & Development Services Department

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(714) 834-
FAX # 834-

TRANSMITTED VIA FAX

August 14, 1997

Saint Michael's Abbey
c/o Rutan & Tucker, LLP
Mr. David B. Cosgrove, Attorney
611 Anton Boulevard
Suite 1400
Costa Mesa, California 92628-1950

Subject: Saddleback Meadows DEIR 566 - Request for an Extension of Time

Mr. Cosgrove:

This letter is a followup to your communication to offices of County Counsel dated August 11, 1997 requesting an extension of time in which to comment on the subject Draft EIR.

The Planning & Development Services Department feels that sufficient information is and has been available to the public to facilitate informed comments concerning the adequacy of Draft EIR 566. Therefore, we must deny the request for an extension of time to review Draft EIR 566.

Please note, however, that, in the spirit of cooperation and in light of your client's special interest in the Saddleback Meadows project, the County will accept and respond to your late comments, provided they are received by our offices no later than 4:00pm on August 22, 1997.

Thank you for your interest and participation in the planning process. If you have questions or need additional clarification regarding this letter, please contact Bill Grieman at (714) 834-5175 or Ray Brantley at (714) 834-3763.

Very truly yours,

Ray Brantley /for

George Britton, Manager
Environmental & Project Planning Division

RHCB/WG:wg

cc: TPG Management
Urban Vision
Nick Chrisos
Jack Golden

County of Orange
Planning & Development Services Department

THOMAS B. MATHEWS
DIRECTOR

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THIRD FLOOR
SANTA ANA, CALIFORNIA

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P.O. BOX 4048
SANTA ANA, CA 92702-4048

TELEPHONE:
(714) 834-4643
FAX # 834-2771

TRANSMITTED VIA FAX

August 14, 1997

Saddleback Valley
Unified School District
Mary Lou Smith
25631 Diseno Drive
Mission Viejo, California 92691

Subject: Saddleback Meadows DEIR 566 - Request for an Extension of Time

Ms. Smith:

This letter is a followup to your communication to the Planning & Development Services Department dated August 13, 1997 requesting an extension of time in which to comment on the subject Draft EIR.

The Planning & Development Services Department feels that sufficient information is and has been available to the public to facilitate informed comments concerning the adequacy of Draft EIR 566. Therefore, we must deny the request for an extension of time to review Draft EIR 566.

Please note, however, that, in the spirit of cooperation and in light of your special interest in the Saddleback Meadows project, the County will accept and respond to your late comments, provided they are received by our offices no later than 4:00pm on August 22, 1997.

Thank you for your interest and participation in the planning process. If you have questions or need additional clarification regarding this letter, please contact Bill Grieman at (714) 834-5175 or Ray Brantley at (714) 834-3763.

Very truly yours,

Ray Brantley

George Britton, Manager
Environmental & Project Planning Division

RHCB/WG:wg

cc: TPG Management
Urban Vision
Nick Chrisos
Jack Golden

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

NO. 566

STATE CLEARINGHOUSE NO. 96121072

SADDLEBACK MEADOWS

RECORDED TRACT MAP 10692

GRADING APPLICATION GA960048

VOL. 3

Orange County
Planning & Development Services Department

June 1997

URBAN VISION

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT NO. 566

State Clearinghouse No. 96121072

SADDLEBACK MEADOWS
Recorded Tract Map No. 10692
GA 960048

Lead Agency:
COUNTY OF ORANGE
Planning & Development Services Dept.
Environmental & Project Planning Services Div.
George Britton, Division Manager

Raymond H. C. Brantley, Chief
Environmental Planning Section
William Grieman, Project Manager

300 North Flower Street
P. O. Box 4048
Santa Ana, California 92702-4048
(714) 834-5550

Project Sponsor:
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San Francisco, California 94104

Environmental Consultant:
URBAN VISION
Carlene Baskevitch, Principal
Eric Ruby, Advisory
1601 Dove Street, Suite 250
Newport Beach, California 92660
(714) 851-3091

June 1997

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APPENDIX D
GEOTECHNICAL EVALUATION

G. A. Nicoll
and Associates, Inc.

March 14, 1997
Project 4816-04

TPG Management, Inc.
1601 Dove Street, Suite 105
Newport Beach, California 92660-2441

Attention: Messrs. Pike Oliver & Michael McKnight

Subject: Geotechnical Environmental Impact Report
for Draft EIR #566 for Final Tract Map 10692
Saddleback Meadows Development
Orange County, California

Gentlemen:

Transmitted herewith is the report for the Geotechnical EIR for Draft EIR #566 for Final Tract Map 10692, Saddleback Meadows Development, Orange County, California.

Included in this report are our findings, conclusions and recommendations regarding the development of the site. Included is a geologic hazards assessment and a summary of principal favorable and unfavorable geotechnical conditions.

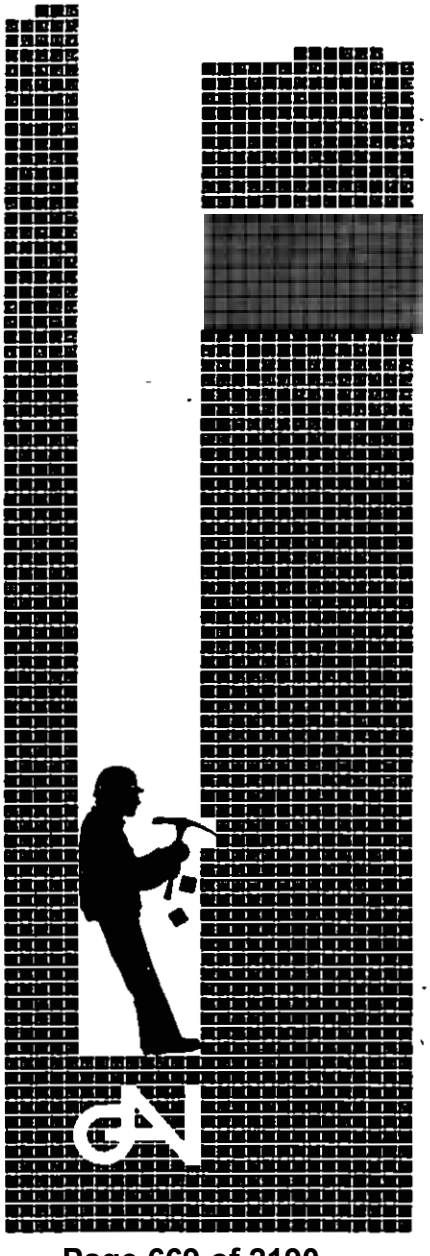
The opportunity to be of service is sincerely appreciated. If you have any questions or if we can be of further assistance, please call.

Very truly yours,

G. A. NICOLL AND ASSOCIATES, INC.

Gerald A. Nicoll
President

GAN/MBU/GDH:cs



Project 4816-04

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GEOTECHNICAL ENVIRONMENTAL IMPACT REPORT
FOR
DRAFT EIR NUMBER 566
FINAL TRACT MAP 10692
SADDLEBACK MEADOWS DEVELOPMENT
ORANGE COUNTY, CALIFORNIA

1. INTRODUCTION

1.1 General

a) This report presents the geotechnical conditions at the Saddleback Meadows Development site and the impact that the subject development will have on the property.

b) The current plan, prepared by Michael Madden Associates, and entitled "Final Tract Map 10692", is a graphically scaled-down representation of the 705 Lot approved Entitled Plan for Tentative Tract 10962, prepared by Hunsaker Associates Irvine, Inc. This plan was utilized as the base map for the *Geotechnical Plan, Plate 1,* for this report

c) This report presents the geotechnical aspects of the site, prepared for inclusion into Draft Subsequent EIR Number 566 for the recorded tract map.

d) The geologic conditions at the site and the proposed major buttress and shear key locations are illustrated on *Plate 1.*

e) Reports and other literature cited during the preparation of this report are presented in *References, Appendix.*

1.2 Summary of Principal Favorable and Unfavorable Conditions

1.2.1 Principal Favorable Geotechnical Conditions

a) At the site, a number of soil and geologic conditions are present that will be favorable to site development.

b) These conditions include:

i) The presence of bedrock materials and large landslide blocks having a low settlement potential;

ii) the presence of sufficient low to non-expansive materials to generate select fills;

iii) the potential for the occurrence of liquefaction is low;

iv) bedrock excavatability is favorable and no blasting is anticipated.

c) Grading east of the Abbey property will produce fill in the gully area which will tend to stabilize the slope on the Abbey property in this area.

d) No known active faults are present at the site and surface rupture during earthquakes is not expected.

e) Planned remedial grading will reduce the potential for the occurrence of earthquake-induced landsliding.

f) The site does not lie within the 100-year flood zone limits.

g) Subsidence at the site due to fluid withdrawal should not occur since no known major ground water aquifers or petroleum reservoirs underlie the site.

h) At the present time, the potential for the occurrence of tsunamis and seiches is non-existent.

i) Site grading will reduce the potential for surficial erosion and the consequential siltation of nearby Alisos Creek.

1.2.2 Principal Unfavorable Geotechnical Conditions

a) A number of unfavorable conditions are present including the presence of unstable landslides, the occurrence of some moderately to highly expansive soils and bedrock units, and the presence of adverse bedding conditions and some ground water.

b) These unfavorable conditions can be mitigated by implementing corrective grading concepts; such as the construction of buttresses and shear keys, selective grading to place expansive materials in the deep fills, the buttressing of cut slopes where necessary, and the construction of canyon subdrains and back drains to minimize or eliminate the affects of ground water.

c) Furthermore, compressible materials will be removed and replaced with compacted fill. Large buttress cuts will be constructed in segments to reduce the possibility of backcut failure.

2. PROPOSED IMPROVEMENTS

a) Proposed improvements for the Entitled Plan include 705 single-family residential lots and accompanying arterial and secondary streets and slope areas. Several park site lots, equestrian trails, and open space areas are planned.

b) It is anticipated that conventional grading methods will be used in the construction of building pads and streets. Remedial grading to produce a stable site is planned, which will include buttresses, shear keys, and stabilization slope.

3. SCOPE

The scope of services we have provided for the preparation of this EIR is outlined below:

a) Review of available geotechnical reports and literature pertaining to the site, and preliminary consultation and planning;

b) Examination of stereoscopic aerial photographs;

c) A geologic site reconnaissance to review the current site conditions;

d) Preparation of a geotechnical plan utilizing the Final Tract Map 10692 as a base map;

e) Preparation of geotechnical cross sections showing the general subsurface structure;

f) Geologic and engineering analyses of accumulated geotechnical data;

g) The preparation of this report presenting our findings, conclusions, and recommendations.

4. QUALIFICATIONS

This report was prepared at an EIR level. A more detailed evaluation of the slope stability, including analyses of buttress backcuts and forecuts, individual cut slope buttresses, etc. will be conducted during the 40-scale grading plan review to accompany the grading permit application.

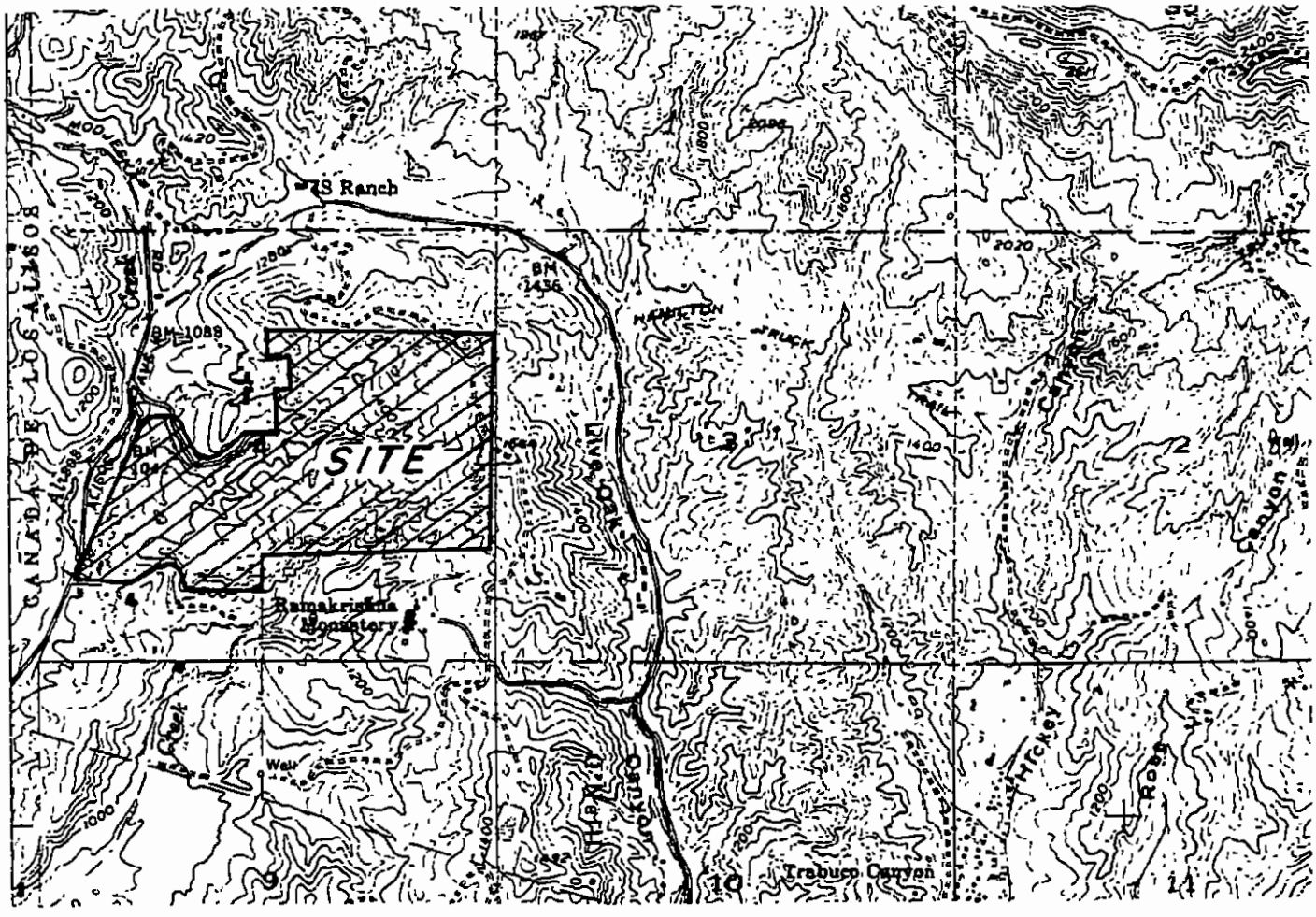
5. SITE CONDITIONS

5.1 Location

a) The project site is an irregularly-shaped 232± acre tract located on the east side of El Toro Road and about 1,000 feet south of Live Oak Canyon Road in the County of Orange, California.

b) The site location is shown on the *Location Map, Figure 1.*

LOCATION MAP



Base Map: USGS Santiago Peak Quadrangle
7.5 Minute Series, 1982

NORTH

2000 0 2000 4000
scale feet

G. A. NICOLL & ASSOCIATES
EARTH SCIENCE CONSULTANTS

Saddleback Meadows	
Date: March, 1997	
Project No: 4816-04	Figure No: 1

BISHOP GRAPHICS/ACCUPRESS
REORDER NO A28843

5.2 Surface Conditions

a) The proposed development is partially cradled within a re-entrant of Canada de Los Alisos. Ridges, ravines and gullies form the dominant physiographic features, providing moderate to high topographic relief. Elevations above Mean Sea Level range from approximately 1,000 to 1,550 feet. Natural slope gradients range from nearly level along some ridge crests and valley bottoms to 1:1 (horizontal:vertical) within deeply incised gullies. The site drains generally toward the west and southwest into Alisos Creek and Oso Creek.

b) Vegetation at the site consists primarily of annual grasses, coastal sage scrub and some areas of oak woodland. An olive tree orchard is located in the central portion of the property. Numerous dirt ranch roads cross the site. At the time of our investigation, the site was utilized for livestock grazing. A more in-depth account of the site vegetation is presented in the biological resources section of the project EIR.

c) Man-made structures on the property include an abandoned ranch house, barn and related structures; several ponds for watering livestock were constructed during the period the ranch was operated, which are still in use for the grazing livestock.

6. GEOLOGY

6.1 Geologic Setting

a) The subject tract is located within Canada De Los Alisos in the low coastal foothills of the Santa Ana Mountains. These hills are part of the Peninsular Ranges Geomorphic Province and are generally underlain by sedimentary bedrock of Tertiary Age.

b) At the site, the bedrock consists of a thick sequence of interbedded, fine- to coarse-grained SANDSTONE and SILTSTONE of the Tertiary Age Vaqueros-Sespe Undifferentiated and Sespe Formations. Ancient to active landslides underlie much of the project area. Recent and older alluvial deposits are confined to the major gullies and Alisos Creek drainage. Topsoil and colluvium mantle the bedrock and landslides throughout

most of the site. Fill soils underlie areas where man-made features, such as roads and berms associated with livestock ponds were constructed. Some pond sediments are present in the cattle ponds. Geologic features of the site are shown on the *Geotechnical Plan, Plate 1, and the Geotechnical Cross Sections, Plates 2-4.*

6.2 Geologic and Soil Units

6.2.1 Sespe Formation (ts)*

The late Eocene to early Miocene Sespe Formation is generally confined to the northwest corner of the tract where it is in fault contact with the undifferentiated Vaqueros-Sespe Formation. These rocks, where they were observed, consisted of red-brown to gray SANDSTONE and interbedded, greenish-gray, Clayey SILTSTONE.

6.2.2 Vaqueros-Sespe Formation, Undifferentiated (Tvs)*

The bedrock underlying the majority of the site exhibits characteristics similar to both the Vaqueros and Sespe Formation. Therefore, these rocks have been classified together as an undifferentiated formation. The rocks consisted of a rhythmic sequence of orange-brown, red-brown, gray to gray-green SANDSTONE and SILTSTONE with thin interbeds of bentonite-like CLAY and less weathered volcanic ash and/or tuff. The bentonitic CLAY beds are generally soft to stiff and plastic in consistency; whereas the SANDSTONE and SILTSTONE units were more often found to be dense and stiff, respectively. Occasionally, fossil-rich beds consisting mainly of broken clam shells were encountered. Some carbonate cementation of sandstone beds has occurred.

*Refers to Geologic Symbols See Key, Plate 1

6.2.3 Landslide Material (Qls)*

a) The site is occupied by an interrelated collection of active and inactive slides. The extent of the slides is comparable to other sites in the general area which have accommodated residential development, such as the nearby Portola Hills site. Between prehistoric and recent times, it appears that there were several episodes of slide movement. The larger, older slides generally failed as block slides, usually along 3 to 12-inch thick CLAY beds. Some of the smaller, more recent slides have failed as rotational-type failures, following oversteepening of the flanks of the major drianage on the site. The characteristics of the observed landslide materials varied from a soft, intensely fractured, sheared and weathered condition to nearly intact, unweathered blocks of displaced, interbedded SANDSTONE and SILTSTONE.

b) The Saddleback Meadows project is characterized by three general generations of landsliding:

i) *Recent Shallow Sliding* are the youngest and shallowest of the landslides and are characterized by active slumps, high moisture contents, depths of less than 50 feet and maximum dimensions of 100 to 400 feet. Their present movements are periodic and small and largely controlled by water content variations. These are most prevalent east of the St. Michaels' property.

ii) *The Intermediate Age and Intermediate Landslides* are approximately 50 to 120 feet deep. They often occur in series and their movements are at a much slower rate than the overlying younger landslides. An example of this is found at the west end of the site, at the existing entrance road, where a landslide has covered some old alluvial deposits *(see Plates 2 and 3)*.

*Refers to Geologic Symbols. See Key, Plate 1.

iii) *The Oldest and Deepest Landslides* are estimated to be between 100 to possibly exceeding 250 feet in depth. The deepest slide surfaces *(see Plates 2-4)* are hypothetical surfaces, based on the projection of shear zones observed in borings at shallower depths and projected along the general geologic structure. These deeper shear zones may have a tectonic origin.

6.2.4 Older Alluvium (Qalo)*

a) Quaternary Alluvium Deposits are present along the lower portions of the slopes located on the west side of the project site. These deposits consist of moist to wet, moderately dense to loose/soft, Silty SAND, Sandy SILT, Sandy CLAY, CLAY and occasional layers of Gravel

b) Disturbed Older Alluvium is present along the east side of El Toro Road at the toe of the major slides. This material consists of disturbed SAND, SILT and CLAY layers containing some Gravel that were mixed with blocks of displaced SANDSTONE and SILTSTONE during landsliding.

6.2.5 Alluvium (Qal)*

Alluvium of recent origin is present in Canada De Los Alisos and its tributaries that enter the project site. The Alluvium consists of interbedded deposits of predominately SAND and SILT with some CLAY and layers of GRAVEL. These soils range from dry to wet and are generally poorly consolidated. Alluvial depths range from less than 1 foot to approximately 12 feet in the tributary drainage, to roughly 20 feet in Canada De Los Alisos which borders the site on the west.

6.2.6 Soil slumps (Ss)*

A number of soil slumps are present. Only the dominant ones are shown on *Plate 1*. These features represent downhill movement and slumping of topsoil, colluvial soil and weathered bedrock material, generally to a depth of 5 to 10 feet.

*Refers to Geologic Symbols. See Key, Plate 1.

6.2.7 Colluvium (Qcol)*

Colluvial deposits cover most of the slopes on the site to average depths of 2 to 3 feet. Within depressions related to landsliding and along the margins of ancient landslides, colluvial depths range from 15 to over 40 feet. The colluvium consists of brown to black, moist to very moist, soft to stiff, Silty CLAY, Sandy CLAY, Clayey SAND and Silty SAND. In some areas, the colluvial deposits contain cobble to boulder-size, cemented SANDSTONE clasts.

6.2.8 Fill (Fill)*

The soil placed in association with the construction of cattle watering ponds and/or access roads on the subject property is considered Uncertified Fill. The method and effort of compaction is not known. Fill placed essentially on St. Michael's Priory property for landslide stabilization is certified fill. However, no distinction between the two types of fill was made on the Geotechnical Plan. Fill is also present beneath the completed portion of El Toro Road.

6.2.9 Pond Sediments (Qp)*

Pond sediments generally consist of dark gray and dark brown SILTS and CLAYS that are moist and soft. Pond sediments on-site probably average 5 feet in thickness.

6.3 Structural Geology/Faulting

a) The project area is bordered on the north and south by generally northwest-trending prehistoric faults. Between these faults, the bedding appears to be warped gently downward, resulting in generally southwest-dipping strata in the central and northern portions of the site and northwest- to northeast-dipping strata in the southern areas; where the bedrock units appear to be warped upwards along a suspected northwesterly-trending fault zone that crosses beneath El Toro Road, forming a synclinal structure at the west end of the site. This synclinal feature, which appears

*Refers to Geologic Symbols. See Key, Plate 1.

asymmetric, probably governed the configuration and direction of movement of the landslides on the subject property. Bedding planes under landslides dip at shallow angles (predominantly 6-17 degrees).

b) The potentially active Cristianitos Fault is situated 1 mile west of the site. Ancient (probably much greater than 10,000 years) movement along this fault and subsequent compressional forces probably attributed to the folding and faulting and bedding plane shearing that is present on the site.

c) Fracturing or jointing was most prevalent in the landslide blocks and in areas within close proximity to faults Nearly vertical open fractures were observed in some borings. Jointing, in general, dips steeply (between 45 and 90 degrees).

d) No evidence for active faulting has been found on the site. No active faults are known to be present near the site.

7. GROUND WATER

a) Ground water occurs on the site as free ground water within the alluvial deposits, and within the deeper sandstone bedrock; and as perched ground water within the various landslide blocks. The amount of ground water observed in several of the borings indicates that some dewatering may be required prior to and during remedial grading. No significant ground water aquifer is present.

b) Planned subdrain systems in buttresses, shear keys and fill keys, and within canyon fills should control any potential ground water level increased from the increase in surface water infiltration from future irrigation.

8. SEISMICITY

a) Seismic risk in Southern California is a well recognized factor, and is directly related to geologic fault activity. Seismic damage potential depends on the proximity to active or potentially active fault zones, and on the type of geologic structures. In relative terms, seismic damage is generally less intense in consolidated formations, i.e., bedrock, than in unconsolidated materials, such as alluvium.

b) In Southern California, most of the seismic damage to man-made structures results from ground shaking and to a lesser degree from liquefaction and ground rupture caused by earthquakes along active fault zones. In general, the greater the magnitude of the earthquake, the greater the potential damage.

c) Seismic hazards at this site are attributed to ground shaking as a result of an earthquake epicentered on a nearby active fault. Ground rupture is not expected to occur on the property as a consequence of the following listed faults.

d) *Figure 2* shows the geographical relationships among the site location, nearby faults and the epicenters of significant occurrences. *Figure 3* gives the seismic parameters affecting the subject site.

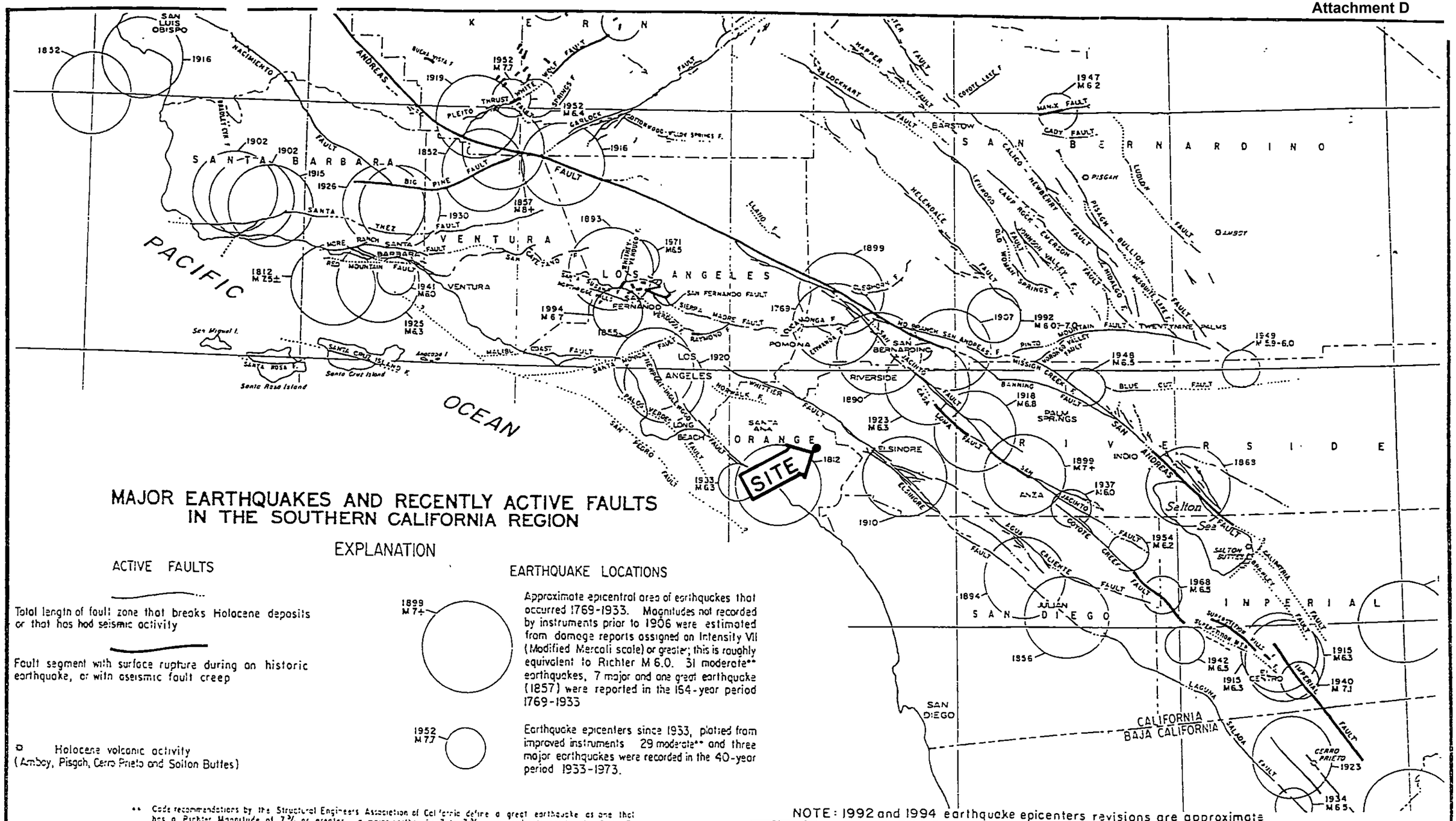
9. GEOLOGIC HAZARDS ASSESSMENT

This section generally follows the guidelines prepared by the California Division of Mines and Geology and most of the conclusions are presented on a subjective scale.

9.1 Seismic Hazards

9.1.1 Ground Surface Rupture

Ground rupture along a fault plane is not expected at the site since no known active faults are present on the site.


SAN LUIS OBISPO
1852
1916
SANTA BARBARA
1902
1915
1926
1812 M7.5±
1941 M6.0
1925 M6.3
VENTURA
1952 M7.7
1952 M6.4
1857 M8+
1930
1893
1571 M6.5
1994 M6.7
1855
1899
1769
1907
1992 M6.0-7.0
1949 M5.9-6.0
1948 M6.5
1947 M6.2
1812
1890
1923 M6.3
1918 M6.8
1899 M7+
1937 M6.0
1910
1954 M6.2
1968 M6.5
1894
1856
1942 M6.5
1915 M6.3
1913 M6.3
1940 M7.1
1934 M6.5
1923
1869
1533 M6.3
SITE
PACIFIC
OCEAN
LOS ANGELES
ORANGE
RIVERSIDE
SAN BERNARDINO
SAN DIEGO
IMPERIAL
CALIFORNIA
BAJA CALIFORNIA
Santa Rosa Island
Santa Cruz Island
Anacapa I.
San Miguel I.
NACIMIENTO FAULT
SAN ANDREAS FAULT
BIG PINE FAULT
SANTA YNEZ FAULT
RANCH SANTA MONICA FAULT
MALIBU COAST FAULT
SANTA MONICA-HOLLYWOOD-RAYMOND FAULT
SAN FERNANDO FAULT
SIERRA MADRE FAULT
NORTH BRANCH SAN ANDREAS FAULT
MISSION CREEK FAULT
BANNING FAULT
BLUE CUT FAULT
WHITTIER FAULT
NEWPORT-INGLEWOOD FAULT
PALOS VERDES FAULT
LONG BEACH FAULT
SAN PEDRO FAULT
CHINO FAULT
ELSINORE FAULT
JULIAN FAULT
SUPERSTITION HILLS FAULT
IMPERIAL FAULT
LAGUNA SALADA FAULT
CERRO PRIETO FAULT
EARTHQUAKE VALLEY FAULT
PINTO MOUNTAIN FAULT
JOHNSON VALLEY FAULT
HELENDALE FAULT
LENWOOD FAULT
CAMP ROCK - EMERSON FAULT
PISGAH - BULLION MESQUITE LAKE FAULT
LUDLOW FAULT
MANIX FAULT
CADY FAULT
EARSTOW FAULT
HARPER LAKE FAULT
COYOTE LAKE FAULT
LOCKHART FAULT
GARLOCK FAULT
WHITE WOLF FAULT
PLEITO THRUST
SURPRISE VALLEY FAULT
SALTON SEA FAULT
SAN JACINTO FAULT
ANZA FAULT
COYOTE CREEK FAULT
EARTHQUAKE VALLEY FAULT
SAN JACINTO
INDIO
Selton Sea
PISGAH
LANDER
OLIVE LAKE FAULT
WOMAN SPRINGS FAULT
LLANO F.
SANTA ANA
PALM SPRINGS
CASA LOMA FAULT
OCEANO F.
POMONA
LENWOOD-LOCKHART-OLD WOMAN SPRINGS F.
BUCK RIDGE F.
SANTA SUSANA F.
SANTA MONICA MOUNTAINS F.
SAN CAYETANO F.
SANTA ROSA F.
SANTA CRUZ ISLAND F.
ANACAPA I.
SAN JACINTO F.
SUPERSTITION MTN. F.
SUPERSTITION HILLS F.
CALIENTE CREEK FAULT
SALTON SEA
CALIPATRIA
SALTON TROUGH
MESQUITE LAKE F.
HIDALGO F.
SAN ANDREAS F.
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SAN ANDREAS F.

TABLE OF SEISMIC PARAMETERS

Potential Causative Fault	Distance from Site to Fault (mi)	Richter Magnitude and Year of Historical Earthquake within 70 mi	Distance from Site to Epicenter of Historical Earthquake within 70 mi.	Maximum Credible Peak Horizontal Ground Acceleration	Maximum Credible Richter Magnitude	Maximum Probable Earthquake for Design Purposes				Site Intensity Modified Mercalli	
						Richter Magnitude	Peak Horizontal Ground Acceleration	*Maximum Repeatable Ground Acceleration (gravities)	Duration of Strong Shaking at Site (sec)	C	P
San Andreas Fault (south of Garlock Fault)	39	1857	N/A	0 11	8 0	7 25	06	N/A	36	VII	VI
San Jacinto Fault	35	6 8 (4/18/18) 6 3 (7/23/23)	36 23	0 09	7 5	7 0	06	N/A	18	VII	VI
Newport Inglewood Fault	16	6 3	22	0 24	7 5	6 5	.13	0 08	18	IX	VIII
Whittier Elsinore Fault	9	6 0 (5/15/10)	14	0 41	7 5	6 25	21	13	18	X	VIII
Sierra Madre/San Fernando Fault	34	6 5 (2/9/71)	63	0 11	7 5	6 5	0 08	N/A	18	VII	VI

*The repeatable high ground acceleration taken as 65 percent of the peak acceleration for sites within 20 miles of the epicenter may be more applicable for design analysis

Saddleback Meadows, Orange County, California

Date: March 1997

Project No: 4816 04 Figure No: 3

G. A. NICOLL *and Associates, Inc.*
Geologic and Soil Engineers

9.1.2 Seismic Ground Shaking

a) Slight to moderate ground shaking is possible at the site if an earthquake occurs on a segment of the active faults listed in *Figure 3*.

b) Some areas of the project site are underlain by unconsolidated alluvium and colluvium which tends to amplify earthquake produced ground motion. However, it is planned to remove these materials within proposed structural areas of the site. Nevertheless, buildings should be designed to resist seismic lateral loads.

c) Ground shaking is not expected to be any more intense than that expected at other nearby developments.

9.2 Secondary Seismic Hazards

9.2.1 Liquefaction

The potential for liquefaction at the site is considered low since the alluvial materials will be removed in structural areas.

9.2.2 Seismically-Induced Landslides

a) In its natural, undeveloped state, the site may experience seismically-induced landsliding in the form of re-activation of the existing smaller, shallower landslides.

b) With the implementation of site grading and corrective grading, the potential for seismically-induced landsliding will be reduced significantly. Corrective grading, in the form of major buttresses and shear keys, will increase the pseudostatic factor of safety of the larger landslides to an acceptable level of 1.1 or greater.

9.2.3 Seismically-Induced Settlement

Strong seismic shaking can cause settlement by allowing sediment particles to become more tightly packed, thereby reducing pore space. Some soft colluvial and alluvial deposits are more susceptible to this phenomenon than others. Artificial fills, if not adequately compacted, may also experience seismically-induced settlement. Since the alluvial and colluvial soils will be removed during grading, and since the proposed fills will be adequately compacted, the potential for seismically-induced settlement is considered low.

9.2.4 Flooding Attributable to Dam/Levee Failure

Since the site is situated well above the adjacent valley bottom and since no dams or levees will be present, the potential for flooding is considered nil.

9.2.5 Seiches and Tsunamis

a) Confined bodies of water may be subject to large, earthquake-induced waves known as seiches. These waves can cause flooding and other related property damage to adjacent areas. Since no large bodies of water are present on or adjacent to the site, the potential for seiching is considered nil.

b) Low-lying coastal areas may be subject to flooding or other damage from large, earthquake-induced ocean waves known as tsunamis. The site is well outside the limits of possible tsunami inundated areas, and therefore, the geotechnical hazard posed by tsunami damage is considered to be nil at the subject site.

9.3 Compressible Soils/Hydroconsolidation

a) Since all alluvial and colluvial soils and compressible landslide materials will be removed during grading at the site, settlement due to compressibility of these soils will not be a consideration.

b) Fill soils will be placed at or slightly above optimum moisture during grading to reduce the potential for the occurrence of hydroconsolidation of the proposed fills.

c) Backcuts in removal areas and for buttress keys will be constructed at gradients of 1.5:1 (horizontal to vertical) to 2:1 in cut areas and areas of planned shallow fills, to reduce the effects of differential settlement.

9.4 Flooding, Erosion, and Sedimentation

a) The site is situated well above the flood plain of the Los Alisos Creek, and therefore, flooding will not affect the site.

b) Erosion and subsequent sedimentation on the site will be reduced because the future development will be constructed so as to improve the drainage of surface water on the site. Sedimentation of Los Alisos Creek will not be increased as a consequence of site development.

9.5 Loss of Mineral Resources

Since no known economic mineral resources are present on the site, the loss of mineral resources as a consequence of development does not apply.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1 General

a) We consider that the site will be suitable for the proposed current development plan, from the geotechnical aspects, provided the recommendations given below and the recommendations presented in the final geotechnical report are implemented

b) Grading will be required as follows:

i) Multiple cuts and fills to achieve planned elevations and profiles, and associated access roadways;

ii) Remedial grading to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills;

iii) Removal (clean out) of all or major portions of landslide graben materials and alluvium and colluvium under the variable thickness fills;

iv) Installation of appropriate subdrain systems within natural drainage courses and within buttress and stability fill keys prior to fill placement;

v) Adequate foundation and slab subgrade conditioning for the proposed development, including overexcavation, capping and measures related to expansive soils;

vi) Achieving suitable surface gradients to preclude ponding anywhere on-site and to control water run-off via paved/closed drainage devices.

10.2 Remedial Grading

a) Remedial grading will incorporate one or more of several devices, including: buttress fills, shear keys, flattening of slopes to dip-slope gradients, surcharge toe fills, stabilization fills, and keys along the daylight cuts. The major buttress keys and shear keys are shown on the *Geotechnical Plan, Plate 1,* and in the *Geotechnical Cross Sections, Plates 2-4.*

b) Softer alluvium, existing fill, colluvium, pond sediments, and compressible landslide debris are all subject to selective removal, either partially or in their entirety. Removals in areas of deep colluvial soils and shallow landsliding may reach depths averaging 40 feet; such as the area south of the olive tree grove.

c) Cut areas which will expose firm landslide materials will require a minimum of 4-5 feet of overexcavation; the replacement of these materials as a compacted fill cap will serve to reduce future infiltration of moisture. Deeper removals may be required, the depths of which will be determined during grading.

d) i) Subdrains and surface drains shall be provided in compliance with the Grading Code.

ii) The lengths, dimensions and locations of subdrains should be finalized on-site during actual grading excavation work, when subsurface conditions become exposed, and the patterns of ground water/seepage flow(s) become apparent. Subdrain locations should be surveyed.

e) Complete details of the corrective grading will be illustrated in the final geotechnical report for the site, which will be submitted for grading plan permitting purposes.

11. LIMITATIONS

a) Soils and bedrock over an area show variations in geological structure, type, strength and other properties from what can be observed, sampled and tested from specimens extracted from necessarily limited exploratory borings. Therefore, there are natural limitations inherent in making geologic and soil engineering studies and analyses. Our findings, interpretations, analyses and recommendations are based on observation, laboratory data and our professional experience; and the projections we make are professional judgments conforming to the usual standards of the profession. No other warranty is herein expressed or implied.

b) In the event that during construction, conditions are exposed which are significantly different from those described in this report, they should be brought to the attention of the Soil Engineer.

The opportunity to be of service is sincerely appreciated. If you have any questions or if we can be of further assistance, please call. The primary investigator and author of this report was Mr. Gerald D. Horton, with principal review by the undersigned.

Very truly yours,

G. A. NICOLL AND ASSOCIATES, INC.

Gerald A. Nicoll
President
CEG 34
(Exp. December 31, 1997)

Mohan B. Upasani
Vice President, Engineering
RGE 2301
(Exp. March 31, 1999)

GAN/MBU/GDH:cs

APPENDIX

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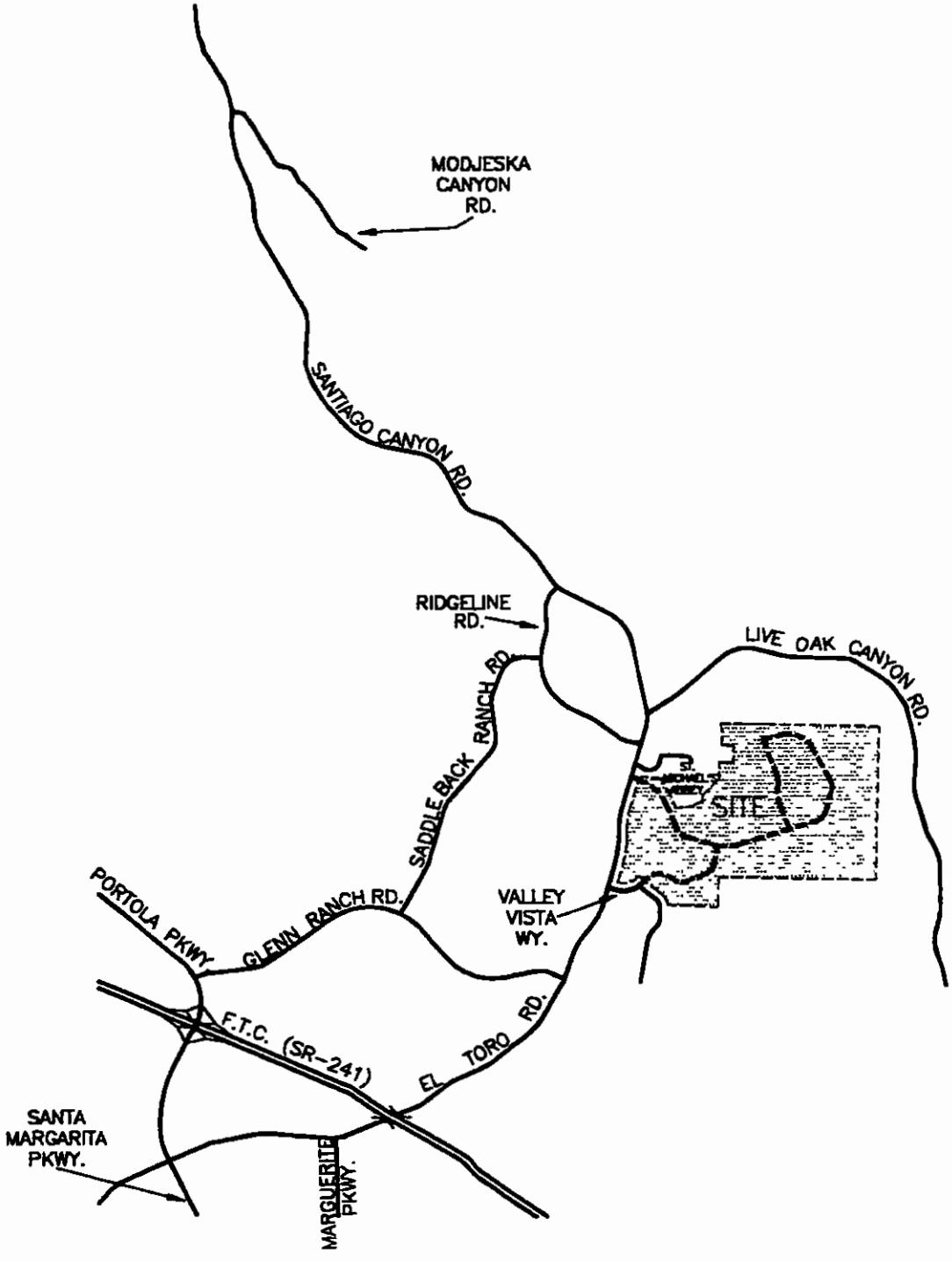
Aerial Photographs

1. Soil Conservation Service; December 12, 1952, Flight AXK-3K, Exposure 113 and 114, scale: 1 inch = 2000 feet.

APPENDIX E
TRAFFIC REPORT

SADDLEBACK MEADOWS (TT 10692)
GROWTH MANAGEMENT/CMP TRAFFIC ANALYSIS (REVISED)
Orange County, California



RKJK
ROBERT KAHN - JOHN KAHN & ASSOCIATES INC.

RKJK
ROBERT KAHN • JOHN KAIN & ASSOCIATES INC.

May 19, 1997

CALIFORNIA QUARTET LTD.
C/O Mr. Mike McKnight
TPG MANAGEMENT, INC.
1601 Dove Street, Suite 105
Newport Beach, CA 92660

Subject: Saddleback Meadows (TT 10692) Growth Management/CMP Traffic Analysis - Revised

Dear Mr. McKnight:

ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC. (RKJK) is pleased to submit the revised Saddleback Meadows (TT 10692) Growth Management/CMP traffic analysis. This report provides a summary of the findings, analysis procedures and evaluation of the proposed project with respect to on-site and off-site traffic impacts pursuant to County of Orange requirements.

This traffic impact analysis report includes an evaluation of traffic for existing conditions, existing plus project conditions, Year 2000 conditions, and Year 2020 conditions. Based upon this review, the project can be accommodated within the planned circulation system, if the recommended improvements are implemented. These recommendations are included in the "Project Recommendations" section of this report.

If you have any questions regarding this study, please do not hesitate to call at (714) 474-0809.

Sincerely,

ROBERT KAHN, JOHN KAIN & ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
ROBERT KAHN
NO 0556
EXP. 12/31/97
TRAFFIC
STATE OF CALIFORNIA

John Kain, AICP
Principal

Carl Ballard
Senior Associate

Robert Kahn, P.E.
Principal

JK:RK:CB:nam/6657
JN:685-95-001
Attachments

SADDLEBACK MEADOWS (TT 10692)
GROWTH MANAGEMENT/CMP TRAFFIC ANALYSIS
ORANGE COUNTY, CALIFORNIA
(REVISED)

Prepared for:

CALIFORNIA QUARTET LTD.
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1601 Dove Street, Suite 105
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Prepared by:

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John Kain, AICP
Carl Ballard
Robert Kahn, P.E.

May 19, 1997

JK:RK:CB:nam/6657
JN:685-95-001

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SADDLEBACK MEADOWS (TT 10692)
GROWTH MANAGEMENT/CMP TRAFFIC ANALYSIS
ORANGE COUNTY, CALIFORNIA
(REVISED)

I. INTRODUCTION AND SUMMARY

A. Purpose of Report and Study Objectives

The purpose of this traffic study is to evaluate the development of the Saddleback Meadows (TT 10692) from a traffic circulation standpoint. The proposed development is included within the unincorporated portion of Orange County.

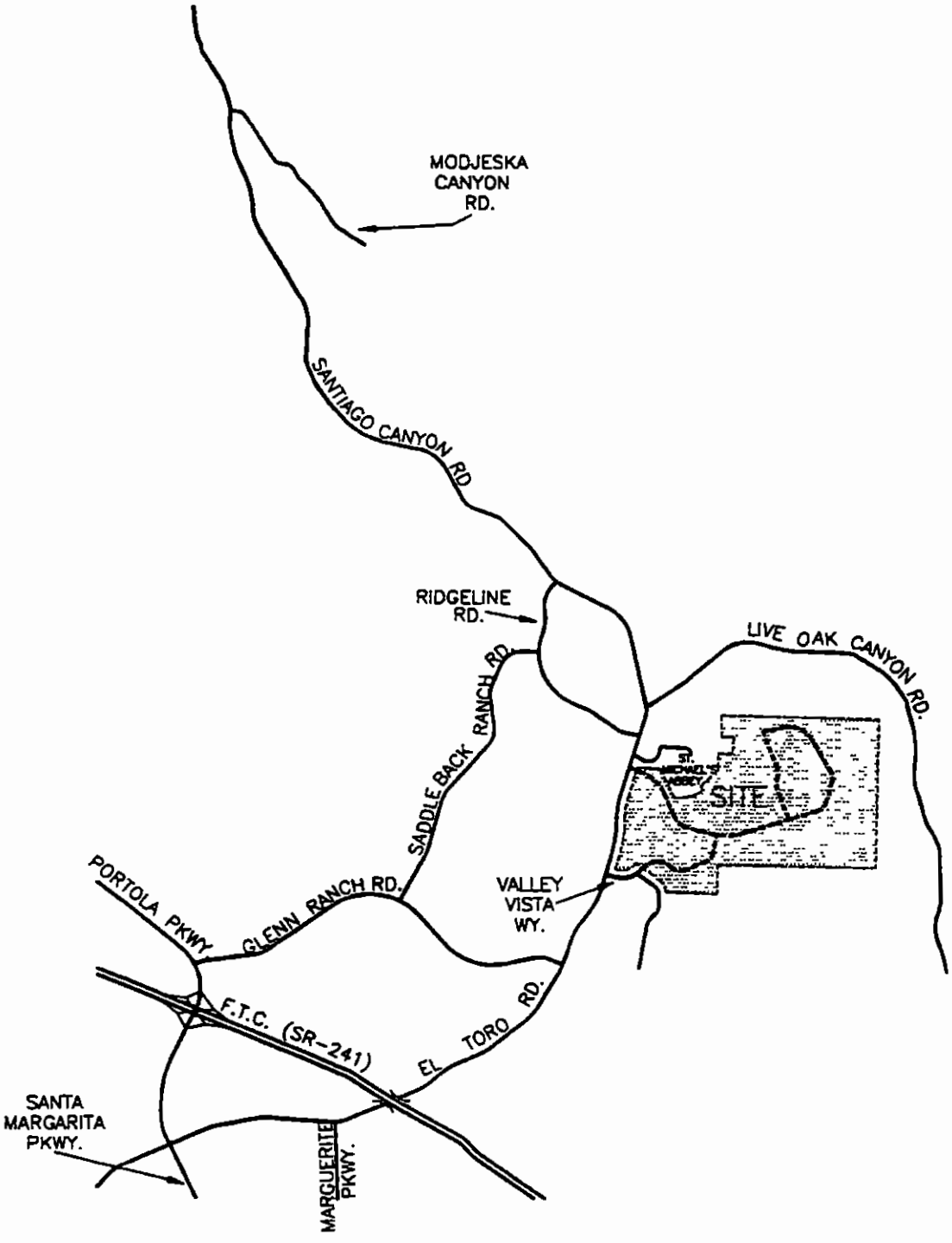
Study objectives include (1) documentation of existing traffic conditions in the vicinity of the site; (2) calculation of existing plus project traffic conditions; (3) evaluation of traffic conditions for the Year 2000; (4) analysis of traffic conditions for Year 2020; and (5) determination of off-site improvements and system management actions needed to achieve County of Orange level of service requirements.

B. Executive Summary

1. Site Location and Study Area

The project site is located east of El Toro Road and south of Live Oak Canyon Road in the County of Orange. Exhibit A illustrates the traffic analysis study area.

EXHIBIT A
LOCATION MAP



885-95-001.75A
SADDLEBACK MEADOWS, Orange County, California

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The study area includes the following intersections:

Santiago Canyon Road (NS) at:

- Modjeska Canyon Road (EW)
- Ridgeline Road (EW)

El Toro Road (NS) at:

- Live Oak Canyon Road (EW)
- Ridgeline Road (EW)
- Valley Vista Way (EW)
- Glenn Ranch Road (EW)

Saddleback Ranch Road (NS) at:

- Glenn Ranch Road (EW)

Marguerite Parkway (NS) at:

- El Toro Road (EW)

Portola Parkway (NS) at:

- Glenn Ranch Road (EW)
- Foothill Transportation Corridor (EW)
- El Toro Road (EW)

2. Development Description

The approximately 223 acre project site is currently undeveloped and does not generate any significant traffic. Proposed uses for the project site include 705 manufactured housing dwelling units and 20,000 square

feet of commercial retail. The site plan for the project is shown on Exhibit B.

3. Principal Findings

The proposed development is projected to generate a total of approximately 8,340 trip-ends per day with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour.

For existing traffic conditions, the intersections in the vicinity of the site are operating at Level of Service "D" or better during the peak hours, as shown in Table 2. Traffic signals appear to presently be warranted at the following intersections (see Appendix "I"):

Santiago Canyon Road (NS) at:

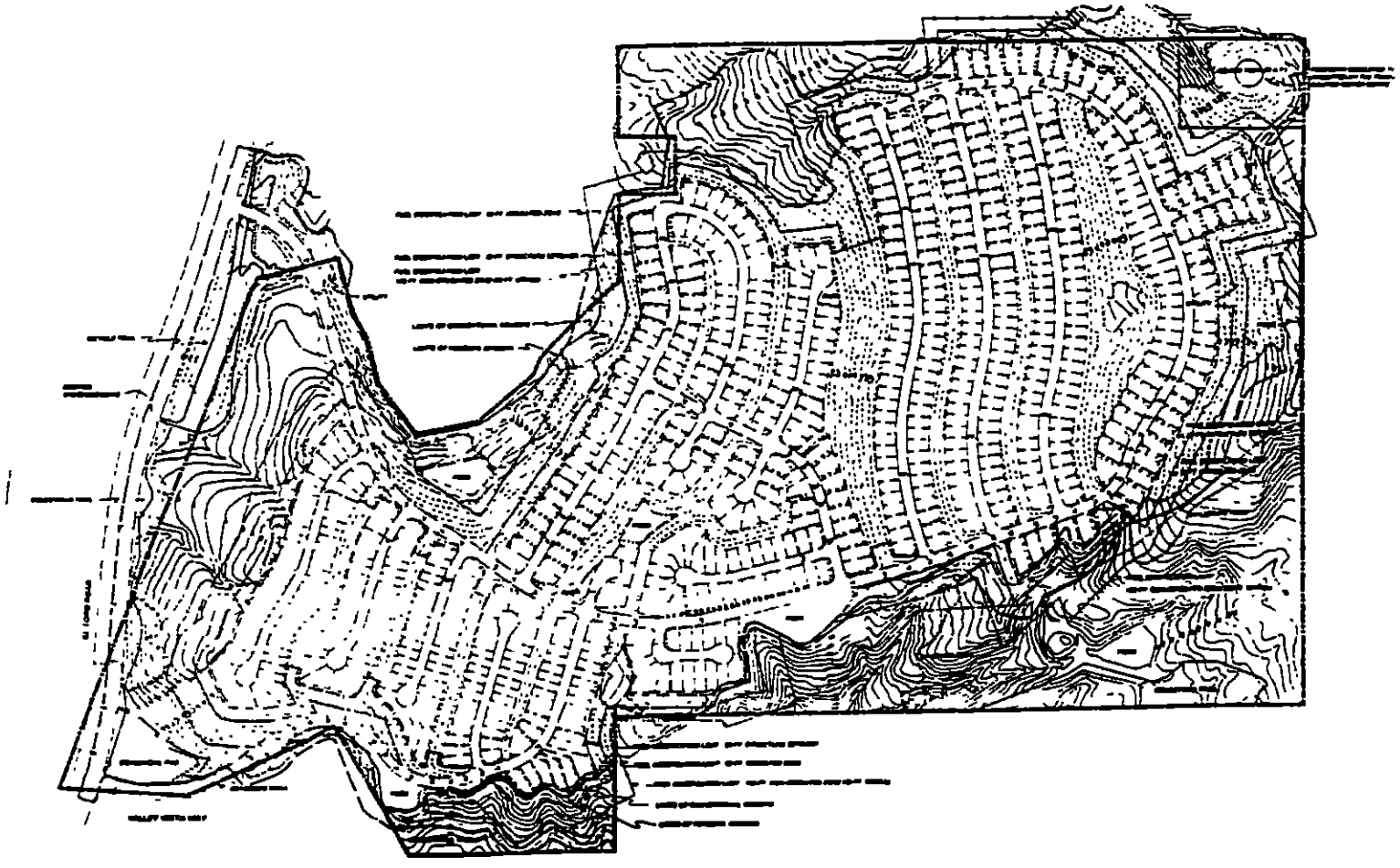
- Ridgeline Road (EW)

El Toro Road (NS) at:

- Live Oak Canyon Road (EW)

For existing plus project traffic conditions, the intersections in the vicinity of the site are projected to continue to operate at Level of Service "D" or better during the peak hours, as shown in Table 7. A traffic signal is projected to be warranted at the intersection of El Toro Road/Project Entrance for existing plus project traffic conditions (see Appendix "I").

EXHIBIT B
SITE PLAN



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SADDLEBACK MEADOWS, Orange County, California

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For Year 2000 traffic conditions, the intersections in the vicinity of the site are projected to operate at Level of Service "D" or better during the peak hours with improvements, as shown in Table 10. A traffic signal is projected to be warranted at the intersection of Santiago Canyon Road/Modjeska Canyon Road for Year 2000 without project traffic conditions (see Appendix "I").

For Year 2020 traffic conditions, the intersections in the vicinity of the site are projected to operate at Level of Service "D" or better during the peak hours with improvements that include the ultimate widening of El Toro Road and Santiago Canyon Road to four through travel lanes (two in each direction), as shown in Table 14.

Pursuant to the County of Orange Growth Management Plan (GMP), segments of Santiago Canyon Road are required to function at a Level of Service "C". Capacity improvements along Santiago Canyon Road will be required in conjunction with future growth to achieve Level of Service "C". The Santiago Canyon Road Major Thoroughfare and Bridge Fee Program has been designed to provide up to $34 million in improvements to Santiago Canyon Road from Chapman Avenue to Live Oak Canyon Road. However, the March, 1994 Project Report for improvements to Santiago Canyon Road indicates that the total cost of improvements is approximately $52.3 million for a "limited project" scenario. To address the difference between the ultimate cost of $52.3 million and the fee program allocation of $34 million, the project should provide an additional contribution beyond the payment of normal fees based upon its traffic share.

4. Project Recommendations

The proposed project will have primary access to El Toro Road. The El Toro Road turn-lane improvements needed at the Project Entrance to serve Year 2000 conditions should be completed in conjunction with development. Secondary access will be provided via an access to Valley Vista Way.

For Year 2000 and Year 2020 traffic conditions with the project and with off-site improvements, study area intersections that are impacted by the proposed development are projected to operate at Level of Service "D" or better during the peak hours. Significant off-site improvements will be needed at study area intersections to accommodate Year 2020 traffic conditions. Improvements are programmed to be implemented through existing funding programs (i.e., Measure "M", existing road fee programs, etc.) and pro-rata participation by individual developments based upon vesting tentative map conditions and existing development agreements. Potential roadway fees for the Saddleback Meadows (TT 10692) development are shown in Table 15.

Both existing traffic patterns and SCTM traffic projections for Years 2000 and 2020 indicate the attraction of Glenn Ranch Road, Portola Parkway, and the Foothill Transportation Corridor (SR-241) for increased traffic volumes in the project study area.

North of the Foothill Transportation Corridor, El Toro Road can accommodate cumulative Year 2020 traffic volumes with the proposed project on four travel lanes divided by a raised or striped median. Exhibit

HH illustrates the alternative cross-sections for El Toro Road in the vicinity of the project. Implementation of a full Major arterial cross-section (six lanes divided) is not needed to serve future traffic volumes. Exhibit HH depicts an alternative section which would provide four travel lanes along El Toro Road divided by a striped median. This alternative section represents a modification of the typical cross-section for a Primary arterial. Appropriate transitions would be required between this cross-section and other modified cross-sections along El Toro Road south of Glenn Ranch Road.

Table 16 depicts the project share of peak hour traffic along segments of Santiago Canyon Road. The residential project peak hour traffic increases range from 5.8 percent during the AM peak hour traffic north of Ridgeline Road, to 9.2 percent of PM peak hour traffic between Live Oak Canyon Road and Ridgeline Road. The commercial project peak hour traffic increases range from 0.2 percent during the AM peak hour traffic north of Modjeska Canyon Road, to 2.5 percent of PM peak hour traffic between Live Oak Canyon Road and Ridgeline Road. Pursuant to the County of Orange Growth Management Plan (GMP) and discussions with Environmental Management Agency staff, it has been determined that the project should contribute a fee beyond the normal Santiago Canyon Road Major Thoroughfare and Bridge Fee Program to address ultimate improvement requirements based upon the project's fare share traffic contribution. The difference between the long range improvement costs for Santiago Canyon Road and the amount estimated to be provided by the Santiago Canyon Road Major Thoroughfare and Bridge Fee Program is approximately $18,300,000. A conservative estimate of the project's residential traffic share is approximately 7.3 percent based

upon the values presented in Table 16. This amounts to a residential project contribution of $1,335,900, which in turn equates to a fee per dwelling unit of $1,895. The project should therefore participate in a supplemental fee contribution to Santiago Canyon Road of $1,895 per dwelling unit. A conservative estimate of the project's commercial traffic share is approximately 1.1 percent based upon the values presented in Table 16. This amounts to a commercial project contribution of $201,300, which in turn equates to a fee per square foot of $10.07. The project commercial area should therefore participate in a supplemental fee contribution to Santiago Canyon Road of $10.07 per square foot.

It is anticipated that the main project access point to El Toro Road will require a traffic signal in conjunction with the first project phase (approximately 208 dwelling units). The project should provide this improvement as well as a southbound left turn lane and northbound right turn lane on El Toro Road at the project entry.

In order to accommodate the anticipated traffic and the potential traffic signal, it is recommended that the entry street to Saddleback Meadows (TT 10692) be designed as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12 foot exiting lanes and two 12 foot entering lanes with a 10 foot median. The Collector cross-section should be maintained for approximately 160 feet where it could then be transitioned to a standard 40 foot wide curb-to-curb width Collector roadway, as shown on Exhibit II.

Traffic signing/striping should be implemented in conjunction with detailed construction plans for the project. Verification of adequate parking should be analyzed for the project site in conjunction with approval of the site plan.

The project should participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Program, Foothill Circulation Phasing Program (FCPP), El Toro Road Fee Program and the Santiago Road Fee Program.

Sight distance at each of the project access intersections should be reviewed with respect to Standard Plan Number 1117 (see Appendix "J") in conjunction with the preparation of precise grading and landscape plans.

II. AREA CONDITIONS

A. Study Area

1. Area of Significant Traffic Impact

Existing roadways in the study area include the Foothill Transportation Corridor (SR-241), Santiago Canyon Road, El Toro Road, Marguerite Parkway, Portola Parkway, Santa Margarita Parkway, Live Oak Canyon Road, Ridgeline Road, Saddleback Ranch Road and Glenn Ranch Road.

Foothill Transportation Corridor (SR-241) has been extended southerly to Antonio Parkway. This corridor, in conjunction with Portola Parkway and Irvine Boulevard, provides a connection from the communities of Coto de Caza and Santa Margarita to the City of Tustin.

Santiago Canyon Road is classified as a Primary (four-lane divided) Arterial highway on the Orange County Master Plan of Arterial Highways (MPAH). It is currently two lanes in the vicinity of the site. Santiago Canyon Road currently accommodates approximately 10,000 to 14,000 ADT in the study area.

El Toro Road is classified as a Major (six-lane divided) Arterial highway south of Live Oak Canyon Road on the Orange County MPAH. It is partially constructed to its Master Plan classification near Santa Margarita Parkway and has yet to be improved (two lanes) in the vicinity of the project site. El Toro Road currently accommodates approximately 13,000 to 23,000 ADT in the study area.

Marguerite Parkway is classified as a Primary (four-lane divided) Arterial highway south of El Toro Road on the Orange County MPAH. Marguerite Parkway in the study area has been fully constructed and currently carries approximately 12,000 ADT in the study area.

Portola Parkway is classified as a Major (six-lane divided) Arterial highway north of El Toro Road to Alton Parkway on the Orange County MPAH. It is fully improved and currently accommodates approximately 20,000 to 22,000 ADT in the study area.

Santa Margarita Parkway is classified as a Major (six-lane divided) Arterial highway on the Orange County MPAH. It has been fully improved to its Master Plan of Arterial Highways classification in the study area. Traffic volumes on Santa Margarita Parkway are approximately 26,000 ADT in the study area.

Live Oak Canyon Road is currently two lanes east of El Toro Road. It currently carries approximately 5,000 ADT in the study area.

Ridgeline Road is currently two lanes west of El Toro Road. It currently carries approximately 1,000 to 2,000 ADT in the study area.

Saddleback Ranch Road is currently two to four lanes in the study area. It currently carries approximately 3,000 ADT.

Glenn Ranch Road has recently been completed to provide a direct connection between El Toro Road south of the project site and Portola Parkway north of the Foothill Transportation Corridor (SR-241). Glenn Ranch Road is classified as a Primary (four-lane divided) Arterial highway

on the Orange County MPAH. It is fully constructed and currently carries approximately 5,000 ADT in the study area.

B. Site Accessibility

1. Area Roadway System

Exhibit C identifies the existing roadway conditions for study area roadways. The number of through travel lanes for existing roadways and the existing intersection controls are identified.

2. Existing Master Plan of Arterial Highways

Existing and future roadways are included in the latest Orange County Master Plan of Arterial Highways (MPAH) and are illustrated on Exhibit D. This exhibit shows the nature and extent of arterial highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan and serves to coordinate future arterial highways between local jurisdictions. Exhibit E illustrates the typical Orange County cross-sections and design capacity values for various roadway classifications.

3. Traffic Volumes and Conditions

Existing average daily traffic (ADT) on arterial highways throughout the study area are shown on Exhibit F. Existing ADT volumes are based upon the traffic data collected by the County of Orange and counts made for RKJK in June, 1995 (see Appendix "B"). Typical daily capacity values for arterial highways are shown in Table 1.

EXHIBIT C
EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

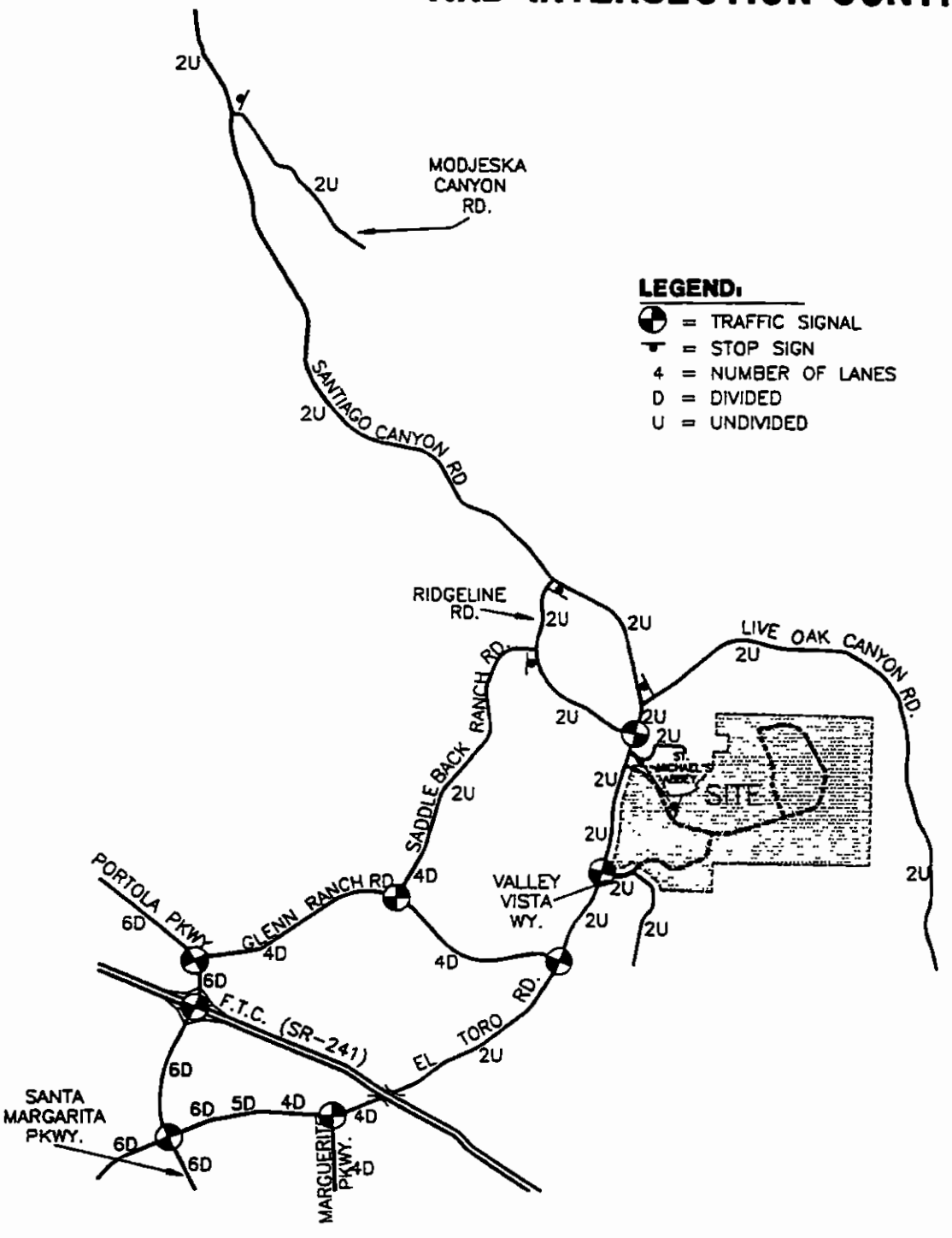

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EXHIBIT D
ORANGE COUNTY
MASTER PLAN OF ARTERIAL HIGHWAYS

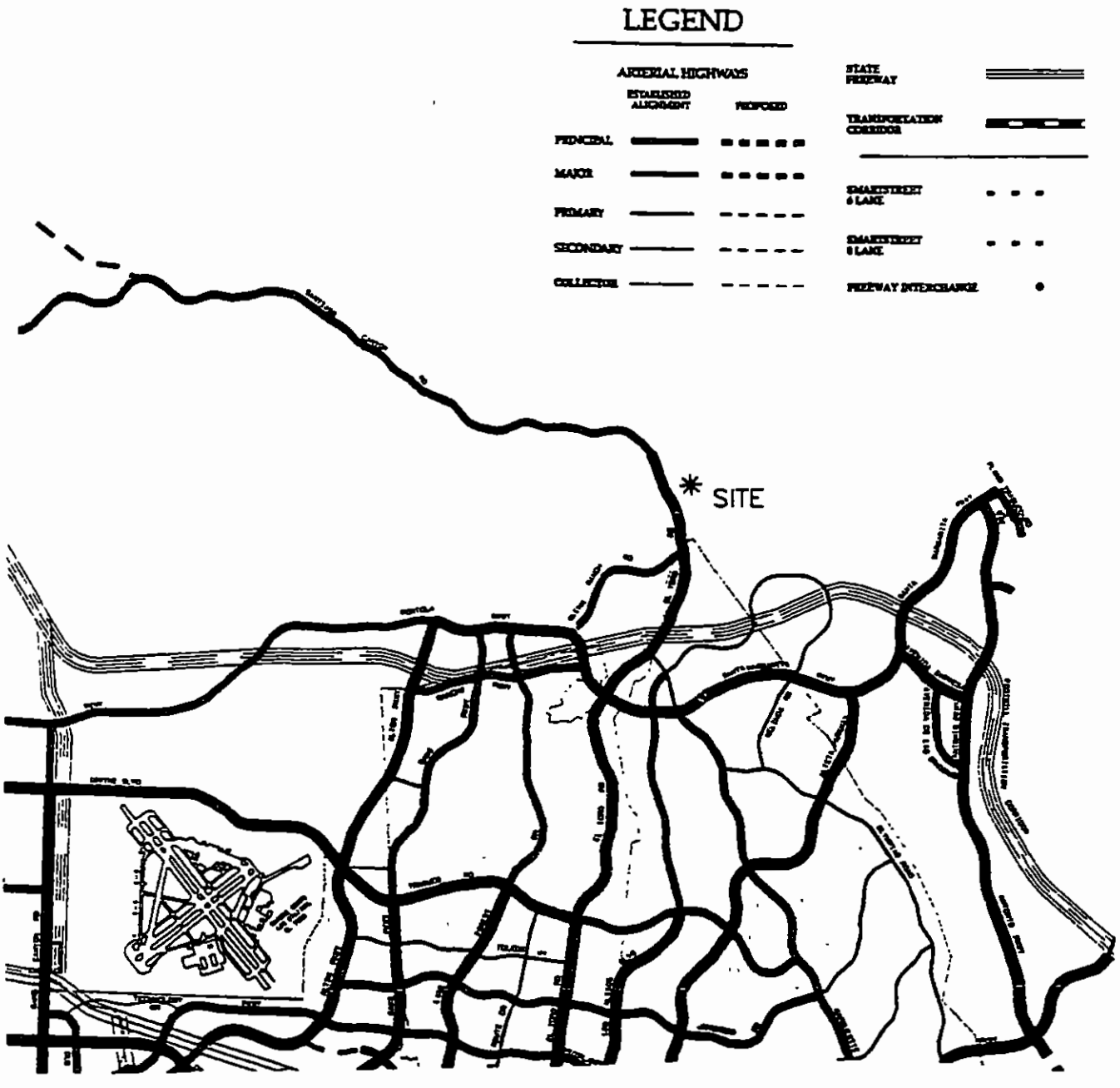

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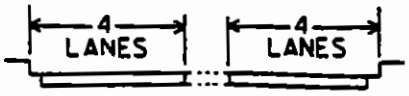
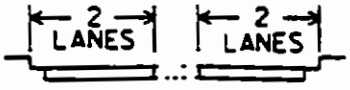
EXHIBIT E
ORANGE COUNTY CROSS-SECTIONS AND LEVEL OF SERVICE "C" VALUES

CLASSIFICATION



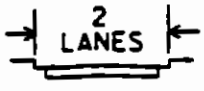
PRINCIPAL
8 Lane Divided Roadway
Accommodates 45,000 to 60,000 ADT

MAJOR
6 Lane Divided Roadway
Accommodates 30,000 to 45,000 ADT



PRIMARY
4 Lane Divided Roadway
Accommodates 20,000 to 30,000 ADT

SECONDARY
4 Lane Undivided Roadway
Accommodates 10,000 to 20,000 ADT



COMMUTER
2 Lane Undivided Roadway
Accommodates 7,500 to 10,000 ADT

EXHIBIT F

EXISTING AVERAGE DAILY TRAFFIC (ADT)

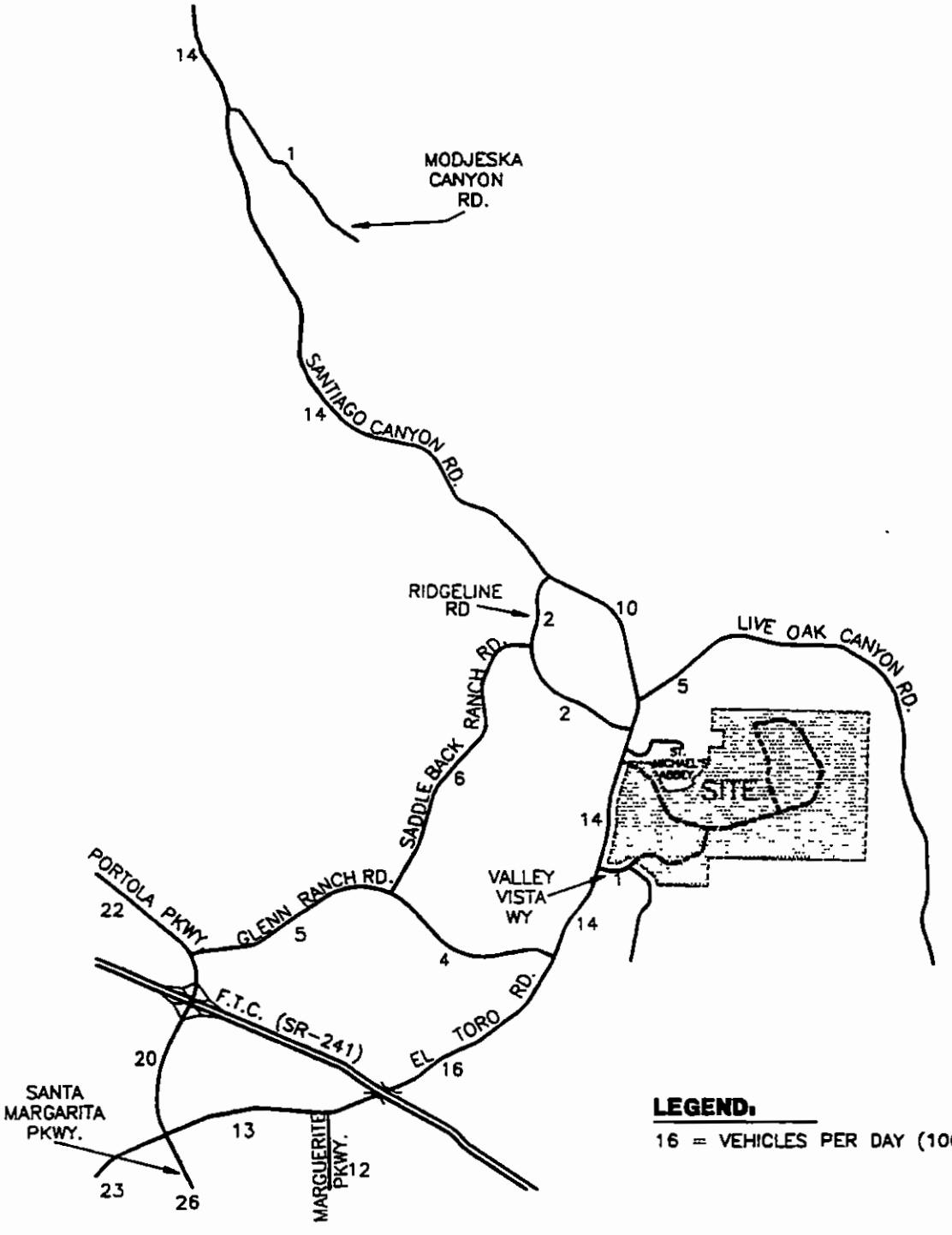


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TABLE 1

ROADWAY CAPACITY VALUES[1]

FREEWAY SIZES	AT ULTIMATE CAPACITY (LOS "E")
4 lanes	96,000
6 lanes	144,000
8 lanes	192,000
10 lanes	240,000
12 lanes	288,000
14 lanes	336,000

TYPE OF ARTERIAL	LEVEL OF SERVICE				
	A	B	C	D	E
8 lanes divided	45,000	52,500	60,000	67,500	75,000
6 lanes divided	33,900	39,400	45,000	50,600	56,300
4 lanes divided	22,500	26,300	30,000	33,800	37,500
4 lanes undivided	15,000	17,500	20,000	22,500	25,000
2 lanes divided	11,300	13,200	15,000	17,000	18,800
2 lanes undivided	7,500	8,800	10,000	11,300	12,500

[1] These roadway capacities are approximate figures only, and are used at the General Plan level. They are affected by such factors as intersections (numbers & configuration), degree of access control, roadway grades, design geometrics (horizontal & vertical alignment standards), sight distance, level of truck and bus traffic, and level of pedestrian and bicycle traffic. Average daily traffic (ADT) is used by the County as a long range planning tool to assist in determining arterial highway classification (number of through lanes) needed to meet traffic demand.

The technique used to assess the operation of an intersection is known as Intersection Capacity Utilization (ICU). To calculate an ICU the volume of traffic using the intersection is compared with the capacity of the intersection. ICU is usually expressed as a percent. The percent represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. An explanation of Level of Service is included in Appendix "A".

Calculation Method:

a. Intersection Capacity Utilization (ICU) for study area intersections;

b. Daily volume/capacity ratio (V/C) for study links.

c. Saturation Flow Rate:

Saturation flow value of 1,700 vehicles per lane per hour for intersections; no adjustments are used for protection movements with dedicated lanes (including both right and left turns).

d. Lost Time:

A lost time factor of 5% (.05) is applied to the ICU calculations.

e. Level of Service Ranges:

The following thresholds are used in assigning a letter value to the resulting LOS:

LOS	CRITICAL VOLUME TO CAPACITY RATIO
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

f. Peak-Periods:

Weekday peak-hour analysis periods are defined as follows:

7:00 to 9:00 AM
4:00 to 6:00 PM

g. Peak-Hour:

The highest one-hour period in both the AM and PM peak periods, as determined by four consecutive 15-minute count periods are used in the ICU calculations. Both AM and PM peak hours are studied.

h. Peak-Hour Data Consistency:

Variations in peak-hour volumes can affect LOS calculations because they vary from day-to-day. To minimize these variations, no counts are taken on Mondays, Fridays, holidays or weekends.

i. Right Turn Movements:

If the distance from the edge of the outside through lane is at least 19 feet and parking is prohibited during the peak period, right turning vehicles may be assumed to utilize this "unofficial" right turn lane. Otherwise, all right turn traffic is assigned to the through lane. If a right turn lane exists, right turn activity is checked for conflicts with other critical movements. It is assumed that right turn movements are accommodated during non-conflicting left turn phases (e.g., northbound right turns during westbound left turn phase), as well as non-conflicting through flows (e.g., northbound right turn movements and north/south through flows. Right turn movements become critical when conflicting movements (e.g., northbound right turns, southbound left turns, and eastbound through flows) represent a sum of V/C ratios which are greater than the normal through/left turn critical movements. Right turn volumes have been reduced by 15% to account for right turns on red.

If a free right turn lane exists (right turns do not have to stop for the signal), a flow rate of 1,700 vehicles per hour per lane is assumed. The V/C ratio of the right turn lane is reported but not included in the sum of the critical V/C ratios.

The ICU's for the intersections in the vicinity of the site are shown in Table 2. Existing ICU's are based upon manual AM and PM peak hour turning movement counts made for RKJK in June and August, 1995 (see Exhibits G and H). The existing intersection lanes for the study area intersections are depicted on Exhibit I.

TABLE 2

EXISTING INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.82	0.57	D	A
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.78	0.55	C	A
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.74	0.45	C	A
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.62	0.53	B	A
• Valley Vista Way (EW)	0	1	1	1	1	0	0	0	0	0	1	0	0.58	0.45	A	A
• Glenn Ranch Rd. (EW)	1	1	0	0	1	1	1	0	1	0	0	0	0.54	0.56	A	A
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	1	2	0	0	2	1	0.29	0.33	A	A
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	1>	0	0	0	0	2	0	2	2	0	0.32	0.43	A	A
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	0	3	1	2	3	0	0	0	0	2	0	1	0.54	0.45	A	A
• Foothill Trans. Corridor (EW)	2	2	1>>	1	2	1>>	1	0	1>>	1	0	1>>	0.40	0.55	A	A
• El Toro Rd. (EW)	2	4	1	2	3	1	1	3	1>>	1	3	1	0.40	0.49	A	A

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

EXHIBIT G
EXISTING AM PEAK HOUR INTERSECTION VOLUMES

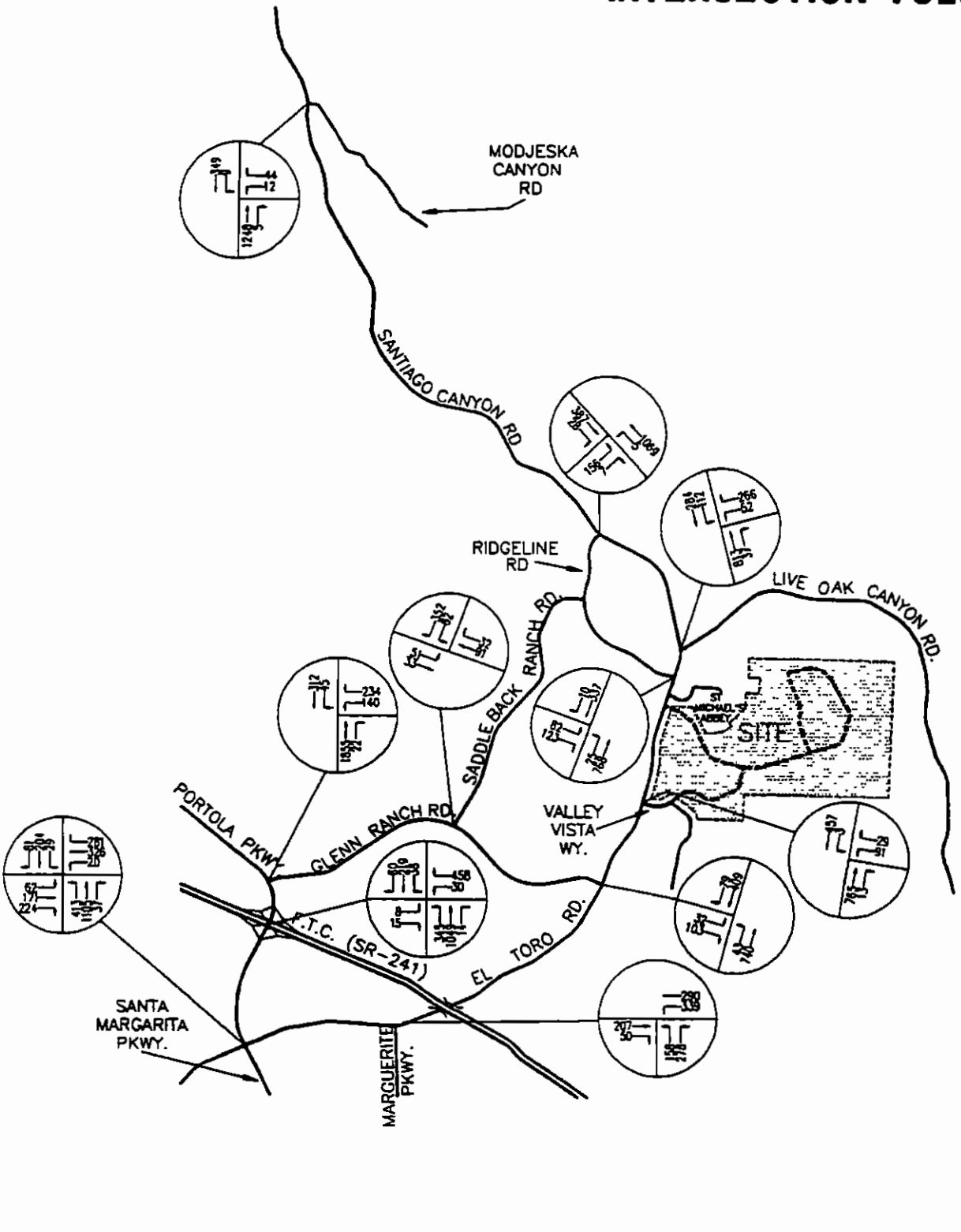

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EXHIBIT H
EXISTING PM PEAK HOUR INTERSECTION VOLUMES

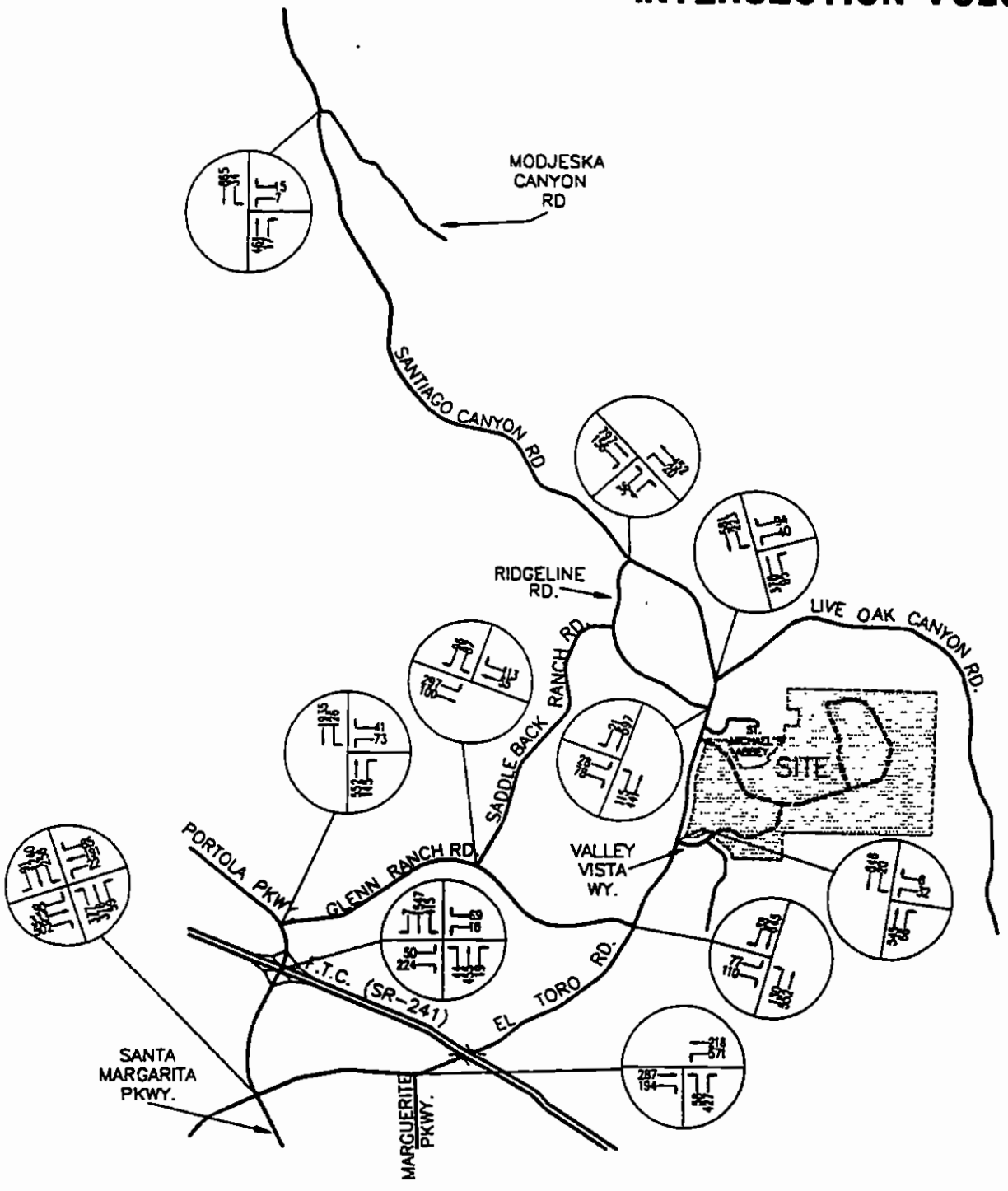

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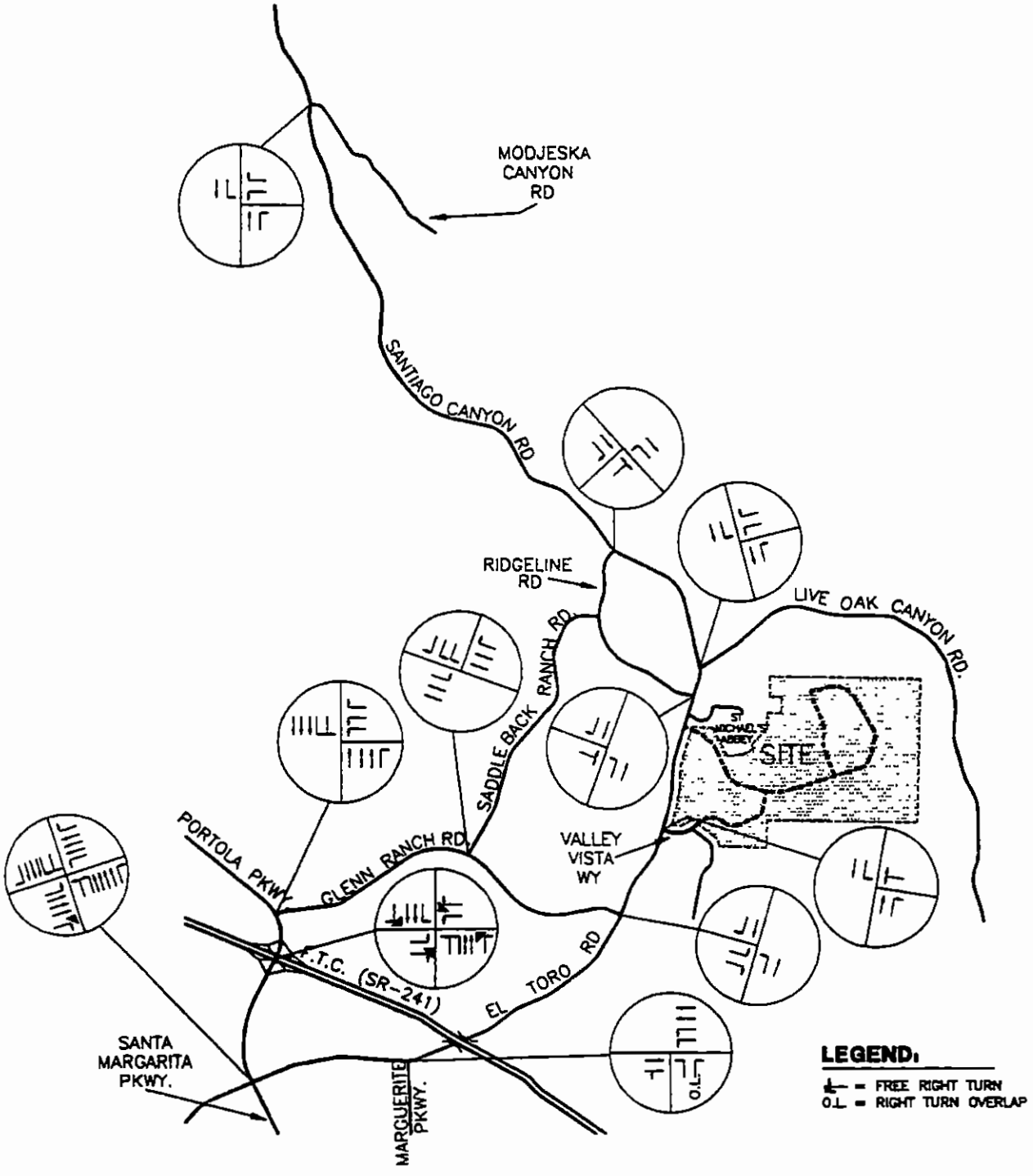
EXHIBIT 1
EXISTING INTERSECTION LANES



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Traffic count worksheets are included in Appendix "B". The intersections in the vicinity of the site are currently operating at Level of Service "D" or better during the peak hours. ICU calculation worksheets are provided in Appendix "C".

Traffic signals appear to presently be warranted at the following intersections (see Appendix "I"):

Santiago Canyon Road (NS) at:

- Ridgeline Road (EW)

El Toro Road (NS) at:

- Live Oak Canyon Road (EW)

III. PROJECTED TRAFFIC

A. Site Traffic

1. Trip Generation

Trip generation represents the amount of traffic which is attracted and produced by a development. The recorded map for Tract 10692 shows 705 manufactured housing dwelling units. The project site also includes 20,000 square feet of commercial retail.

Trip generation rates for this project are shown in Table 3. The trip generation rates are based upon the County of Orange and Institute of Transportation Engineers (ITE).

Both daily and peak-hour trip generation for the proposed project are shown in Table 4. The Saddleback Meadows (TT 10692) development is projected to generate a total of approximately 8,340 trip-ends per day with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour.

It should be noted that for commercial retail land uses, a portion of the traffic would come from pass-by or diverted trips from adjacent roadways, trips which are currently on the roadway system (see Appendix "K"). In order to analyze a "conservative" scenario in terms of the assignment of traffic, the traffic volumes from the project site have been reduced by 30% as a result of pass-by or diverted trips.

TABLE 3

TRIP GENERATION RATES

LAND USE	UNITS[2]	PEAK HOUR[1]				DAILY
		AM		PM		
		IN	OUT	IN	OUT	
Manufactured Housing	DU	0.17	0.50	0.47	0.36	8.00
Commercial Retail	TSF	1.98	1.16	5.88	5.88	135.00[3]

[1] Source: Institute of Transportation Engineers (ITE), Trip Generation, Fifth Edition Update, February, 1995, Land Use Categories 231 and 820.

[2] DU = dwelling units
TSF = thousand square feet

[3] Source: County of Orange, Daily Vehicle Trip Generation Rates, August, 1982.

TABLE 4

PROJECT TRIP GENERATION

LAND USE	UNITS[2]	PEAK HOUR[1]				DAILY[3]
		AM		PM		
		IN	OUT	IN	OUT	
Manufactured Housing	705.0 DU	120	355	330	255	5,640
Commercial Retail	20.0 TSF	40	25	120	120	2,700
• Pass-By/Diverted Trips[4] (30%)		-10	-5	-35	-35	-810
Total						
• W/O Pass-By/Diverted Reduction		160	380	450	375	8,340
• W/Pass-By/Diverted Reduction		150	375	415	340	7,530

[1] All peak hour trips rounded to nearest 5.

[2] DU = dwelling units
TSF = thousand square feet

[3] All daily trips rounded to nearest 10.

[4] A portion of the commercial retail traffic would come from pass-by or diverted trips from adjacent roadways, trips which are currently on the roadway system (see Appendix "K").

A trip generation comparison to four other alternatives of the project site is shown in Table 5. All of the alternatives decrease the AM and PM vehicles per hour and daily trip-ends as compared to the proposed project.

2. Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the proximity to the regional freeway system, existing/future residential development, other commercial and community facilities. The directional orientation of traffic was determined by evaluating existing and proposed land uses within the community and the Master Plan of Arterial Highways (MPAH).

Trip distribution for this study has been based upon near-term conditions, based upon those highway facilities which are in place. The trip distribution patterns for the project are graphically depicted on Exhibits J and K.

3. Modal Split

The traffic reducing potential of public transit has not been considered in this report. Essentially the traffic projections are "conservative" in that public transit might be able to reduce the traffic volumes.

TABLE 5

TRIP GENERATION COMPARISON FOR OTHER ALTERNATIVES

LAND USE	QUANTITY[2]	PEAK HOUR[1]				DAILY[3]
		AM		PM		
		IN	OUT	IN	OUT	
Single-Family Detached Residential	150 DU	30	85	100	55	1,800
Single-Family Detached Residential	100 DU	20	55	65	35	1,200
Multi-Family Attached Residential	Small Lot Cluster/ 318 DU MF	30	120	120	65	2,230
Single-Family Detached Residential	299 DU	55	165	195	105	3,590
TT 10692 Project • Manufactured Housing • Commercial Retail	 705 DU 20.0 TSF	 120 40	 355 25	 330 120	 255 120	 5,640 2,700
Subtotal		160	380	450	375	8,340

[1] All peak hour trips are rounded to the nearest 5.

[2] DU = dwelling units
TSF = thousand square feet

[3] Daily trips are rounded to the nearest 10.

EXHIBIT J
PROJECT (RESIDENTIAL) TRIP DISTRIBUTION

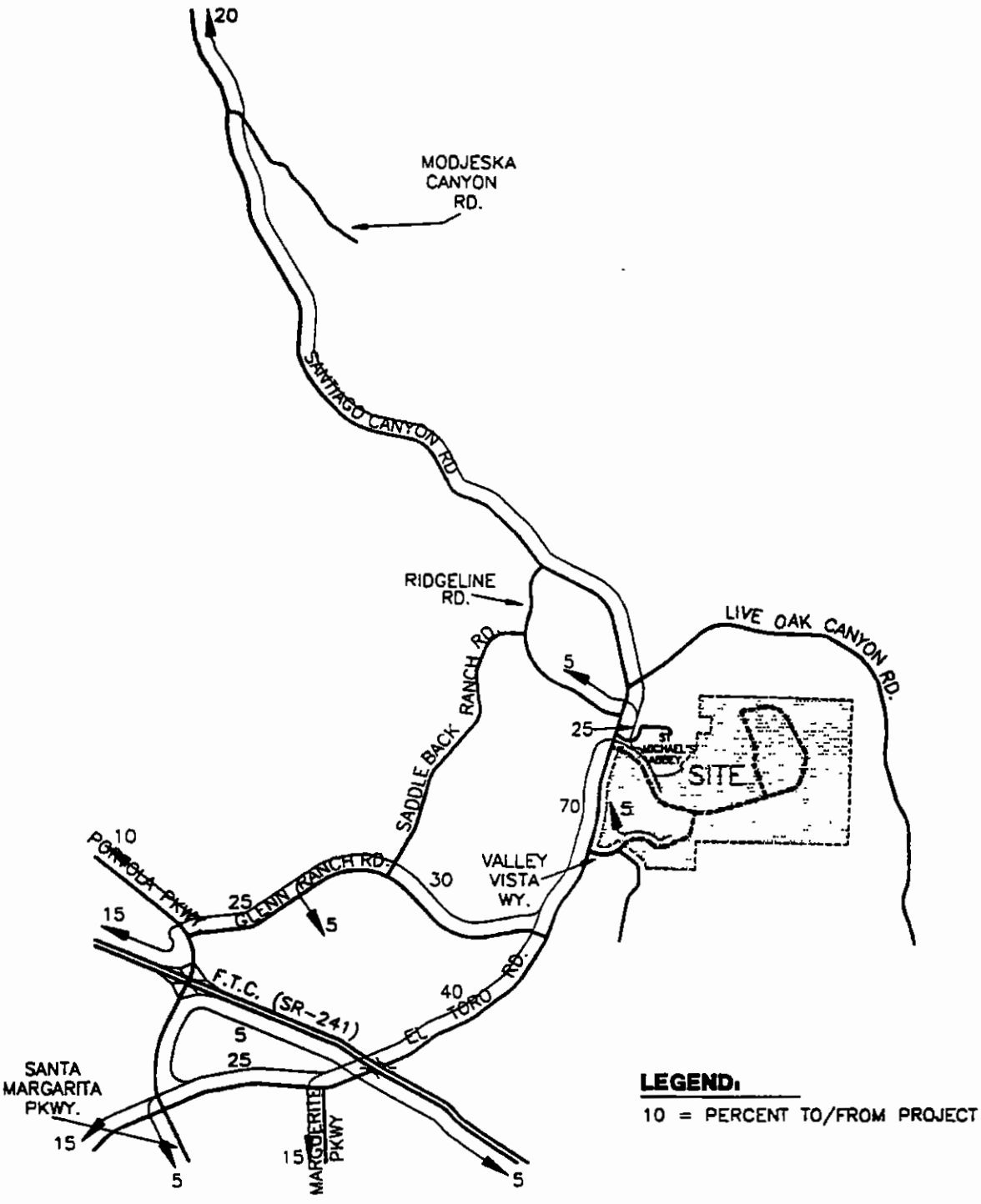

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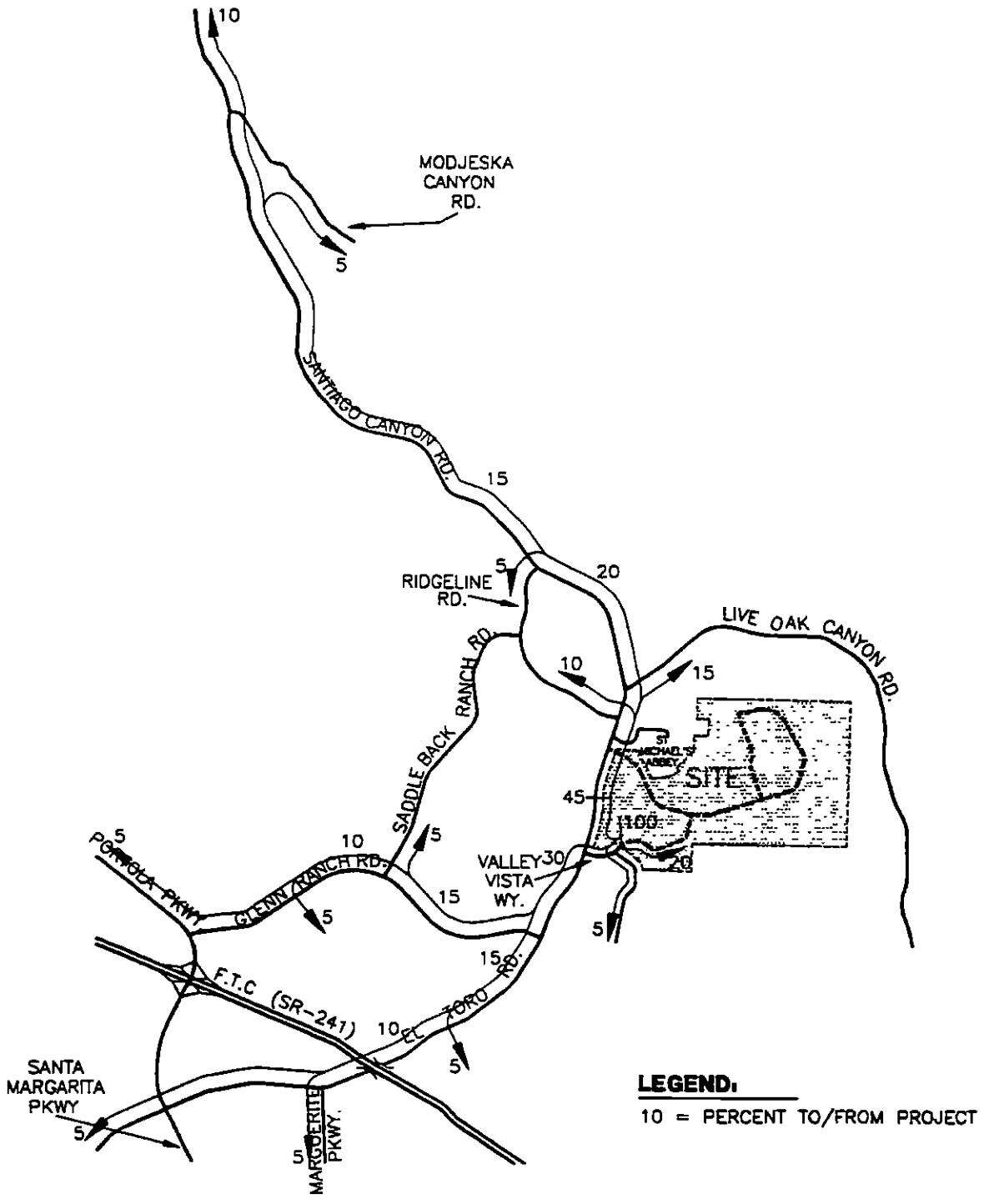
EXHIBIT K

PROJECT (COMMERCIAL RETAIL) TRIP DISTRIBUTION



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4. Trip Assignment

The assignment of traffic from the site to the adjoining roadway system has been based upon the site's trip generation, trip distributions, proposed arterial highway and local street systems. Based on the identified project traffic generation and distributions, the project related traffic volumes are shown on Exhibit L. The project AM and PM peak hour intersection turning movement volumes are shown on Exhibits M and N, respectively.

B. Other Development Traffic

1. Method of Projection

During 1995, RKJK staff interfaced with the County of Orange regarding the Year 2000 and Year 2020 traffic projections in the study area. The modeling source for traffic projections in the study area has been the Orange County Transportation Analysis Model (OCTAM), Version 2.5, South County Subarea (SCTM). SCTM projections for the Year 2000 incorporate 366 single-family residential units in traffic analysis zone 2695 which encompasses the project site. The Year 2000 and 2020 ADT volume forecasts were projected to include the residential portion of the project, therefore, Year 2000 and 2020 traffic conditions without the project involved subtracting the residential project volumes from the SCTM model volumes. The entire proposed project including the commercial retail portion was then added to this baseline data to determine the "with project" volumes.

EXHIBIT L
PROJECT AVERAGE DAILY TRAFFIC (ADT)

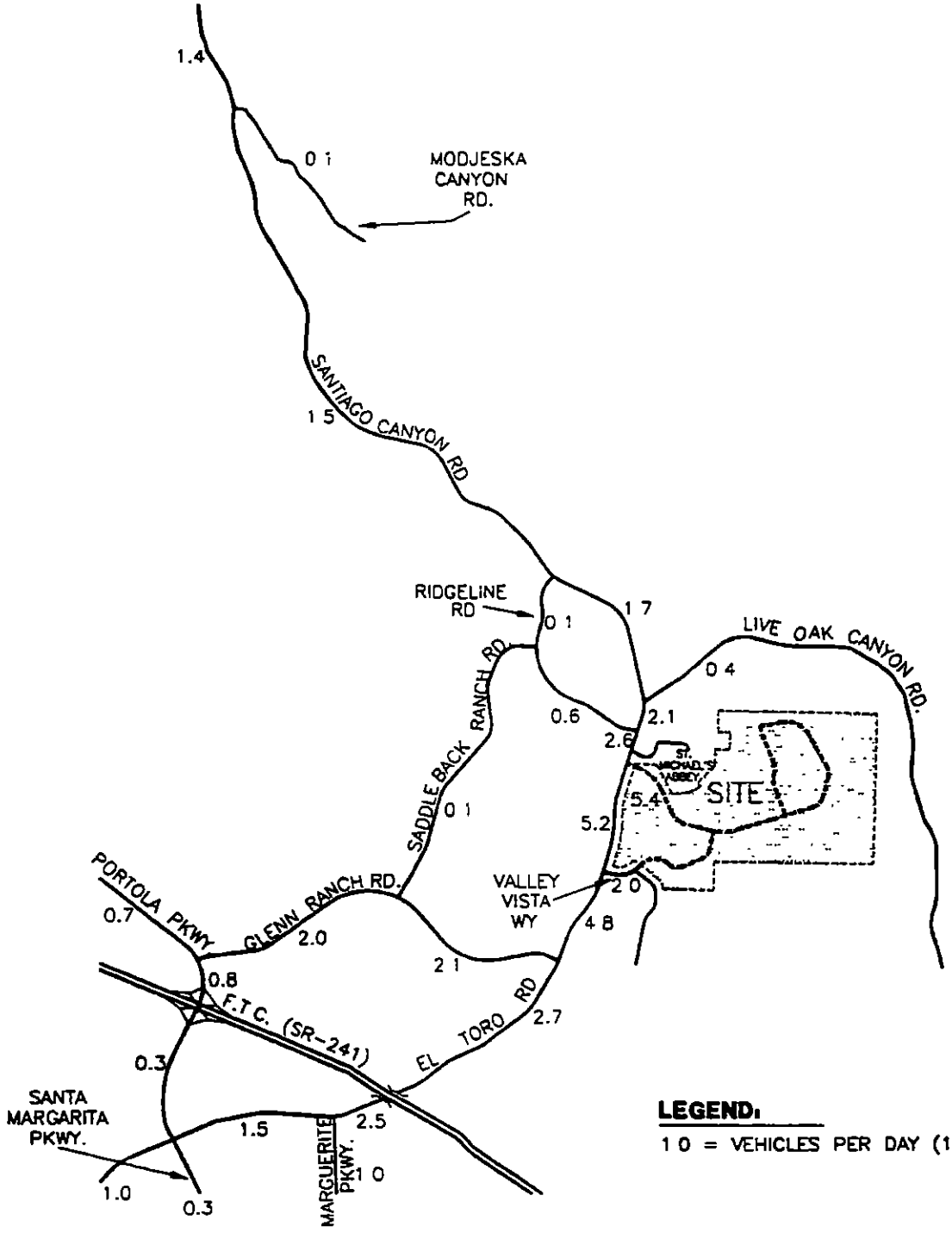

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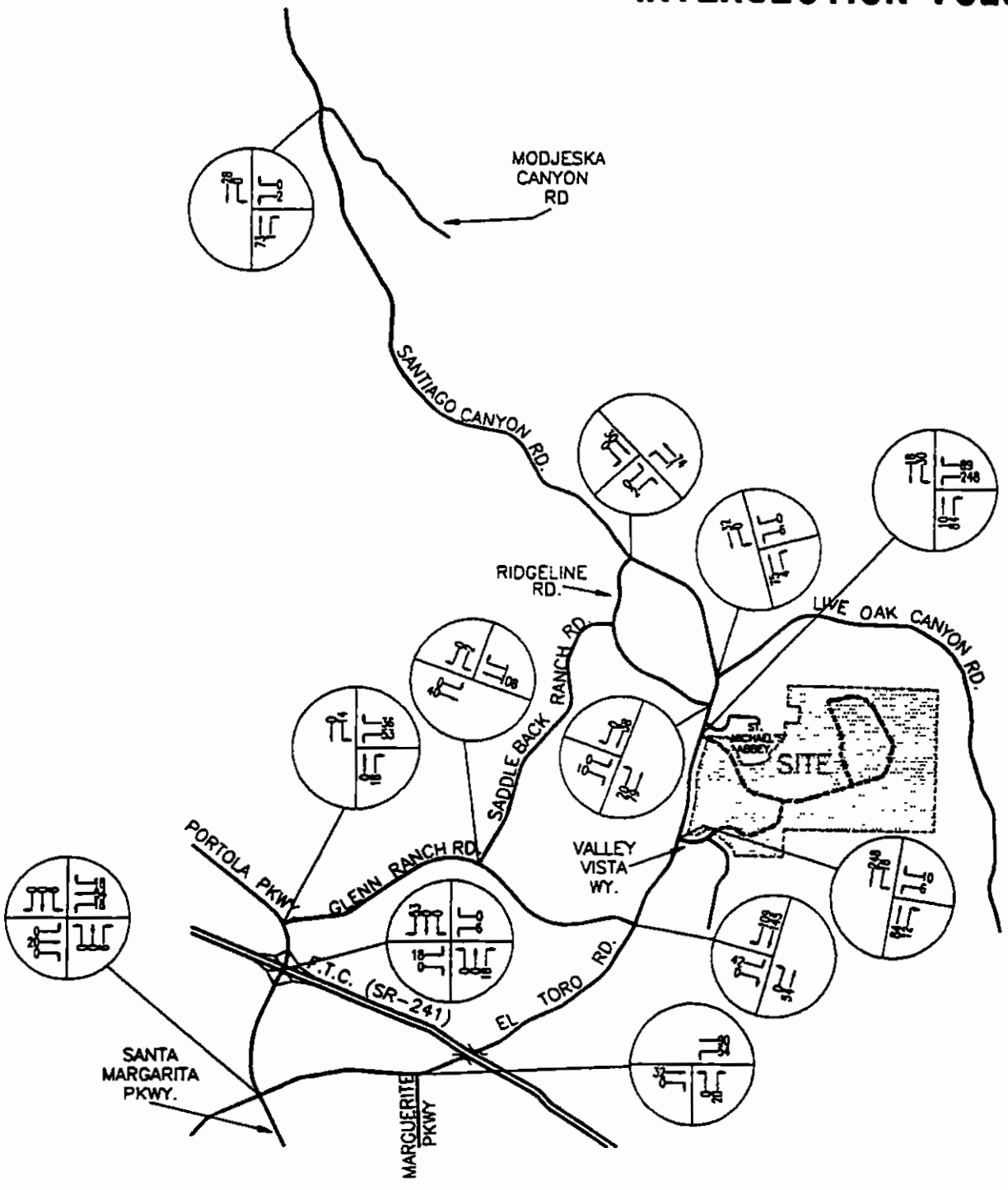
EXHIBIT M
PROJECT AM PEAK HOUR INTERSECTION VOLUMES



585-95-001:67A
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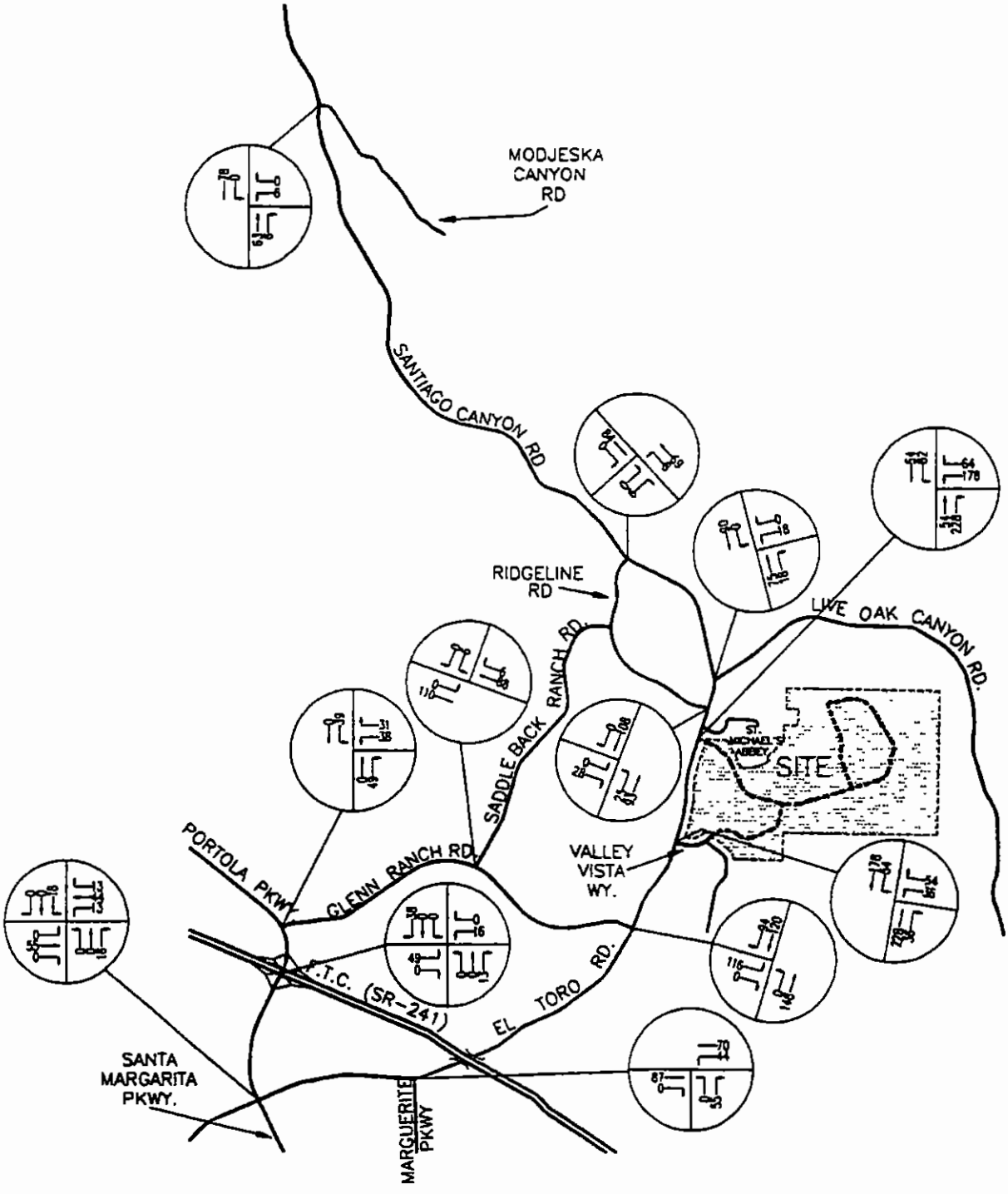
EXHIBIT N
PROJECT PM PEAK HOUR INTERSECTION VOLUMES



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The Year 2000 and 2020 peak hour forecasts were developed using the previously described daily forecasts, along with peak hour traffic count data collected at each analysis location. Each existing turning movement was initially multiplied by the average growth in daily traffic for the two legs of the intersection involved. The resulting initial estimate of the future Year 2000 and 2020 peak hour turning movements were then reviewed for reasonableness. The reasonableness checks performed include review of flow conservation, as well as comparison to both the existing actual counted volume and the overall relationship between the forecast peak hour volume and daily volume on each individual intersection leg. Where necessary, the initial estimates were adjusted to achieve flow conservation, reasonable growth, and acceptable relationships between the peak hour and daily traffic volume forecasts.

2. Non-Site Traffic for Study Area

The Live Oak Plaza Traffic Analysis prepared by Kunzman Associates (January 7, 1997) has been included as other development in this traffic study.

Table 6 depicts the daily and peak hour vehicle trips generated by the other development in the study area. Exhibit O illustrates the directional distribution and assignment of the other development traffic. Based on the identified trip distribution for other development on arterial highways throughout the study area, other development average daily traffic (ADT) are shown on Exhibit P. Other development AM and PM peak hour intersection turning movement volumes are shown on Exhibits Q and R, respectively.

TABLE 6

OTHER DEVELOPMENT TRIP GENERATION

PROJECT	PEAK-HOUR				DAILY
	AM		PM		
	IN	OUT	IN	OUT	
Live Oak Plaza[1]	106	78	255	252	5,560

[1] Source: Live Oak Plaza Traffic Analysis, Kunzman Associates, January 7, 1997. An additional pass-by percentage of 44% provided within the Kunzman Associates Traffic Analysis has been utilized for the Saddleback Meadows Traffic Analysis.

EXHIBIT O
OTHER DEVELOPMENT TRIP DISTRIBUTION

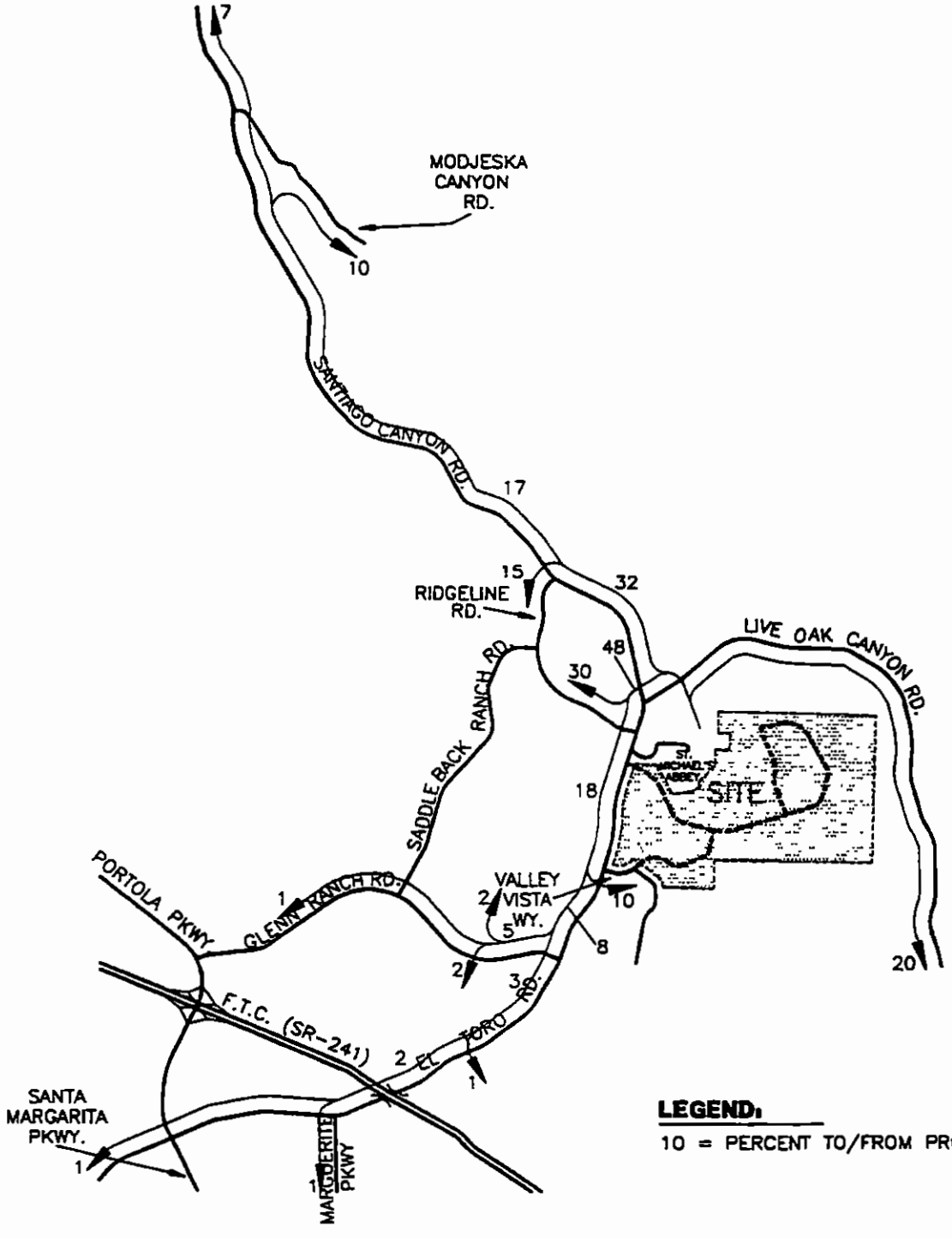

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EXHIBIT P
OTHER DEVELOPMENT
AVERAGE DAILY TRAFFIC (ADT)

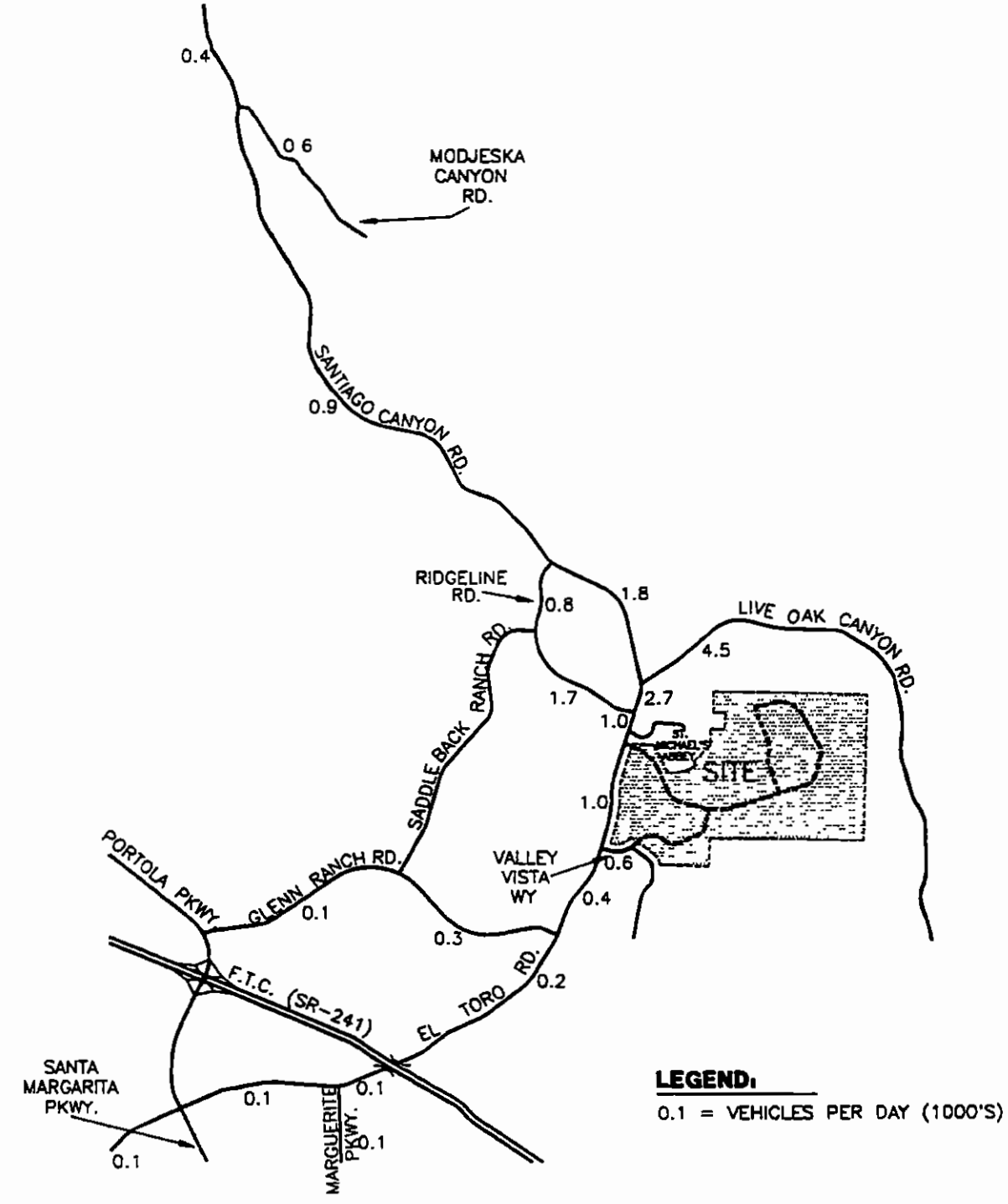

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EXHIBIT Q
OTHER DEVELOPMENT AM PEAK HOUR INTERSECTION VOLUMES

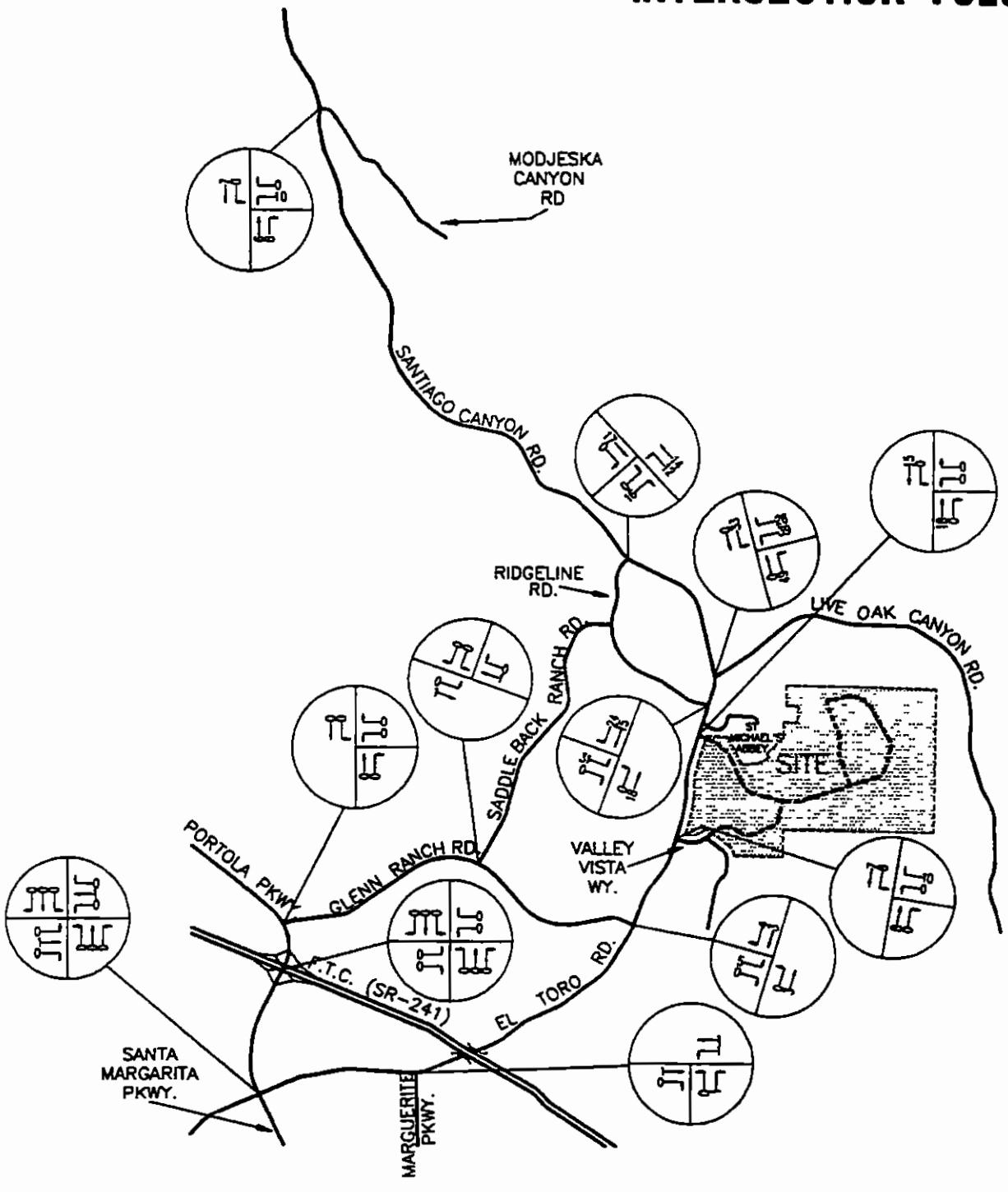

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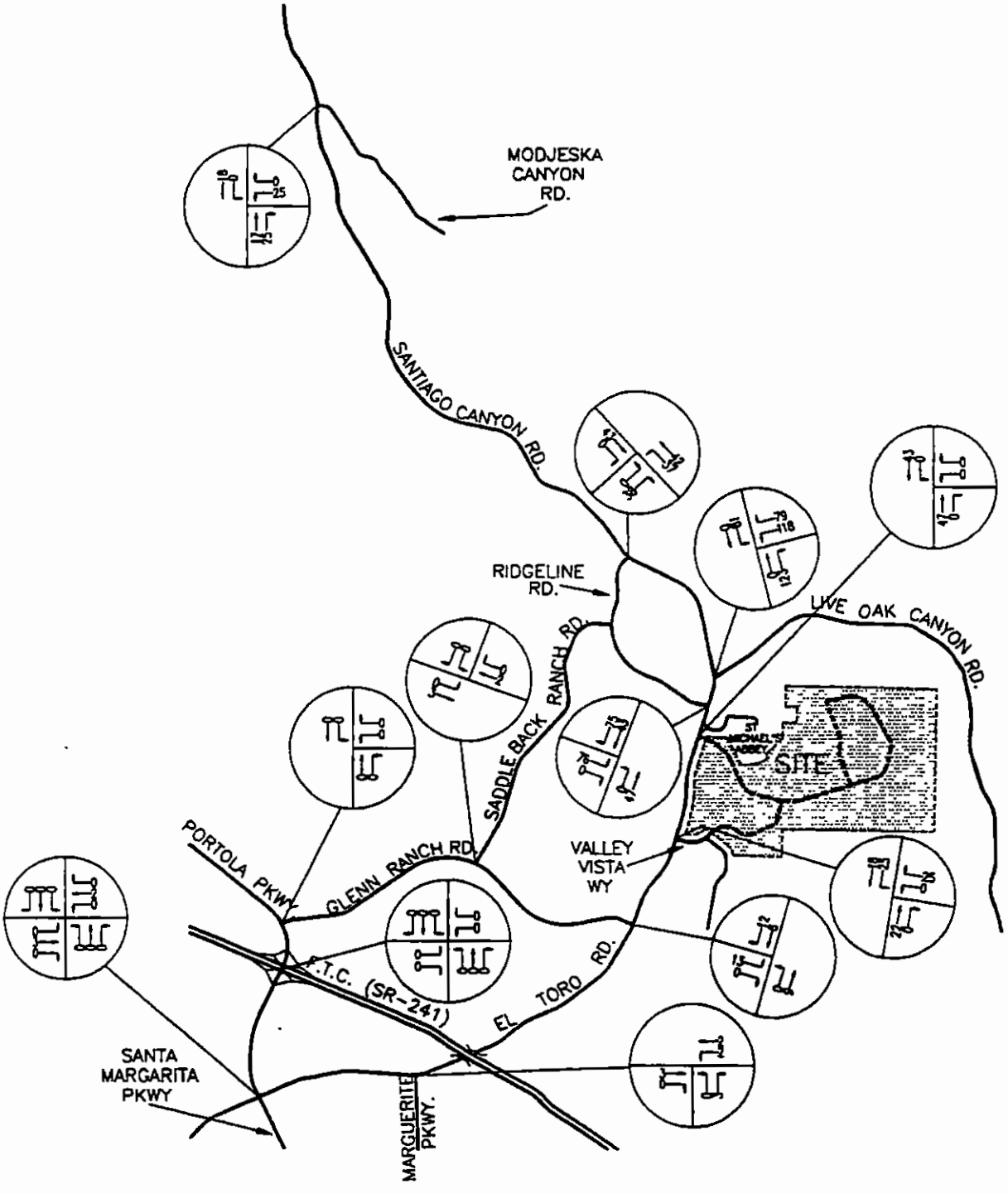
EXHIBIT R
OTHER DEVELOPMENT PM PEAK HOUR INTERSECTION VOLUMES



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C. Total Traffic

Once the project related traffic is assigned to the street network (see Exhibit L) and added to existing volumes in the study area, existing plus project ADT volumes can be assessed (see Exhibit S).

Exhibit T shows the ADT volumes which can be expected for Year 2000 traffic conditions without the project.

Exhibit U shows the SCTM ADT volumes which can be expected for Year 2000 traffic conditions with the project. Traffic volume increases along El Toro Road and Santiago Canyon Road caused by both the project site and surrounding development are moderated by the incremental extension of the Foothill Transportation Corridor (SR-241) and the availability of Glenn Ranch Road to service traffic generated west of El Toro Road and north of the corridor.

Exhibit V shows the ADT volumes which can be expected for Year 2020 traffic conditions without the project. Exhibit W shows the SCTM ADT volumes which can be expected for Year 2020 traffic conditions with the project.

EXHIBIT S
EXISTING PLUS PROJECT AVERAGE DAILY TRAFFIC (ADT)

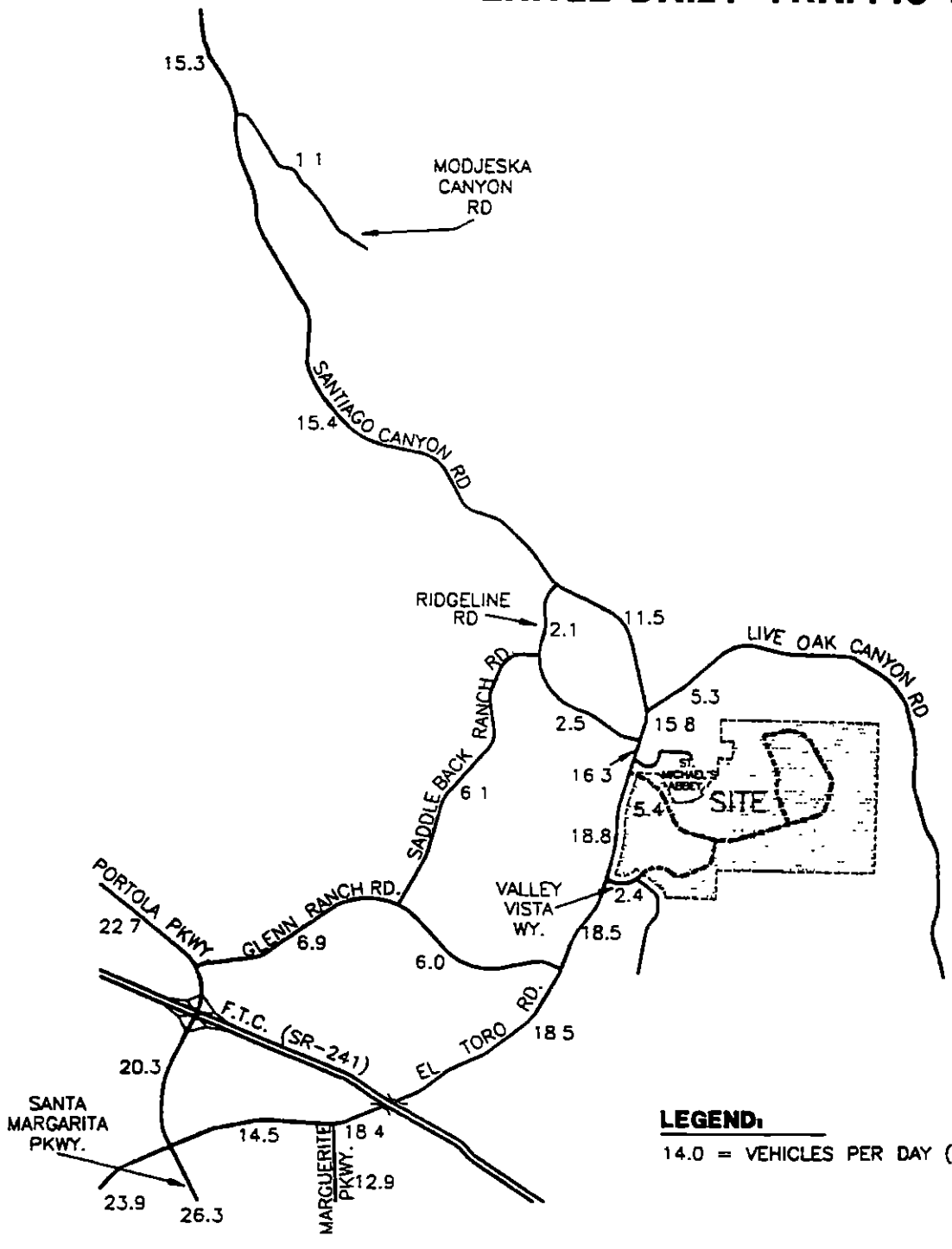

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EXHIBIT T

YEAR 2000 AVERAGE DAILY TRAFFIC (ADT) WITHOUT PROJECT

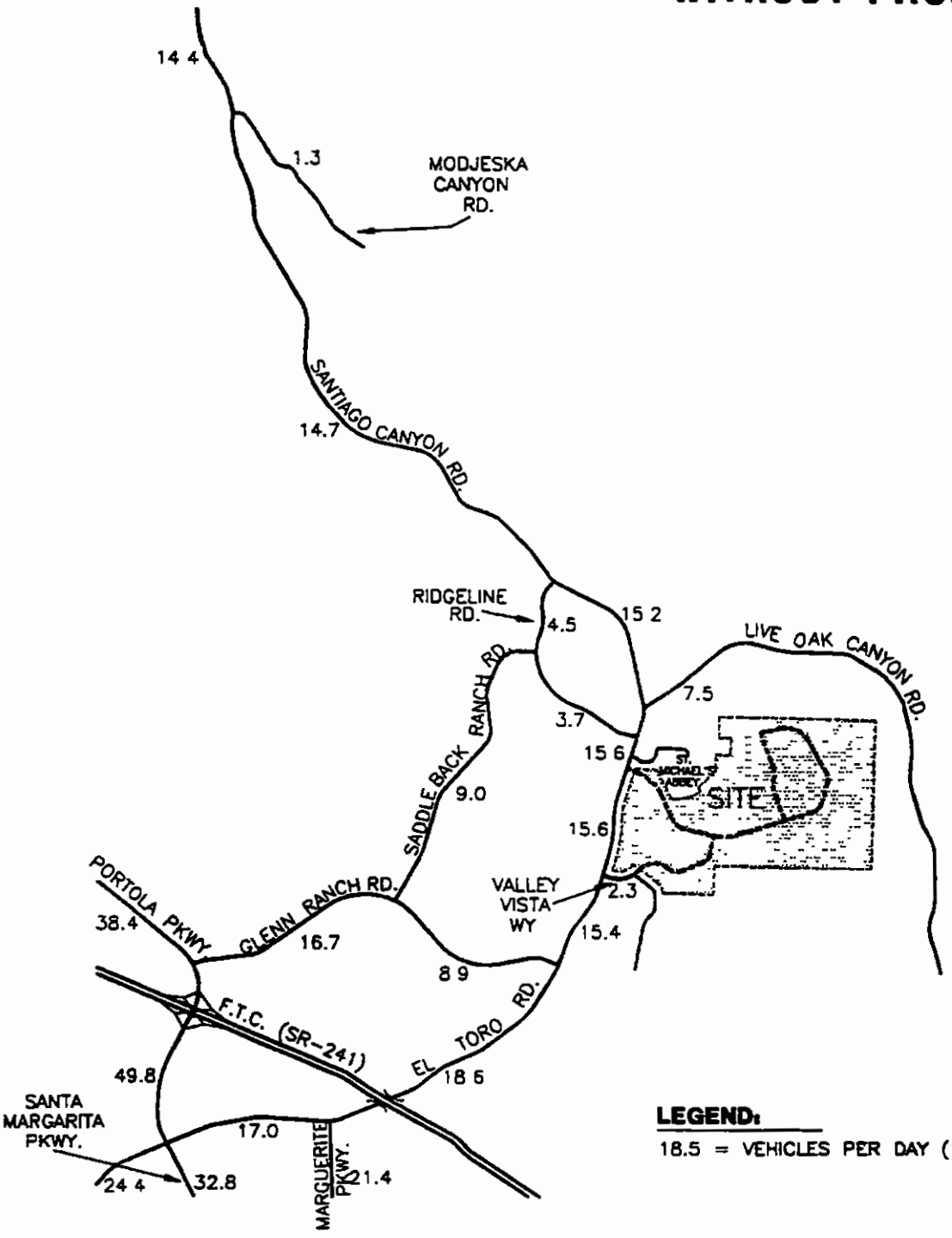

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EXHIBIT U
YEAR 2000 AVERAGE DAILY TRAFFIC (ADT) WITH PROJECT

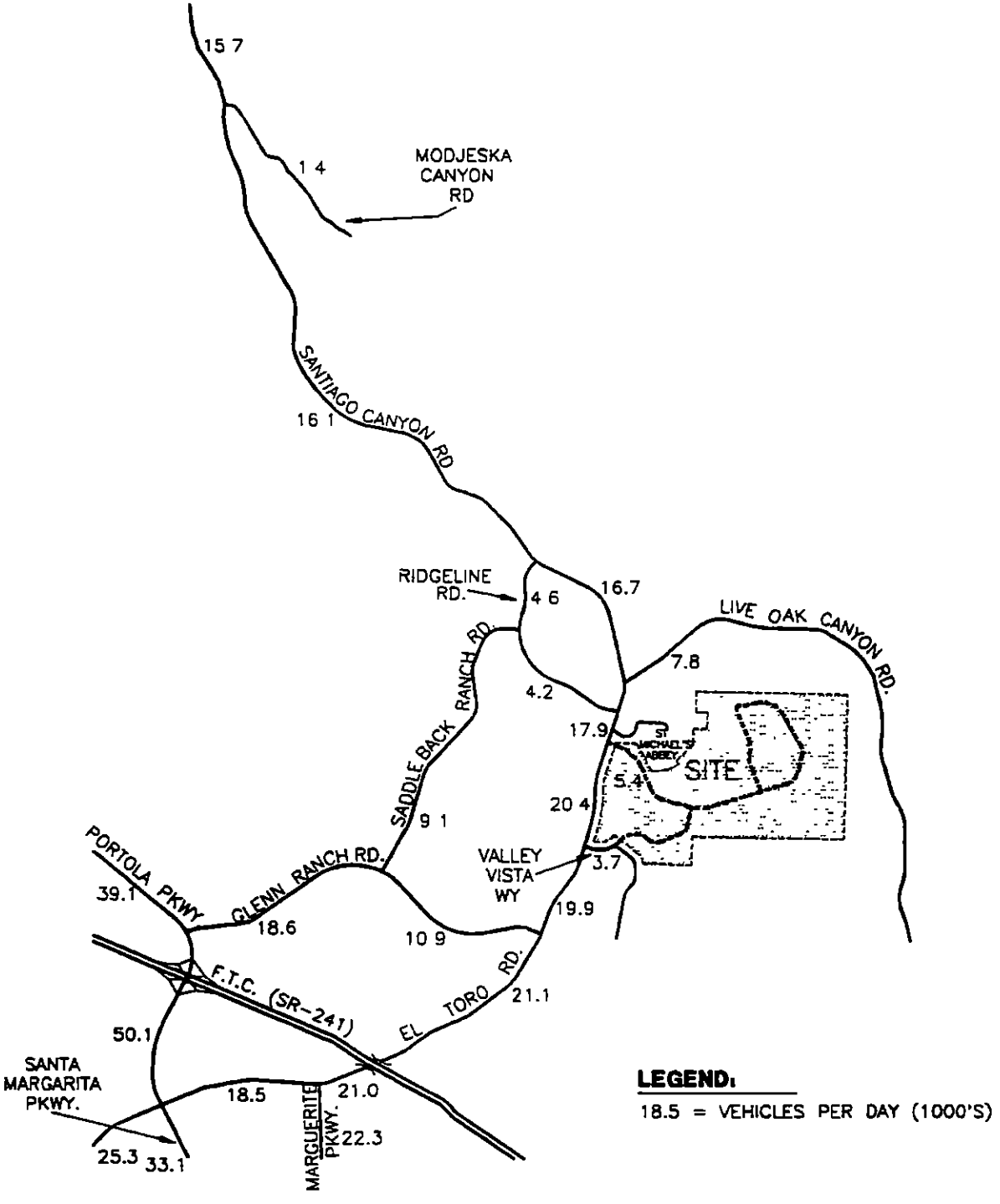

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EXHIBIT V
YEAR 2020 AVERAGE DAILY TRAFFIC (ADT) WITHOUT PROJECT

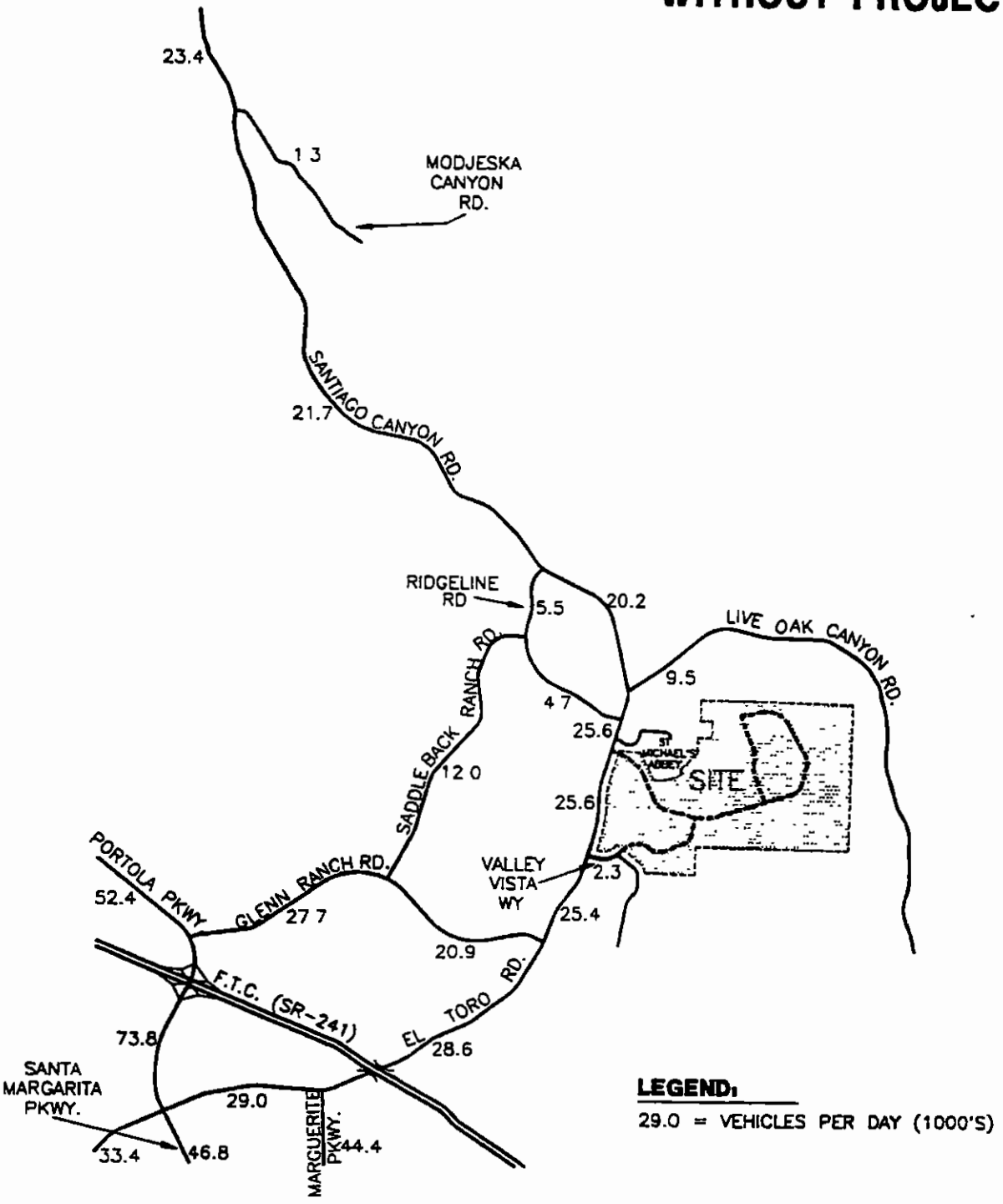

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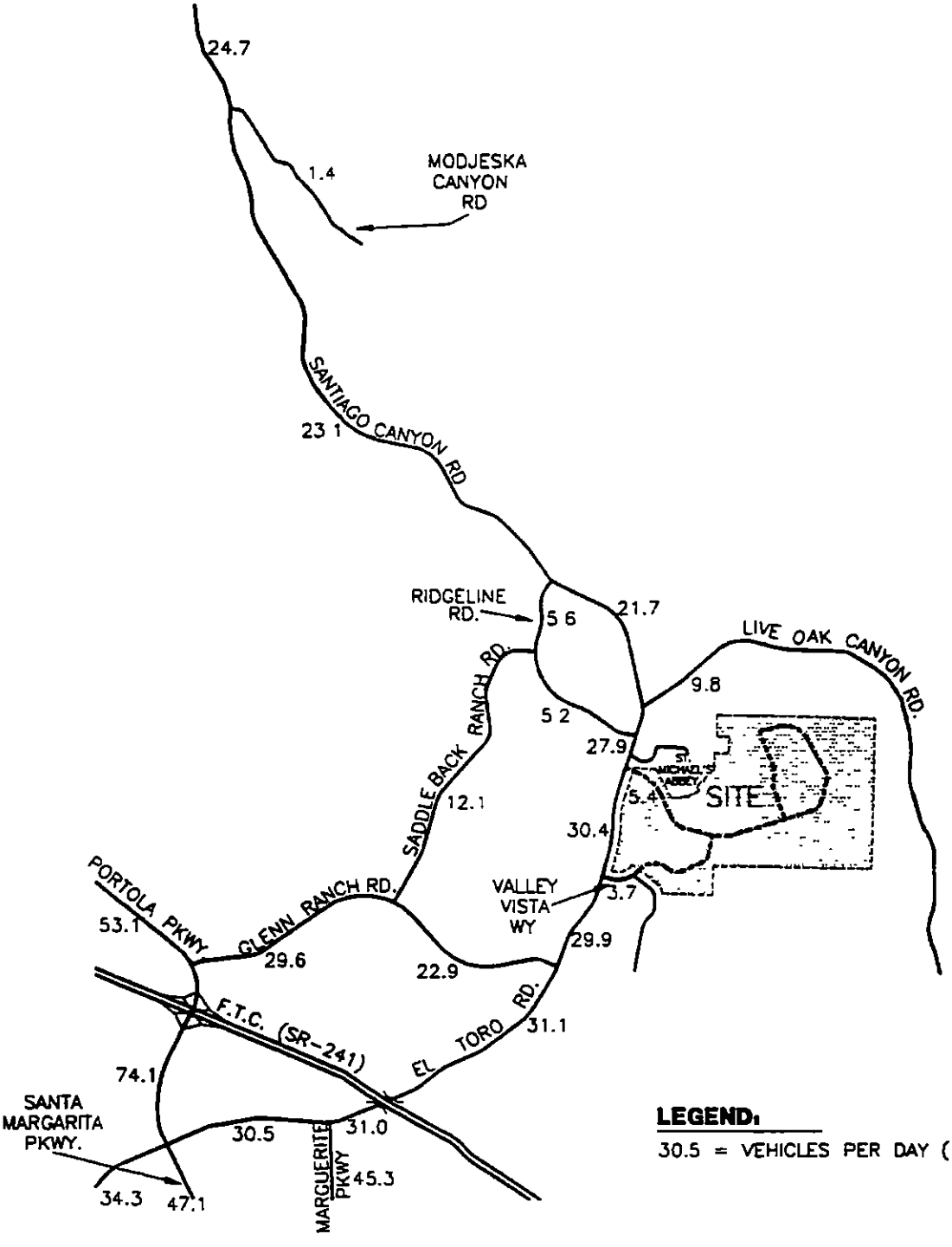
EXHIBIT W
YEAR 2020 AVERAGE DAILY TRAFFIC [ADT] WITH PROJECT



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IV. TRAFFIC ANALYSIS

A. Capacity and Level of Service and Improvement Analysis, Existing Plus Project

1. Level of Service at Existing Plus Project

Intersection Capacity Utilization (ICU) for existing plus project traffic conditions have been calculated and are shown in Table 7. Table 7 shows ICU calculations at the study area intersections without improvements. Existing plus project AM and PM peak hour turning movement volumes are shown on Exhibits X and Y, respectively.

As shown in Table 7, intersections in the vicinity of the site are projected to continue to operate at Level of Service "D" or better during the peak hours. ICU calculation worksheets are included in Appendix "D". A traffic signal is projected to be warranted at the intersection of El Toro Road/Project Entrance for existing plus project traffic conditions (see Appendix "I").

B. Capacity and Level of Service and Improvement Analysis, Year 2000

1. Level of Service at Year 2000 Without Project

Intersection Capacity Utilization (ICU) for Year 2000 traffic conditions without the project have been calculated and are shown in Table 8. Table 8 shows ICU calculations at the study area intersections without the project, without improvements. Year 2000 AM and PM peak hour

TABLE 7

EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.87	0.61	D	B
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.82	0.60	D	A
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.78	0.49	C	A
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.68	0.62	B	B
• Project Entrance (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.69	0.57	B	A
• Valley Vista Way (EW)	0	1	1	1	1	0	0	0	0	0	1	0	0.64	0.59	B	A
• Glenn Ranch Rd. (EW)	1	1	0	0	1	1	1	0	1	0	0	0	0.57	0.69	A	B
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	1	2	0	0	2	1	0.32	0.33	A	A
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	1>	0	0	0	0	2	0	2	2	0	0.34	0.49	A	A
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	0	3	1	2	3	0	0	0	0	2	0	1	0.57	0.46	A	A
• Foothill Trans. Corridor (EW)	2	2	1>>	1	2	1>>	1	0	1>>	1	0	1>>	0.40	0.58	A	A
• El Toro Rd. (EW)	2	4	1	2	3	1	1	3	1>>	1	3	1	0.41	0.50	A	A

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

EXHIBIT X
EXISTING PLUS PROJECT AM PEAK HOUR INTERSECTION VOLUMES

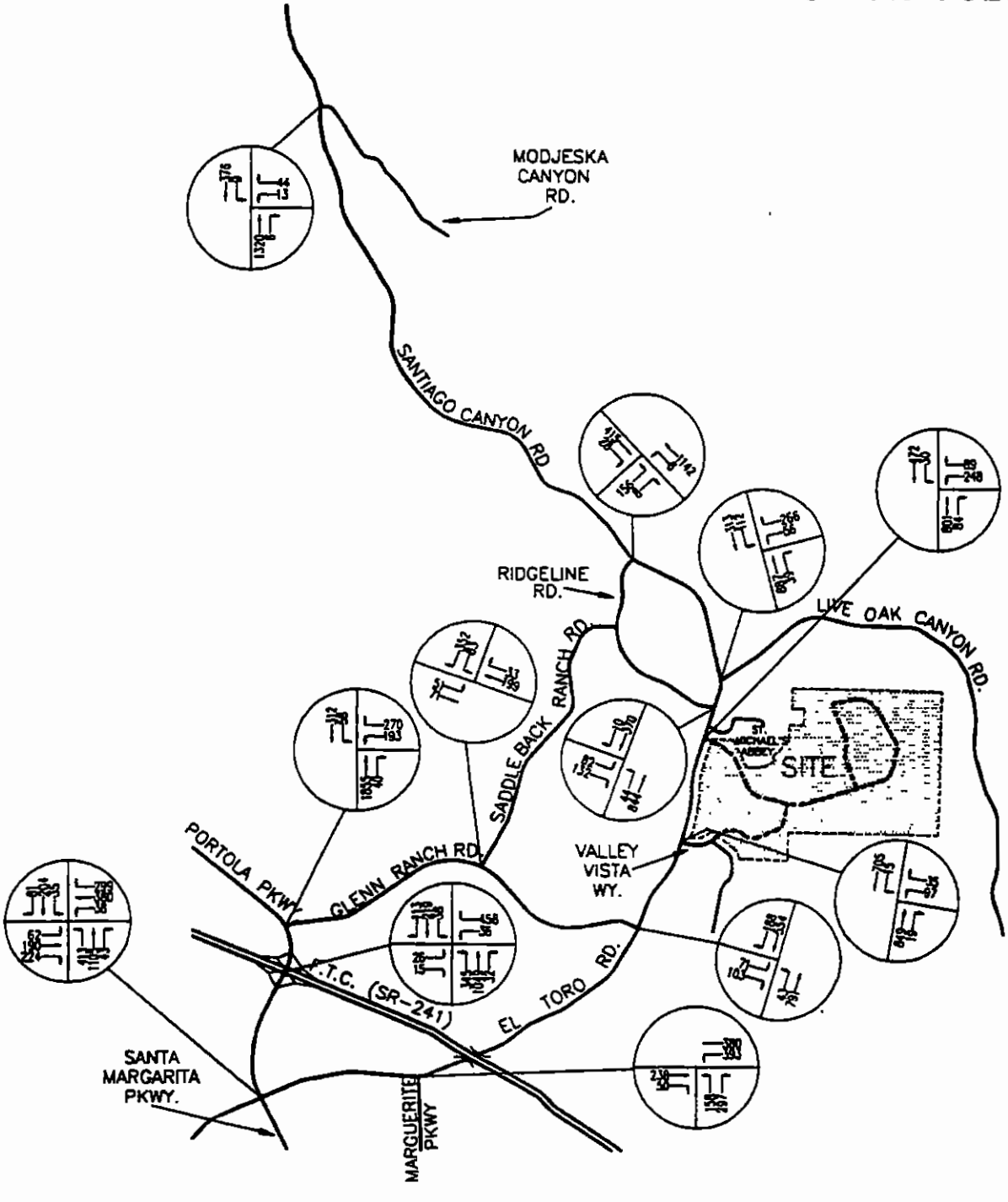

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EXHIBIT Y
EXISTING PLUS PROJECT PM PEAK HOUR INTERSECTION VOLUMES

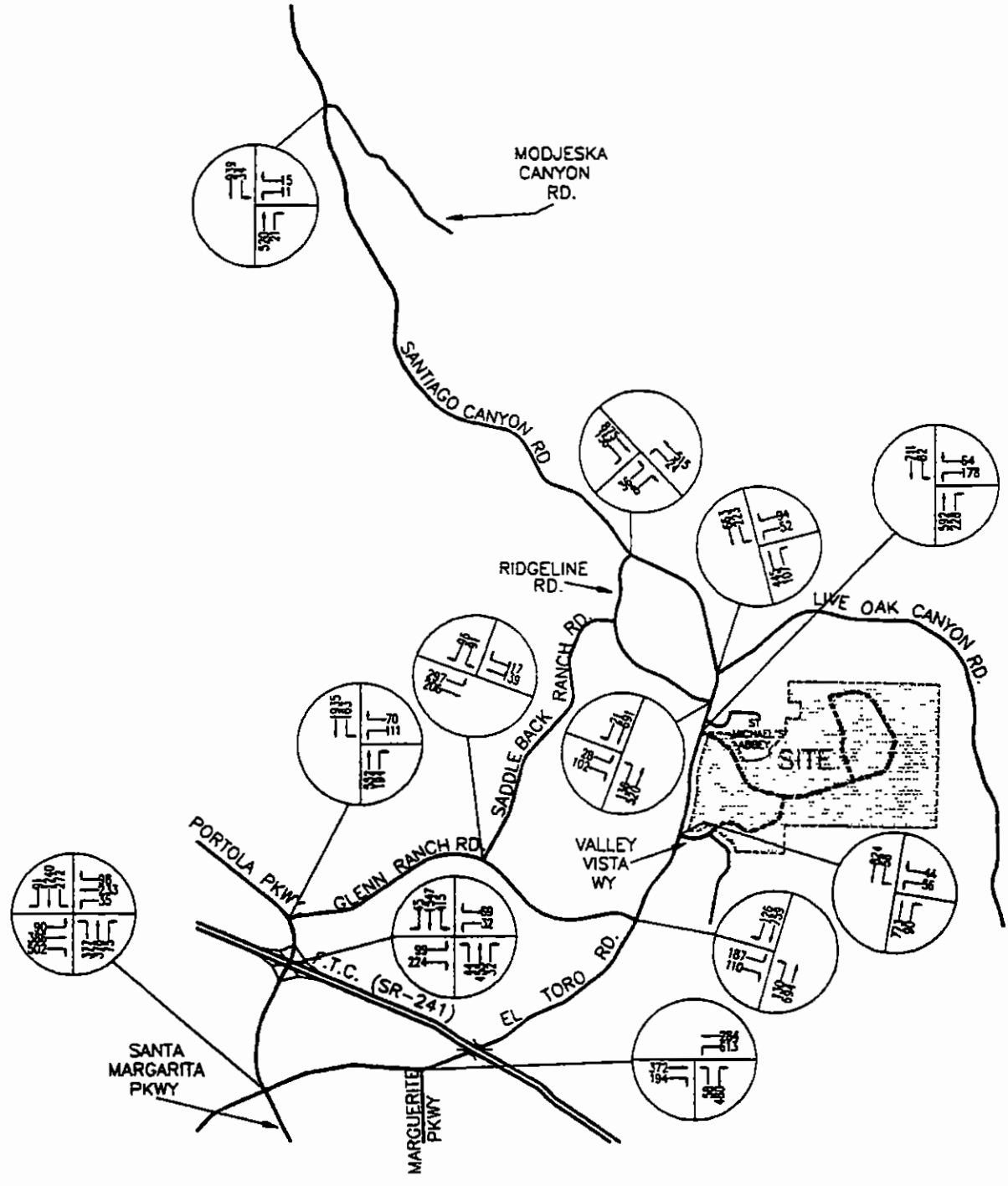

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TABLE 8

YEAR 2000 INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS WITHOUT PROJECT

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.86	0.69	D	B
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.87	0.72	D	C
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.80	0.60	C	A
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.70	0.62	B	B
• Valley Vista Way (EW)	0	1	1	1	1	0	0	0	0	0	1	0	0.67	0.52	B	A
• Glenn Ranch Rd. (EW)	1	1	0	0	1	1	1	0	1	0	0	0	0.62	0.75	B	C
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	1	2	0	0	2	1	0.59	0.70	A	B
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	1>	0	0	0	0	2	0	2	2	0	0.49	0.73	A	C
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	0	3	1	2	3	0	0	0	0	2	0	1	0.90	0.75	D	C
• Foothill Trans. Corridor (EW)	2	2	1>>	1	2	1>>	1	0	1>>	1	0	1>>	0.73	0.87	C	D
• El Toro Rd. (EW)	2	4	1	2	3	1	1	3	1>>	1	3	1	0.80	0.79	C	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

turning movement volumes without the project are shown on Exhibits Z and AA, respectively.

As shown in Table 8, intersections in the vicinity of the site are projected to operate at Level of Service "D" or better during the peak hours without the proposed project, without improvements. ICU calculation worksheets are included in Appendix "E". A traffic signal is projected to be warranted at the intersection of Santiago Canyon Road/Modjeska Canyon Road for Year 2000 without project traffic conditions (see Appendix "I").

2. Level of Service at Year 2000 With Project

Intersection Capacity Utilization (ICU) for Year 2000 traffic conditions with the project have been calculated and are shown in Tables 9 and 10. Table 9 shows ICU calculations at the study area intersections with the project, without improvements. ICU calculations with the project and with improvements are shown in Table 10. Year 2000 AM and PM peak hour turning movement volumes with the project are shown on Exhibits BB and CC, respectively.

As shown in Table 10, intersections in the vicinity of the site are projected to operate at Level of Service "D" or better during the peak hours with the proposed project, with site access improvements. ICU calculation worksheets are included in Appendix "F".

EXHIBIT Z
YEAR 2000 AM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT

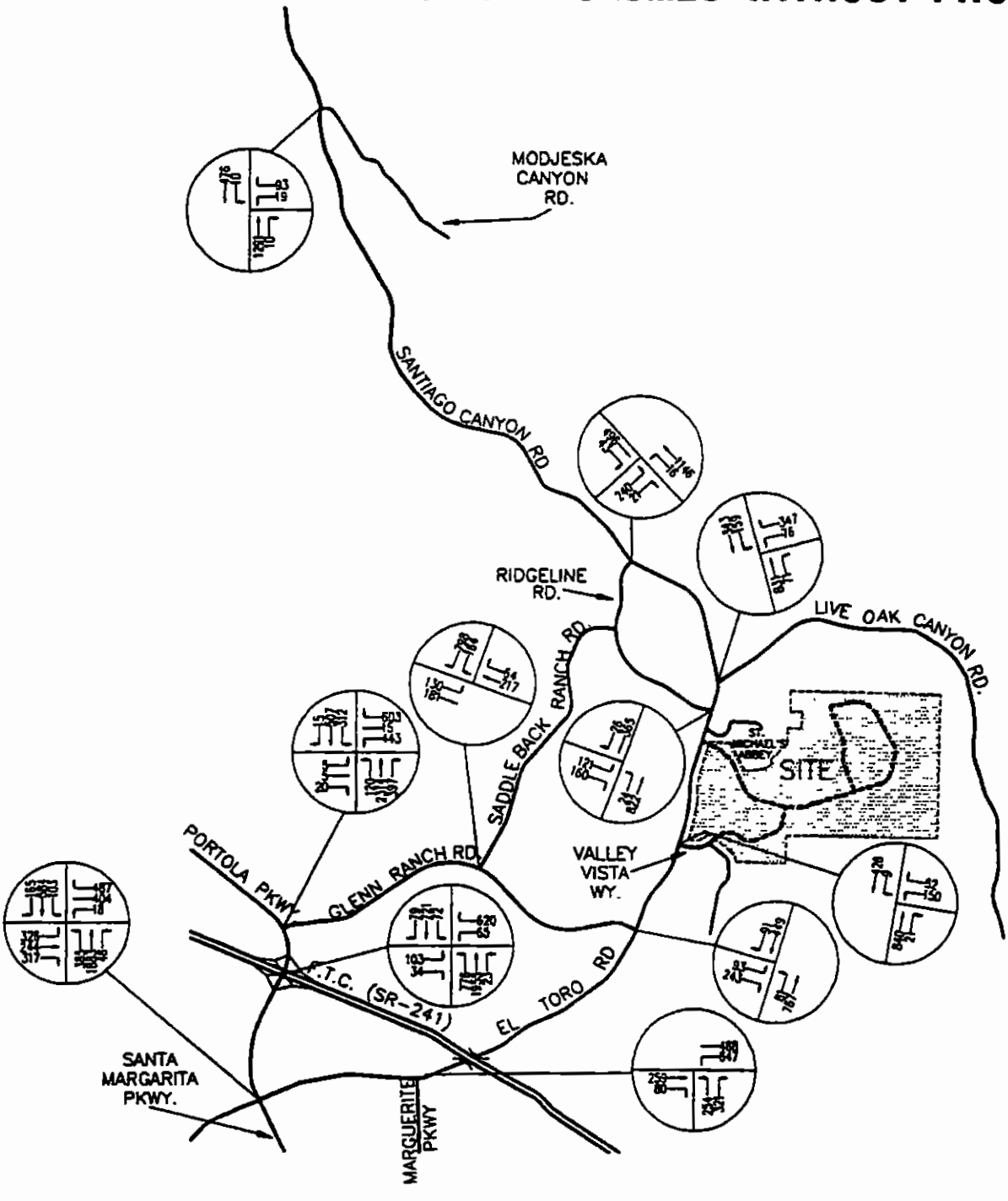

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EXHIBIT AA
YEAR 2000 PM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT

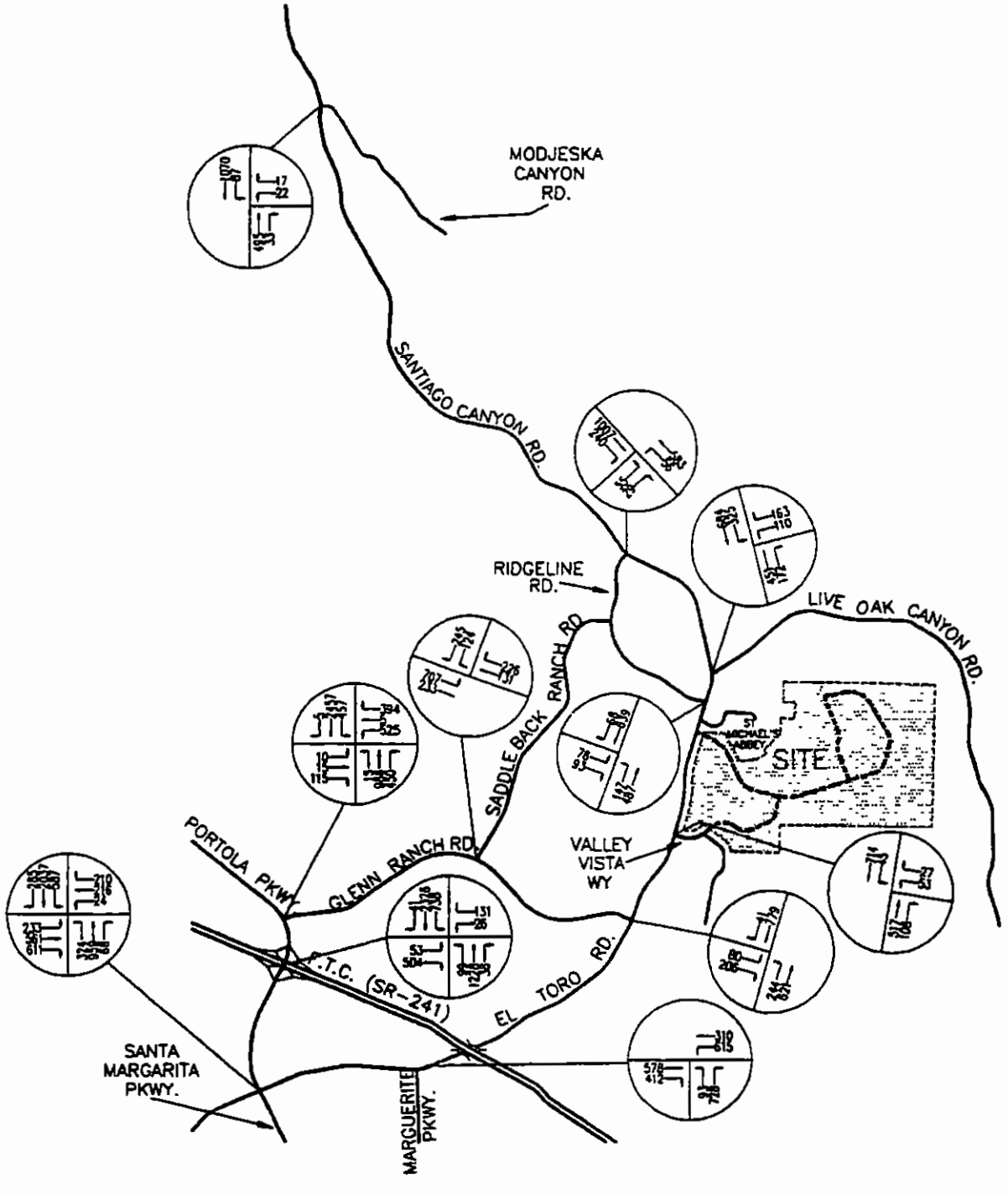

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TABLE 9

YEAR 2000 INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS WITH PROJECT, WITHOUT IMPROVEMENTS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.90	0.74	D	C
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.92	0.78	E	C
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.84	0.63	D	B
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.75	0.69	C	B
• Project Entrance (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.74	0.62	C	B
• Valley Vista Way (EW)	0	1	1	1	1	0	0	0	0	0	1	0	0.73	0.65	C	B
• Glenn Ranch Rd. (EW)	1	1	0	0	1	1	1	0	1	0	0	0	0.65	0.83	B	D
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	1	2	0	0	2	1	0.63	0.71	B	C
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	1>	0	0	0	0	2	0	2	2	0	0.52	0.79	A	C
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	2	3	1	2	3	1	1	1.5	1.5	2	1	1	0.93	0.76	E	C
• Foothill Trans. Corridor (EW)	2	2	1>>	1	2	1>>	-1	0	1>>	1	0	1>>	0.74	0.90	C	D
• El Toro Rd. (EW)	2	4	1	2	3	1	1	3	1>>	1	3	1	0.81	0.80	D	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

TABLE 10

YEAR 2000 INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS WITH PROJECT, WITH IMPROVEMENTS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.90	0.74	D	C
• Ridgeline Rd. (EW)	1	2	0	0	1	1	0	1	0	0	0	0	0.56	0.78	A	C
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.84	0.63	D	B
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.75	0.69	C	B
• Project Entrance (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.74	0.62	C	B
• Valley Vista Way (EW)	0	1	1	1	1	0	0	0	0	0	1	0	0.73	0.65	C	B
• Glenn Ranch Rd. (EW)	1	1	0	0	1	1	1	0	1	0	0	0	0.65	0.83	B	D
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	1	2	0	0	2	1	0.63	0.71	B	C
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	1>	0	0	0	0	2	0	2	2	0	0.52	0.79	A	C
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	2	3	1	2	3	1	1	1.5	1.5	2	1	1>	0.85	0.75	D	C
• Foothill Trans. Corridor (EW)	2	2	1>>	1	2	1>>	1	0	1>>	1	0	1>>	0.74	0.90	C	D
• El Toro Rd. (EW)	2	4	1	2	3	1	1	3	1>>	1	3	1	0.81	0.80	D	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap
2 = Lane Improvement

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

EXHIBIT BB
YEAR 2000 AM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT

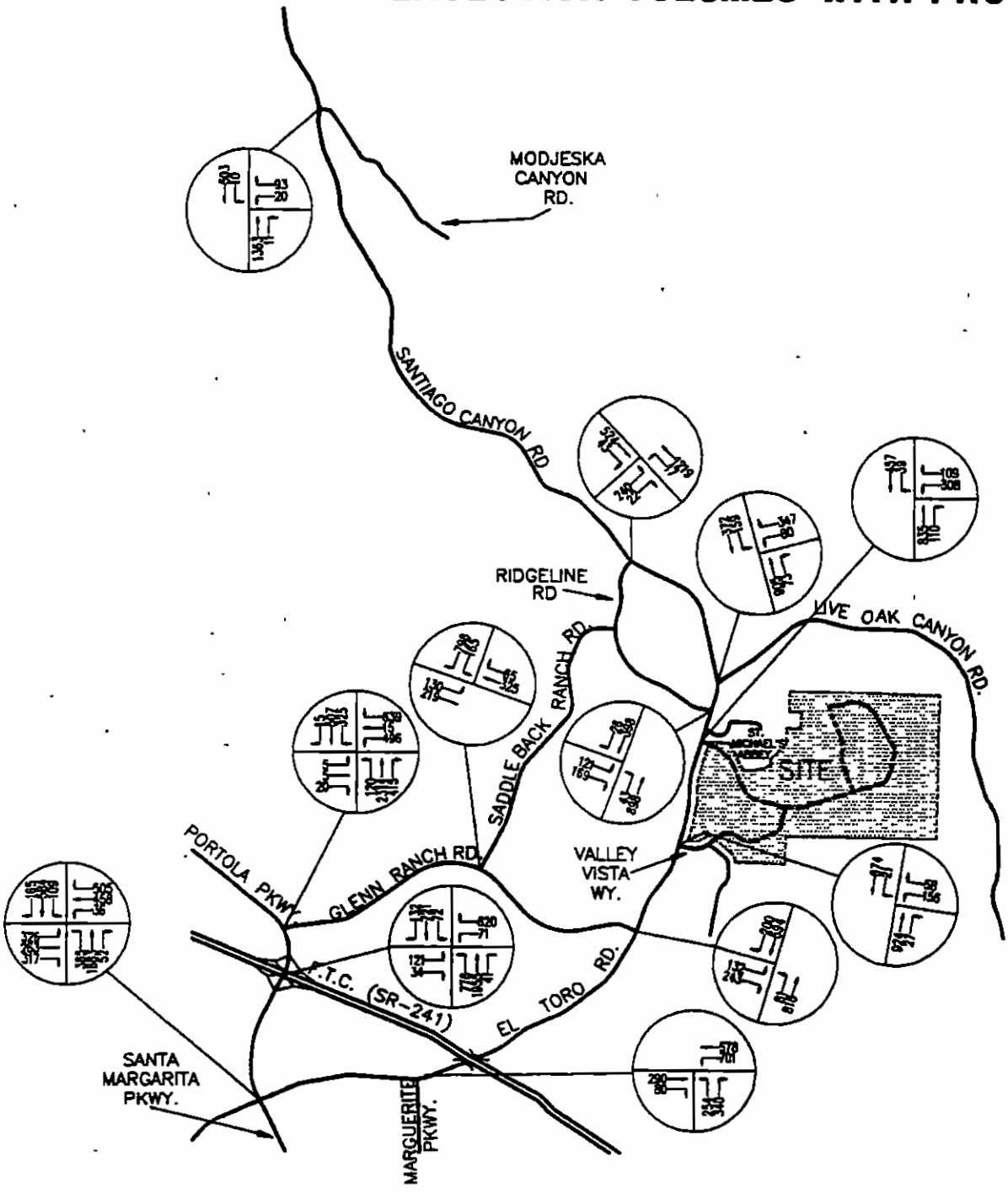

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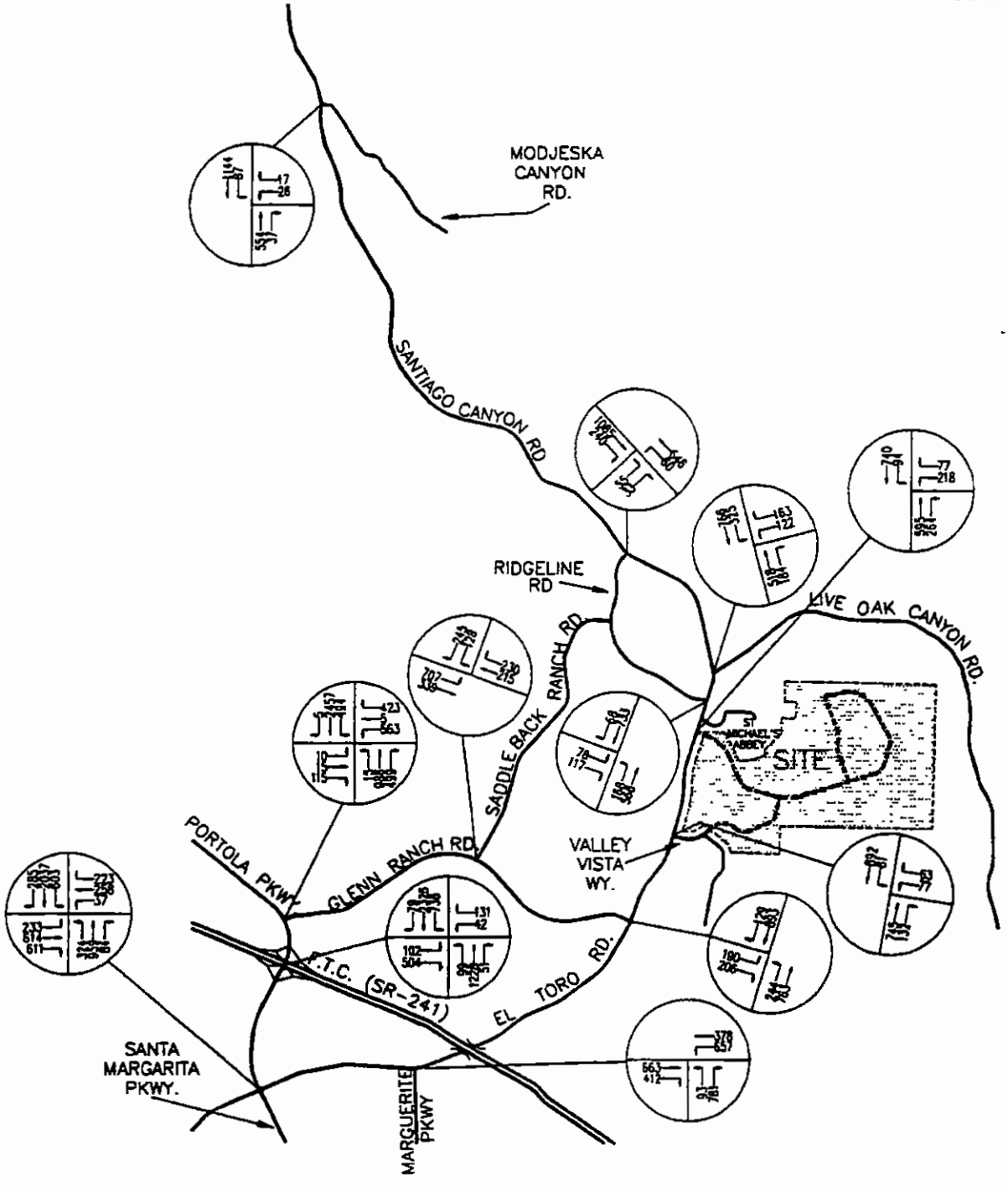
EXHIBIT CC
YEAR 2000 PM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT



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C. Capacity and Level of Service and Improvement Analysis, Year 2020

1. Level of Service at Year 2020 Without Project

Intersection Capacity Utilization (ICU) for Year 2020 traffic conditions without the project have been calculated and are shown in Tables 11 and 12. Table 11 shows ICU calculations at the study area intersections without the project, without improvements. ICU calculations without the project and with improvements are shown in Table 12. Year 2020 AM and PM peak hour turning movement volumes without the project are shown on Exhibits DD and EE, respectively.

As shown in Table 12, intersections in the vicinity of the site are projected to operate at Level of Service "D" or better during the peak hours without the proposed project, with improvements that include the ultimate widening of El Toro Road and Santiago Canyon Road to four through travel lanes (two in each direction). ICU calculation worksheets are included in Appendix "G".

2. Level of Service at Year 2020 With Project

Intersection Capacity Utilization (ICU) for Year 2020 traffic conditions with the project have been calculated and are shown in Tables 13 and 14. Table 13 shows ICU calculations at the study area intersections with the project, without improvements. ICU calculations with the project and with improvements are shown in Table 14. Year 2020 AM and PM peak hour turning movement volumes with the project are shown on Exhibits FF and GG, respectively.

TABLE 11

YEAR 2020 INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS WITHOUT PROJECT, WITHOUT IMPROVEMENTS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	1.16	1.00	F	E
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	1.18	0.98	F	E
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	1.07	0.79	F	C
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.89	0.92	D	E
• Valley Vista Way (EW)	0	1	1	1	1	0	0	0	0	0	1	0	0.87	0.79	D	C
• Glenn Ranch Rd. (EW)	1	1	0	0	1	1	1	0	1	0	0	0	0.94	1.24	E	F
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	1	2	0	0	2	1	0.77	0.96	C	E
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	1>	0	0	0	0	2	0	2	2	0	0.74	1.33	C	F
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	2	3	1	2	3	1	1	1.5	1.5	2	1	1	1.21	1.04	F	F
• Foothill Trans. Corridor (EW)	2	2	1>>	1	2	1>>	1	0	1>>	1	0	1>>	1.04	1.44	F	F
• El Toro Rd. (EW)	2	4	1	2	3	1	1	3	1>>	1	3	1	1.20	1.14	F	F

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

TABLE 12

YEAR 2020 INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS WITHOUT PROJECT, WITH IMPROVEMENTS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.66	0.54	B	A
• Ridgeline Rd. (EW)	1	2	0	0	2	1	0	1	0	0	0	0	0.72	0.56	C	A
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.74	0.60	C	A
• Ridgeline Rd. (EW)	1	2	0	0	2	1	0	1	0	0	0	0	0.59	0.62	A	B
• Valley Vista Way (EW)	0	2	1	1	2	0	0	0	0	0	1	0	0.53	0.45	A	A
• Glenn Ranch Rd. (EW)	1	2	0	0	2	1	1	0	1>	0	0	0	0.54	0.82	A	C
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	2	2	0	0	2	1	0.72	0.69	C	B
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	2>	0	0	0	0	3	1>	2	3	0	0.85	0.78	B	C
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	2	3	1>	2	3	1	1	1.5	1.5	3	1	1>>	0.90	0.88	D	D
• Foothill Trans. Corridor (EW)	2	3	1>>	2	3	1>>	1	0	1>>	1	0	1>>	0.75	0.88	C	D
• El Toro Rd. (EW)																
-W/Improvements	2	4	1	2	3	1	2	3	1>>	1	2	2>	0.84	0.95	D	E
-W/Additional Improvements	2	4	1	2	4	0	2	3	1>>	1	2	2>	0.84	0.87	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

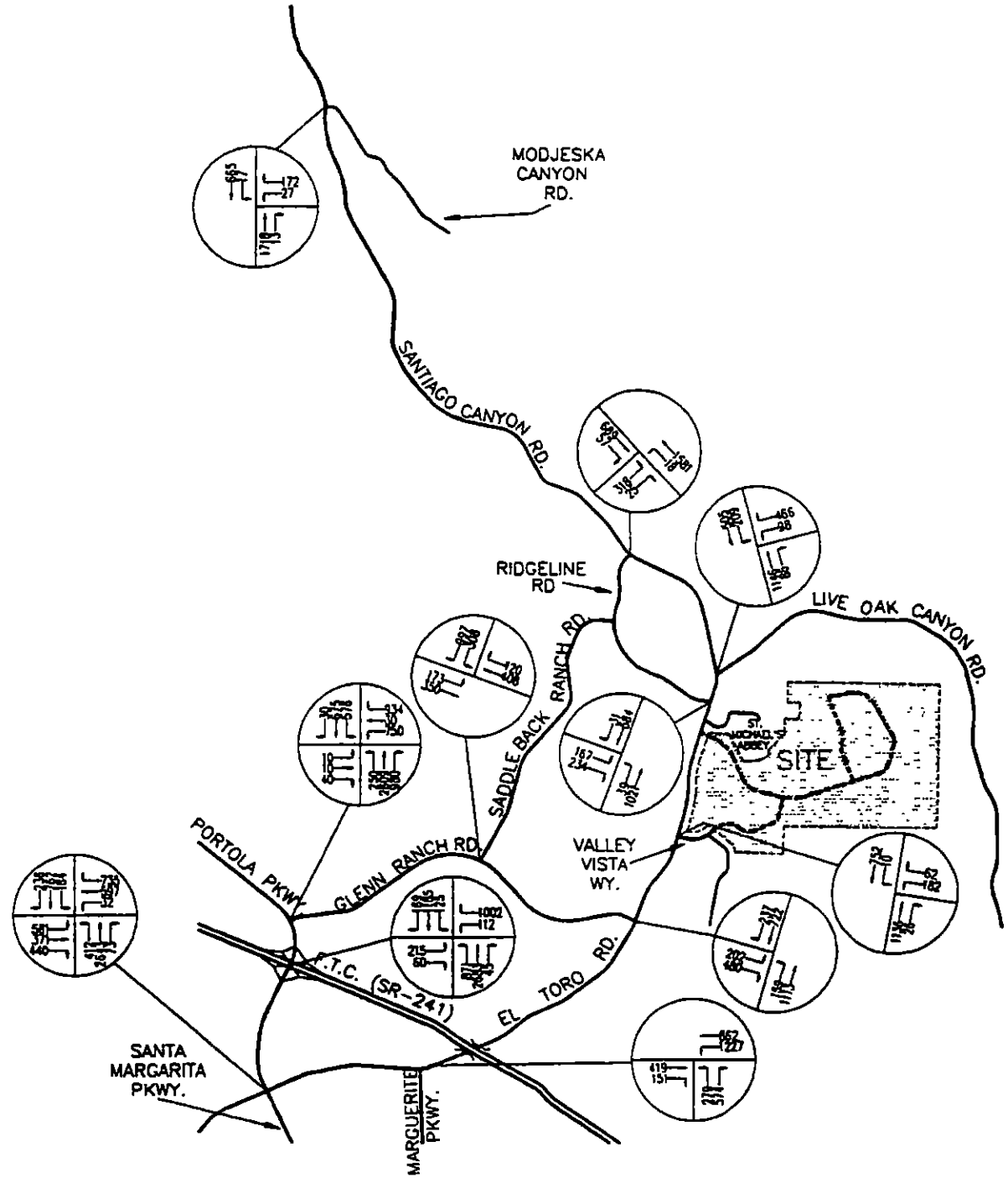
L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap
2 = Lane Improvement

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

EXHIBIT DD

YEAR 2020 AM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT



685-95-001.104A
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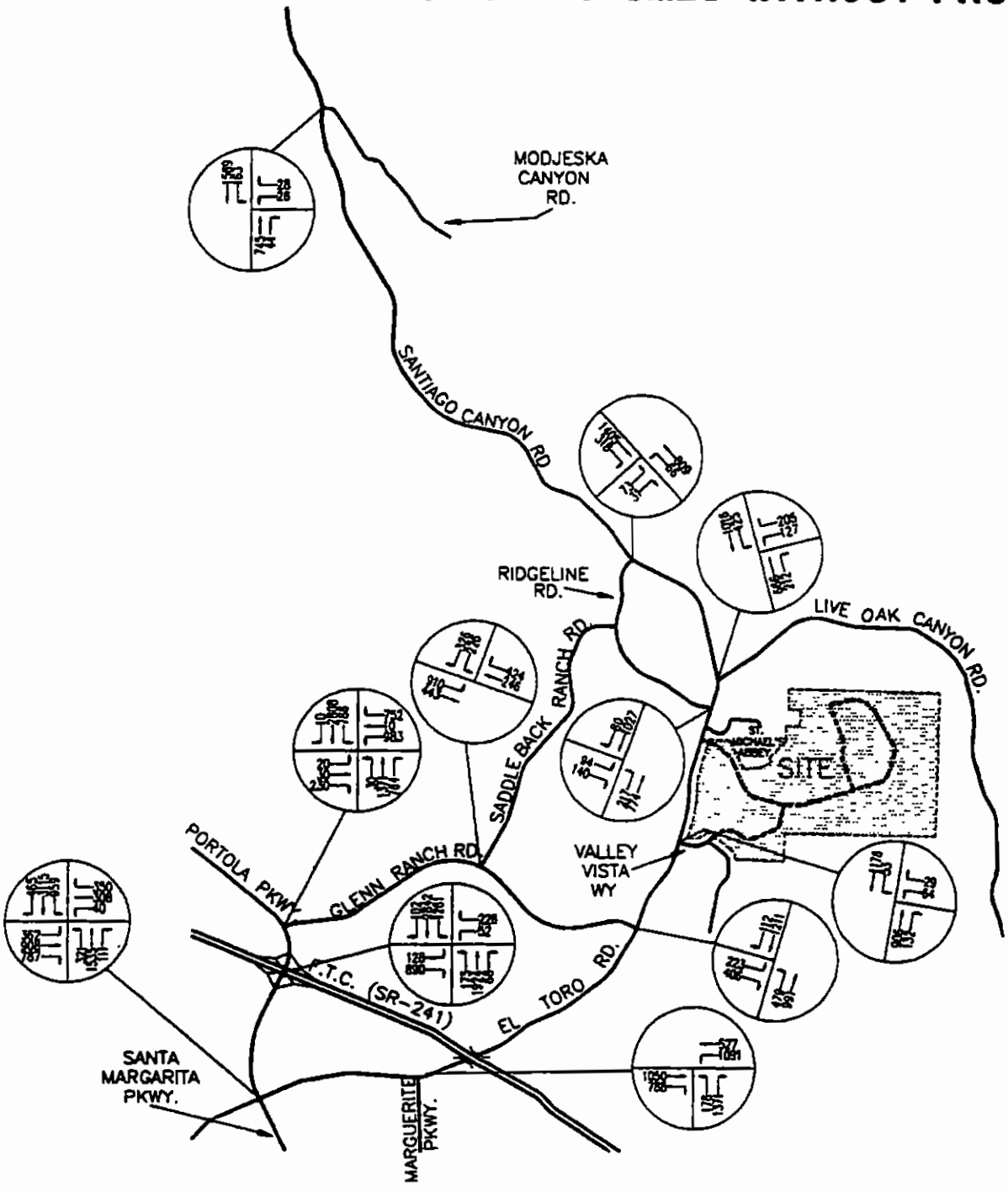
EXHIBIT EE
YEAR 2020 PM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT



685-95-001:105A
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TABLE 13

YEAR 2020 INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS WITH PROJECT, WITHOUT IMPROVEMENTS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	1.20	1.05	F	F
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	1.22	1.02	F	F
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	1	1	1	1	0	0	0	0	1	0	1	1.12	0.83	F	D
• Ridgeline Rd. (EW)	1	1	0	0	1	1	0	1	0	0	0	0	0.94	1.00	E	E
• Project Entrance (EW)	0	1	1	1	1	0	0	0	0	1	0	1	0.90	0.88	D	D
• Valley Vista Way (EW)	0	1	1	1	1	0	0	0	0	0	1	0	0.93	0.94	E	E
• Glenn Ranch Rd. (EW)	1	1	0	0	1	1	1	0	1	0	0	0	0.97	1.31	E	F
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	1	2	0	0	2	1	0.80	0.96	C	E
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	1>	0	0	0	0	2	0	2	2	0	0.77	1.38	C	F
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	2	3	1	2	3	1	1	1.5	1.5	2	1	1	1.22	1.10	F	F
• Foothill Trans. Corridor (EW)	2	2	1>>	1	2	1>>	1	0	1>>	1	0	1>>	1.05	1.46	F	F
• El Toro Rd. (EW)	2	4	1	2	3	1	1	3	1>>	1	3	1	1.21	1.14	F	F

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

TABLE 14

YEAR 2020 INTERSECTION LEVELS OF SERVICE AND LANE GEOMETRICS WITH PROJECT, WITH IMPROVEMENTS

INTERSECTION	INTERSECTION APPROACH LANES[1]												PEAK HOUR ICU[2]		PEAK HOUR LOS[3]	
	NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Santiago Cyn. Rd. (NS) at:																
• Modjeska Cyn. Rd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.68	0.56	B	A
• Ridgeline Rd. (EW)	1	2	0	0	2	1	0	1	0	0	0	0	0.74	0.59	C	A
El Toro Rd. (NS) at:																
• Live Oak Cyn. Rd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.76	0.62	C	B
• Ridgeline Rd. (EW)	1	2	0	0	2	1	0	1	0	0	0	0	0.61	0.67	B	B
• Project Entrance (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.58	0.53	A	A
• Valley Vista Way (EW)	0	2	1	1	2	0	0	0	0	0	1	0	0.57	0.54	A	A
• Glenn Ranch Rd. (EW)	1	2	0	0	2	1	2	0	1>	0	0	0	0.56	0.82	A	D
Saddleback Ranch Rd. (NS) at:																
• Glenn Ranch Rd. (EW)	0	0	0	2	0	1	2	2	0	0	2	1	0.75	0.69	C	B
Marguerite Pkwy. (NS) at:																
• El Toro Rd. (EW)	1	0	2>	0	0	0	0	3	1>	2	3	0	0.68	0.79	B	C
Portola Pkwy. (NS) at:																
• Glenn Ranch Rd. (EW)	2	3	1>	2	3	1	1	1	2	3	1	1>>	0.90	0.87	D	D
• Foothill Trans. Corridor (EW)	2	3	1>>	2	3	1>>	1	0	1>>	1	0	1>>	0.76	0.90	C	D
• El Toro Rd. (EW)																
-W/Improvements	2	4	1	2	3	1	2	3	1>>	1	2	2>	0.88	0.97	D	E
-W/Additional Improvements	2	4	1	2	4	0	2	3	1>>	1	2	2>	0.86	0.89	D	D

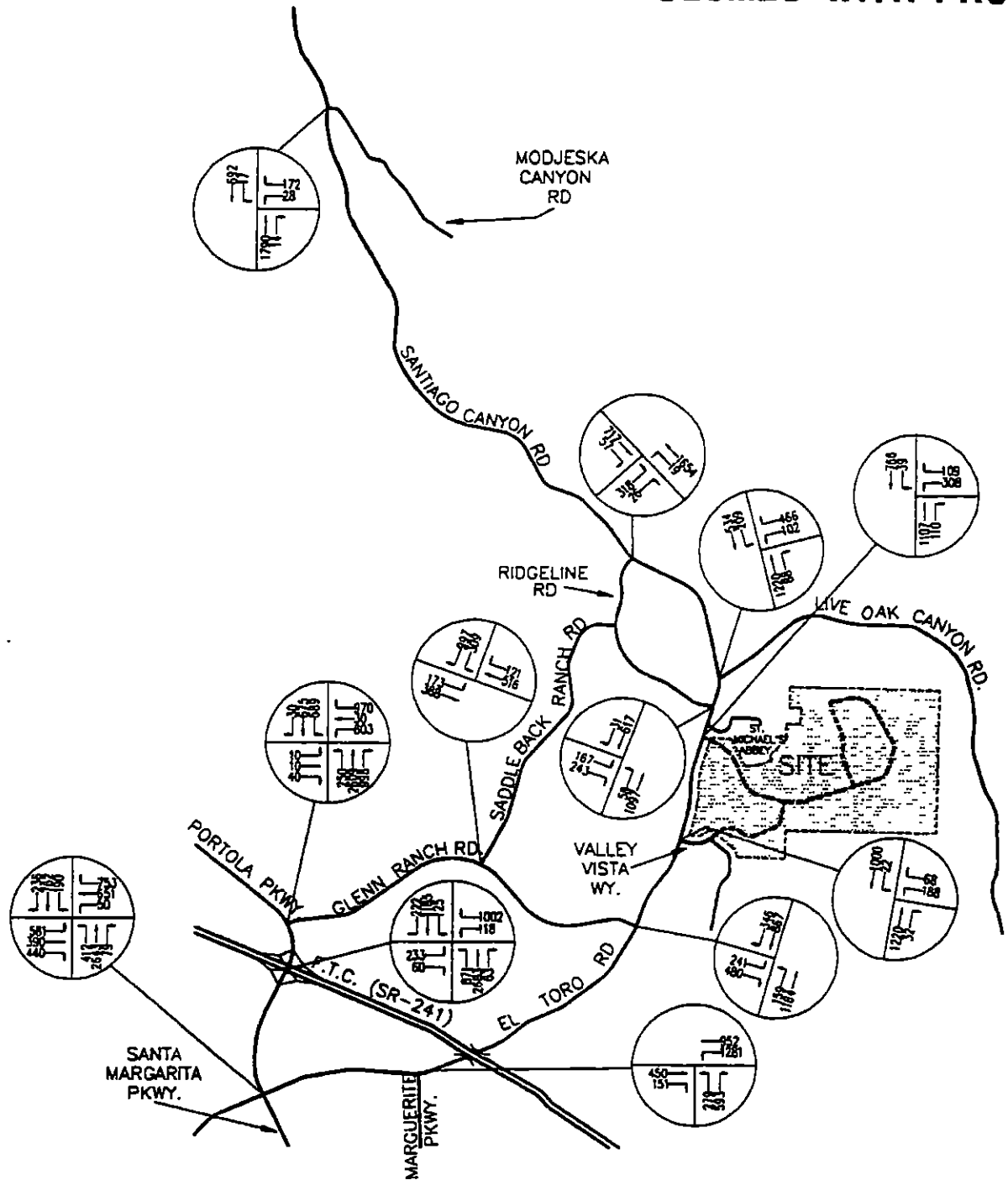
[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap
2 = Lane Improvement

[2] Intersection Capacity Utilization (ICU)

[3] Level of Service (LOS)

EXHIBIT FF
YEAR 2020 AM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT



685-95-001J05A
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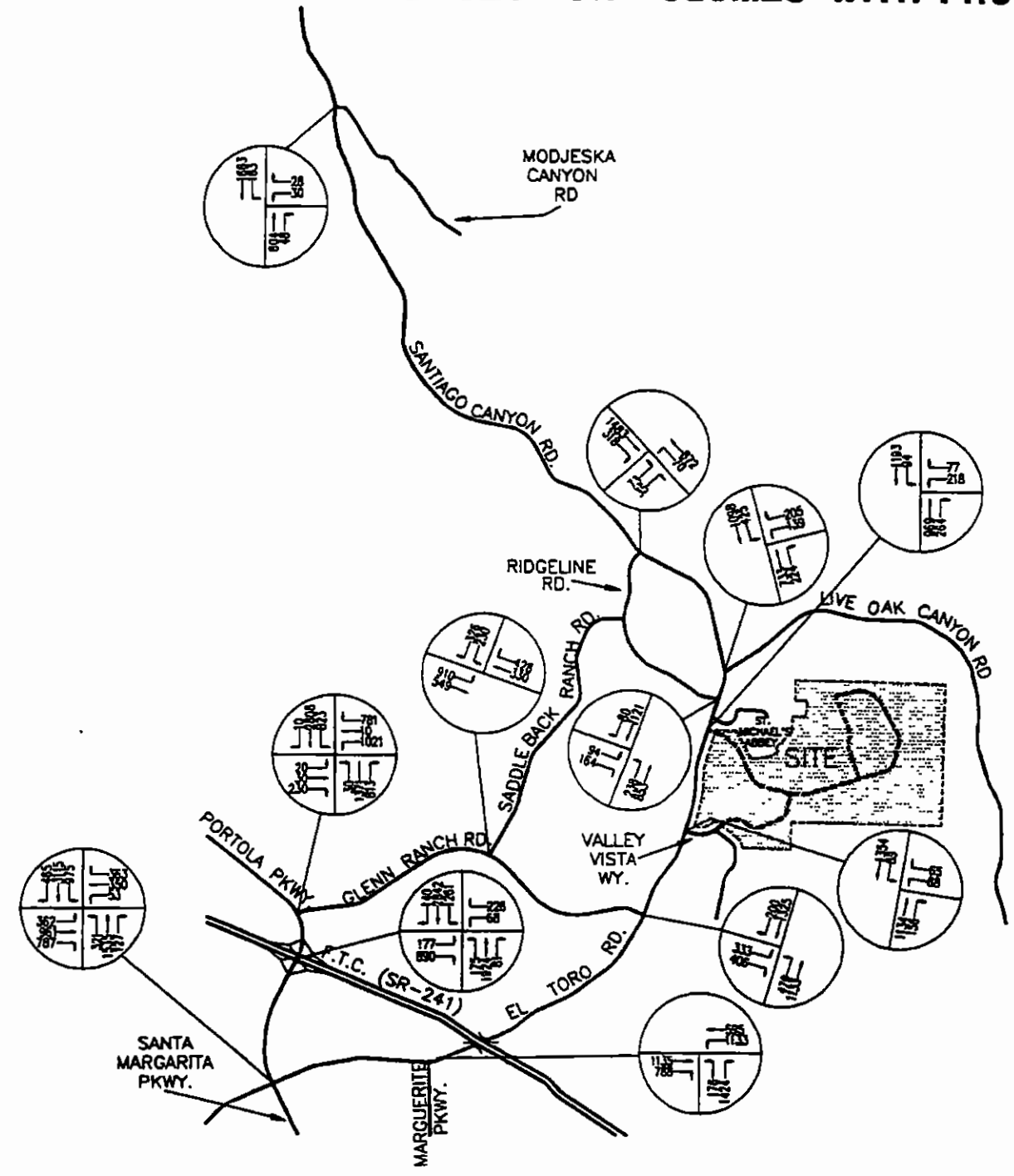
EXHIBIT GG
YEAR 2020 PM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT



885-95-001.107A
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As shown in Table 14, intersections in the vicinity of the site are projected to operate at Level of Service "D" or better during the peak hours with the proposed project, with improvements that include the ultimate widening of El Toro Road and Santiago Canyon Road to four through travel lanes (two in each direction). ICU calculation worksheets are included in Appendix "H".

D. Santiago Canyon Road Analysis

Pursuant to the County of Orange Growth Management Plan (GMP), segments of Santiago Canyon Road are required to function at a Level of Service "C". Capacity improvements along Santiago Canyon Road will be required in conjunction with future growth to achieve Level of Service "C". The Santiago Canyon Road Major Thoroughfare and Bridge Fee Program has been designed to provide up to $34 million in improvements to Santiago Canyon Road from Chapman Avenue to Live Oak Canyon Road. However, the March, 1994 Project Report for improvements to Santiago Canyon Road indicates that the total cost of improvements is approximately $52.3 million for a "limited project" scenario. To address the difference between the ultimate cost of $52.3 million and the fee program allocation of $34 million, the project should provide an additional contribution beyond the payment of normal fees based upon its traffic share.

V. RECOMMENDATIONS

A. Site Access

The proposed project will have primary access to El Toro Road. The El Toro Road turn-lane improvements needed at the Project Entrance to serve Year 2000 conditions should be completed in conjunction with development. Secondary access will be provided via an access to Valley Vista Way.

It is anticipated that the main project access point to El Toro Road will require a traffic signal in conjunction with the first project phase (approximately 208 dwelling units). The project should provide this improvement as well as a southbound left turn lane and northbound right turn lane on El Toro Road at the project entry.

Traffic signing/striping should be implemented in conjunction with detailed construction plans for the project. Verification of adequate parking should be analyzed for the project site in conjunction with approval of the site plan.

B. Roadway Improvements

1. Off-Site

The project should participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program (FCPP), El Toro Road Fee Program and the Santiago Road Fee Program. Potential roadway fees for the Saddleback Meadows (TT 15230) development are shown in Table 15.

TABLE 15

POTENTIAL ROADWAY FEES

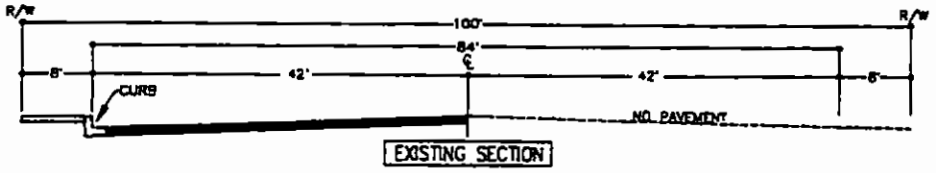
EXISTING ROAD FEE PROGRAMS	ROADWAYS TO BE CONSTRUCTED	ADOPTION DATE	RATES (EFFECTIVE FROM JULY 1, 1996 THROUGH JUNE 30, 1997)	APPROXIMATE PROJECT FEES (705 DU's AND 20,000 SQ. FT.)
1. Eastern/Foothill Transportation Corridor Road Fee Program (Zone A)	Portion of the cost of the future Eastern/Foothill Transportation Corridor from the Southern Orange County line at Interstate Route 5 to the Riverside Freeway (State Route 91).	Oct., 1984	$3,594/DU $4.99/Sq. Ft. Commercial	$2,533,770.00 $99,800.00
2. Santiago Canyon Road Major Thoroughfare and Bridge Fee Program	Improvements of Santiago Canyon Road from Chapman Avenue to Live Oak Canyon Road to its Master Plan of Arterial Highways designation as a primary arterial highway.	Aug., 1990	$510/DU $0.45/Sq. Ft. Commercial	$359,550.00 $9,000.00
3. El Toro Road Fee Program	Widen El Toro Road from a two lane to four lane highway from Live Oak Canyon Road to Trabuco Road.	Oct., 1983	$1,026/DU $59,498/Acre Commercial	$723,330.00 $101,148.60
4. Foothill Circulation Phasing Program (FCPP), Including Special FTC Fees (Zone 4)	Provides for a Backbone System of arterial highways and intersection improvements in the northern El Toro area. Roadways to be constructed include the extension of Portola Parkway/Santa Margarita Parkway (with the FTC), Bake Parkway, Oso Parkway, Alicia Parkway, Sand Canyon, Jeffrey, Irvine Boulevard/Trabuco Road and various intersection upgrades.	Oct., 1987	$2,759/DU $155/DU $2.463/Sq. Ft. Commercial $0.140/Sq. Ft. Commercial	$1,945,095.00 $109,275.00 $49,660.00 $2,800.00
TOTAL	--	--		$5,933,426.60

Both existing traffic patterns and SCTM traffic projections for Years 2000 and 2020 indicate the attraction of Glenn Ranch Road, Portola Parkway, and the Foothill Transportation Corridor (SR-241) for increased traffic volumes in the project study area.

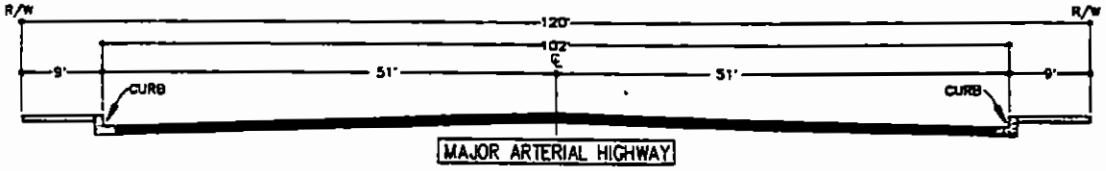
North of the Foothill Transportation Corridor, El Toro Road can accommodate cumulative Year 2020 traffic volumes with the proposed project on four travel lanes divided by a raised or striped median. Exhibit HH illustrates the alternative cross-sections for El Toro Road in the vicinity of the project. Implementation of a full Major arterial cross-section (six lanes divided) is not needed to serve future traffic volumes. Exhibit HH depicts an alternative section which would provide four travel lanes along El Toro Road divided by a striped median. This alternative section represents a modification of the typical cross-section for a Primary arterial. Appropriate transitions would be required between this cross-section and other modified cross-sections along El Toro Road south of Glenn Ranch Road.

Table 16 depicts the project share of peak hour traffic along segments of Santiago Canyon Road. The residential project peak hour traffic increases range from 5.8 percent during the AM peak hour traffic north of Ridgeline Road, to 9.2 percent of PM peak hour traffic between Live Oak Canyon Road and Ridgeline Road. The commercial project peak hour traffic increases range from 0.2 percent during the AM peak hour traffic north of Modjeska Canyon Road, to 2.5 percent of PM peak hour traffic between Live Oak Canyon Road and Ridgeline Road. Pursuant to the County of Orange Growth Management Plan (GMP) and discussions with Environmental Management Agency staff, it has been determined that the project should contribute a fee beyond the normal Santiago

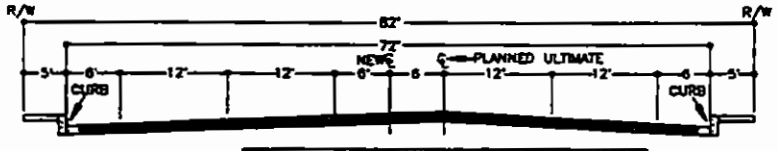
EXHIBIT HH
EL TORO ROAD CROSS-SECTIONS



EXISTING SECTION



MAJOR ARTERIAL HIGHWAY



ALTERNATIVE SECTION RECOMMENDED BY RKJK

TABLE 16

SANTIAGO CANYON ROAD PROJECT SHARE ANALYSIS

VOLUME COMPONENT	ROADWAY SEGMENT					
	LIVE OAK CYN. RD. TO RIDGELINE RD.		RIDGELINE RD. TO MODJESKA CYN. RD.		NORTH OF MODJESKA CYN. RD.	
	AM	PM	AM	PM	AM	PM
Existing Volume (two-way)	1,478	1,276	1,640	1,441	1,650	1,375
Project Volume (two-way)						
• Residential	95	117	95	117	95	117
• Commercial[1]	8	32	6	24	4	16
Project Increases						
• Residential	6.4%	9.2%	5.8%	8.1%	5.8%	8.5%
• Commercial	0.5%	2.5%	0.4%	1.7%	0.2%	1.2%

[1] Includes pass-by/diverted traffic reduction.

Canyon Road Major Thoroughfare and Bridge Fee Program to address ultimate improvement requirements based upon the project's fare share traffic contribution. The difference between the long range improvement costs for Santiago Canyon Road and the amount estimated to be provided by the Santiago Canyon Road Major Thoroughfare and Bridge Fee Program is approximately $18,300,000. A conservative estimate of the project's residential traffic share is approximately 7.3 percent based upon the values presented in Table 16. This amounts to a residential project contribution of $1,335,900, which in turn equates to a fee per dwelling unit of $1,895. The project should therefore participate in a supplemental fee contribution to Santiago Canyon Road of $1,895 per dwelling unit. A conservative estimate of the project's commercial traffic share is approximately 1.1 percent based upon the values presented in Table 16. This amounts to a commercial project contribution of $201,300, which in turn equates to a fee per square foot of $10.07. The project commercial area should therefore participate in a supplemental fee contribution to Santiago Canyon Road of $10.07 per square foot.

2. <u>On-Site</u>

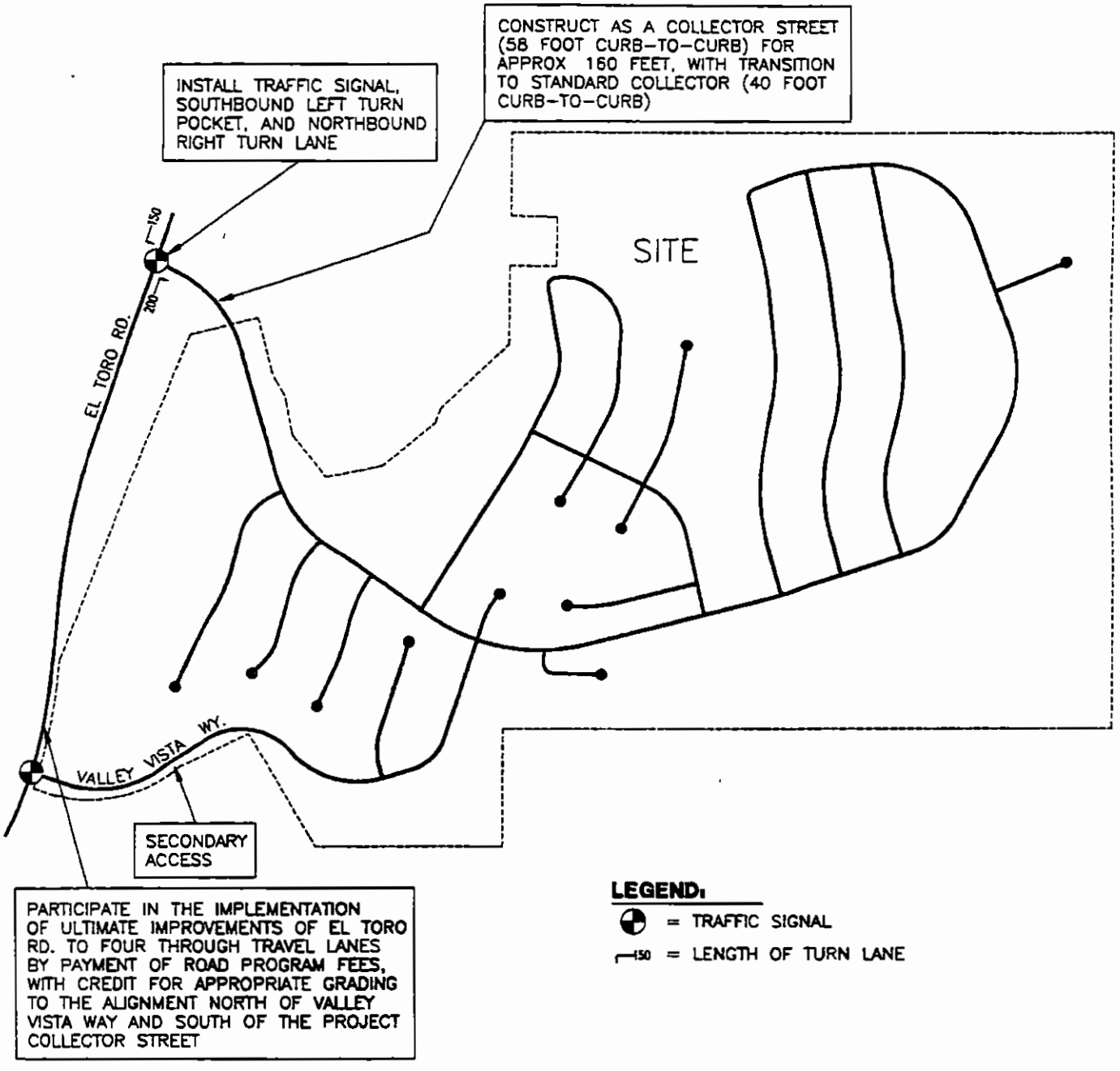
In order to accommodate the anticipated traffic and the potential traffic signal, it is recommended that the entry street to Saddleback Meadows (TT 10692) be designed as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12 foot exiting lanes and two 12 foot entering lanes with a 10 foot median. The Collector cross-section should be maintained for approximately 160 feet where it could then be transitioned to a standard

40 foot wide curb-to-curb width Collector roadway, as shown on Exhibit II.

Traffic signing/striping should be implemented in conjunction with detailed construction plans for the project. Verification of adequate parking should be analyzed for the project site in conjunction with approval of the site plan.

Sight distance at each of the project access intersections should be reviewed with respect to Standard Plan Number 1117 (see Appendix "J") in conjunction with the preparation of precise grading and landscape plans.

EXHIBIT II
CIRCULATION RECOMMENDATIONS



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APPENDIX A

LEVEL OF SERVICE DESCRIPTION

LEVEL OF SERVICE - DEFINITIONS*

Service Level	General Definition	Freeways Criteria for measurement: Density (cars per lane-mile)	Arterials Criteria for measurement: Average travel speed (mph)
A	Free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.	Free flow operations. Average travel speeds near 60 mph generally prevail on 70-mph freeway elements. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The average spacing between vehicles is about 440 ft, or 22 car-lengths, with a maximum density of 12 cars/mi/ln. The effects of minor incidents or breakdowns are easily absorbed at this level. Although they may cause a deterioration in LOS in the vicinity of the incident, standing queues will not form, and traffic quickly returns to LOS A on passing the disruption.	Primarily free flow-operations at average travel speeds usually within 90 percent of the free flow speed. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.	Reasonably free-flow conditions, and speeds of over 57 mph are maintained on 70-mph freeway elements. The average spacing between vehicles is about 260 ft, or 13 car-lengths, with a maximum density of 20 cars/mi/ln. The ability to maneuver within the traffic stream is only slightly restricted. The effects of minor incidents and breakdowns are still easily absorbed, though local deterioration in service would be more severe than for LOS A.	Unimpeded operations at average travel speeds usually within 70 percent of the free flow speed. The ability to maneuver within the traffic stream is slightly restricted and stopped delays are not bothersome.
C	Stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.	Stable operations, but flows approach the range in which small increases in flow will cause substantial deterioration in service. Average travel speeds are still over 54 mph. Freedom to maneuver within the traffic stream is noticeably restricted at LOS C, and lane changes require additional care and vigilance by the driver. Average spacings are in the range of 175 ft, or 9 car-lengths, with a maximum density of 30/cars/mi/ln. Minor incidents may still be absorbed, but the local deterioration in service will be substantial. Queues may be expected to form behind any significant blockage. Additional vigilance by driver required for safe operation.	Stable operations. Ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50 percent of the average free flow speed.

D	High-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.	Borders on unstable flow. In this range, small increases in flow cause substantial deterioration in service. Average travel speeds of 46 mph or more can still be maintained on 70-mph freeway elements. Freedom to maneuver within the traffic stream is severely limited. Even minor incidents can be expected to create substantial queuing, because the traffic stream has little space to absorb disruptions. Average spacings are about 125 ft, or 6 car-lengths, with a maximum density of 42 cars/mi/ln.	Borders on a range on which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free flow speed.
E	Operating conditions at or near the capacity level. All speeds are reduced to a low but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.	The boundary between LOS D and LOS E describes operation at capacity. Operations in this level are extremely unstable, because there are virtually no usable gaps in the traffic stream. Vehicles are spaced at approximately 80 ft, or 4 car-lengths, at relatively uniform headways. This, however, represents the minimum spacing at which stable flow can be accommodated. Any disruption to the traffic stream, such as a vehicle entering from a ramp, or a vehicle changing lanes, causes following vehicles to give way to admit the vehicle. At capacity, the traffic stream has no ability to dissipate even the most minor disruptions. Any incident can be expected to produce a serious breakdown with extensive queuing. The range of flows encompassed by LOS E is relatively small compared to other levels, but reflects a substantial deterioration in service. Maneuverability within the traffic stream is extremely limited. Average travel speeds at capacity are approximately 30 mph.	Significant approach delays and average travel speeds of one-third the free flow speed or lower. Such operations are caused by some combination or adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.
F	Level-of-service F. Forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Arrival flow exceeds discharge flow.	Level F describes forced or breakdown flow. Such conditions generally exist within queues forming behind breakdown points. Breakdown occurs when the ratio of actual arrival flow rate to actual capacity or the forecasted flow rate to estimated capacity exceeds 1.00. Operations at such a point will generally be at or near capacity, and downstream operations may be better as vehicles pass the bottleneck (assuming that there are no additional downstream problems). The LOS F operations observed within a queue are the result of a breakdown or bottleneck at a downstream point.	Arterial flow at extremely low speeds below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse progression is frequently a contributor to this condition.

*Source: "Highway Capacity Manual, Special Report 209"
Transportation Research Board, Washington D.C., 1985

APPENDIX B

TRAFFIC COUNT WORKSHEETS

Location: El Toro N/O Live Oak		Mission Viejo		Volumes for Tuesday 6/27/95			
AM Period	NB	SB		PM Period	NB	SB	
12:00–12:15	5	8		12:00–12:15	65	55	
12:15–12:30	5	3		12:15–12:30	36	29	
12:30–12:45	0	4		12:30–12:45	56	53	
12:45–1:00	2	5	32	12:45–1:00	56	46	396
1:00–1:15	9	6		1:00–1:15	48	48	
1:15–1:30	3	1		1:15–1.30	56	49	
1:30–1:45	5	2		1:30–1:45	53	58	
1:45–2:00	0	0	26	1:45–2:00	62	38	412
2:00–2:15	3	2		2:00–2:15	56	49	
2.15–2:30	0	2		2:15–2:30	68	57	
2:30–2:45	3	4		2:30–2:45	66	34	
2:45–3:00	3	4	21	2:45–3:00	55	60	445
3:00–3:15	3	0		3:00–3:15	89	69	
3:15–3 30	3	0		3:15–3:30	109	72	
3:30–3.45	3	3		3:30–3:45	95	78	
3:45–4:00	1	2	15	3:45–4:00	91	83	686
4:00–4:15	3	4		4:00–4:15	85	85	
4:15–4:30	6	4		4:15–4.30	84	133	
4.30–4:45	7	3		4:30–4:45	98	154	
4:45–5:00	7	4	38	4:45–5:00	70	163	872
5:00–5.15	11	5		5:00–5:15	81	164	
5:15–5:30	16	16		5:15–5:30	101	196	
5.30–5:45	32	26		5:30–5:45	78	216	
5:45–6:00	47	32	185	5:45–6:00	83	243	1162
6:00–6 15	58	60		6:00–6:15	78	222	
6:15–6:30	90	66		6:15–6:30	80	197	
6:30–6:45	148	139		6:30–6:45	68	158	
6:45–7:00	169	104	834	6:45–7:00	48	106	957
7:00–7:15	179	97		7:00–7.15	55	102	
7.15–7.30	253	103		7:15–7:30	51	83	
7.30–7:45	188	103		7:30–7:45	32	57	
7:45–8:00	185	80	1188	7:45–8:00	23	72	475
8:00–8:15	132	72		8:00–8:15	25	62	
8:15–8:30	118	69		8:15–8:30	40	58	
8:30–8:45	102	61		8:30–8:45	24	39	
8:45–9:00	80	57	691	8:45–9:00	20	38	306
9:00–9:15	63	56		9:00–9:15	23	24	
9:15–9:30	68	53		9:15–9:30	21	28	
9:30–9:45	45	43		9:30–9:45	28	27	
9:45–10:00	54	46	428	9:45–10:00	15	39	205
10:00–10:15	42	54		10:00–10:15	13	24	
10:15–10:30	62	55		10:15–10:30	17	21	
10:30–10:45	50	41		10:30–10:45	13	16	
10:45–11:00	41	34	379	10:45–11:00	13	16	133
11:00–11:15	62	58		11:00–11:15	7	15	
11:15–11:30	63	50		11:15–11:30	8	15	
11:30–11:45	64	46		11:30–11:45	2	8	
11:45–12:00	77	44	464	11:45–12:00	6	13	74
Total Volumes	2570	1731	4301		2451	3672	6123
Daily Totals					5021	5403	10424

Location: El Toro N/O Valley Vista Mission Viejo Volumes for Tuesday 6/27/95

AM Period	NB	SB		PM Period	NB	SB	
12:00–12:15	14	10		12:00–12:15	83	78	
12:15–12:30	8	9		12:15–12:30	68	77	
12:30–12:45	3	4		12:30–12:45	76	90	
12:45–1:00	9	6	63	12:45–1:00	85	65	622
1:00–1:15	7	4		1:00–1:15	77	75	
1:15–1:30	5	3		1:15–1:30	78	75	
1:30–1:45	10	4		1:30–1:45	65	70	
1:45–2:00	4	6	43	1:45–2:00	110	75	625
2:00–2:15	4	3		2:00–2:15	87	80	
2:15–2:30	1	2		2:15–2:30	89	87	
2:30–2:45	4	2		2:30–2:45	96	87	
2:45–3:00	3	4	23	2:45–3:00	94	88	708
3:00–3:15	3	2		3:00–3:15	100	120	
3:15–3:30	2	1		3:15–3:30	138	90	
3:30–3:45	3	2		3:30–3:45	116	95	
3:45–4:00	3	1	17	3:45–4:00	116	125	900
4:00–4:15	5	2		4:00–4:15	110	88	
4:15–4:30	5	3		4:15–4:30	126	120	
4:30–4:45	8	10		4:30–4:45	119	160	
4:45–5:00	7	15	55	4:45–5:00	113	155	991
5:00–5:15	15	15		5:00–5:15	128	168	
5:15–5:30	19	35		5:15–5:30	150	187	
5:30–5:45	33	45		5:30–5:45	143	205	
5:45–6:00	40	65	267	5:45–6:00	121	220	1322
6:00–6:15	51	75		6:00–6:15	126	187	
6:15–6:30	97	86		6:15–6:30	136	177	
6:30–6:45	125	125		6:30–6:45	120	135	
6:45–7:00	151	135	845	6:45–7:00	122	125	1128
7:00–7:15	176	155		7:00–7:15	87	87	
7:15–7:30	256	148		7:15–7:30	97	82	
7:30–7:45	226	160		7:30–7:45	86	82	
7:45–8:00	188	150	1459	7:45–8:00	74	80	675
8:00–8:15	159	155		8:00–8:15	87	78	
8:15–8:30	120	125		8:15–8:30	74	75	
8:30–8:45	127	120		8:30–8:45	70	67	
8:45–9:00	100	101	1007	8:45–9:00	53	55	559
9:00–9:15	78	90		9:00–9:15	64	45	
9:15–9:30	94	99		9:15–9:30	53	40	
9:30–9:45	54	88		9:30–9:45	72	45	
9:45–10:00	69	75	647	9:45–10:00	52	55	426
10:00–10:15	59	88		10:00–10:15	46	32	
10:15–10:30	63	85		10:15–10:30	54	40	
10:30–10:45	74	70		10:30–10:45	30	26	
10:45–11:00	68	77	584	10:45–11:00	29	25	282
11:00–11:15	73	60		11:00–11:15	26	25	
11:15–11:30	87	65		11:15–11:30	27	20	
11:30–11:45	82	75		11:30–11:45	15	16	
11:45–12:00	90	77	609	11:45–12:00	15	16	160
Total Volumes	2882	2737	5619		4103	4295	8398
Daily Totals					6985	7032	14017

Location: El Toro N/O Glenn Ranch Mission Viejo Volumes for Tuesday 6/27/95

AM Period	NB	SB		PM Period	NB	SB	
12:00–12:15	10	12		12:00–12:15	78	80	
12:15–12:30	13	8		12:15–12:30	84	74	
12:30–12:45	4	9		12:30–12:45	78	98	
12:45–1:00	12	8	76	12:45–1:00	95	61	648
1:00–1:15	4	4		1:00–1:15	84	76	
1:15–1:30	7	3		1:15–1:30	82	70	
1:30–1:45	8	8		1:30–1:45	85	89	
1:45–2:00	5	3	42	1:45–2:00	97	65	648
2:00–2:15	1	2		2:00–2:15	39	94	
2:15–2:30	1	4		2:15–2:30	97	79	
2:30–2:45	5	5		2:30–2:45	126	79	
2:45–3:00	4	2	24	2:45–3:00	90	97	701
3:00–3:15	2	0		3:00–3:15	127	108	
3:15–3:30	2	1		3:15–3:30	115	86	
3:30–3:45	5	3		3:30–3:45	142	91	
3:45–4:00	4	4	21	3:45–4:00	152	108	927
4:00–4:15	3	5		4:00–4:15	138	96	
4:15–4:30	6	5		4:15–4:30	144	128	
4:30–4:45	8	12		4:30–4:45	119	144	
4:45–5:00	0	18	57	4:45–5:00	131	149	1049
5:00–5:15	10	14		5:00–5:15	138	158	
5:15–5:30	20	39		5:15–5:30	196	166	
5:30–5:45	42	40		5:30–5:45	145	206	
5:45–6:00	36	55	256	5:45–6:00	142	204	1355
6:00–6:15	59	70		6:00–6:15	130	170	
6:15–6:30	105	96		6:15–6:30	120	197	
6:30–6:45	114	144		6:30–6:45	110	153	
6:45–7:00	166	123	877	6:45–7:00	96	115	1091
7:00–7:15	191	149		7:00–7:15	106	99	
7:15–7:30	226	142		7:15–7:30	110	77	
7:30–7:45	199	164		7:30–7:45	74	76	
7:45–8:00	177	130	1378	7:45–8:00	87	84	713
8:00–8:15	138	153		8:00–8:15	72	64	
8:15–8:30	122	117		8:15–8:30	71	67	
8:30–8:45	113	108		8:30–8:45	64	85	
8:45–9:00	100	90	941	8:45–9:00	54	62	539
9:00–9:15	88	91		9:00–9:15	59	47	
9:15–9:30	78	89		9:15–9:30	65	35	
9:30–9:45	53	69		9:30–9:45	58	42	
9:45–10:00	69	72	609	9:45–10:00	49	58	413
10:00–10:15	55	92		10:00–10:15	34	32	
10:15–10:30	68	87		10:15–10:30	37	39	
10:30–10:45	75	79		10:30–10:45	30	24	
10:45–11:00	76	89	621	10:45–11:00	17	20	233
11:00–11:15	84	76		11:00–11:15	26	24	
11:15–11:30	90	71		11:15–11:30	30	23	
11:30–11:45	76	77		11:30–11:45	13	16	
11:45–12:00	91	75	640	11:45–12:00	18	15	165
Total Volumes	2825	2717	5542		4252	4230	8482
Daily Totals					7077	6947	14024

Location: El Toro E/O Marguerite Mission Viejo Volumes for Tuesday 6/27/95

AM Period	EB	WB		PM Period	EB	WB	
12:00–12:15	13	13		12:00–12:15	74	91	
12.15–12:30	11	10		12:15–12:30	83	78	
12:30–12:45	9	9		12:30–12:45	84	104	
12:45–1:00	11	10	86	12:45–1:00	88	69	671
1:00–1:15	12	3		1:00–1:15	87	107	
1:15–1:30	12	7		1:15–1:30	82	92	
1:30–1:45	8	7		1:30–1:45	94	104	
1:45–2:00	6	4	59	1:45–2:00	108	118	792
2:00–2:15	3	3		2:00–2:15	111	131	
2:15–2:30	2	3		2:15–2:30	102	122	
2:30–2:45	5	5		2:30–2:45	102	132	
2:45–3:00	6	4	31	2:45–3:00	99	108	907
3:00–3:15	3	1		3:00–3:15	119	139	
3:15–3:30	2	1		3:15–3:30	125	146	
3:30–3:45	4	3		3:30–3:45	122	162	
3:45–4:00	4	4	22	3:45–4:00	106	126	1045
4:00–4:15	2	6		4:00–4:15	133	153	
4:15–4:30	7	5		4:15–4:30	127	147	
4:30–4:45	11	13		4:30–4:45	120	140	
4:45–5:00	8	22	74	4:45–5:00	104	124	1048
5:00–5:15	18	10		5:00–5:15	163	163	
5:15–5:30	22	41		5:15–5:30	170	120	
5:30–5:45	44	44		5:30–5:45	182	195	
5:45–6:00	40	57	276	5:45–6:00	135	145	1273
6:00–6:15	61	63		6:00–6:15	125	165	
6:15–6:30	110	84		6:15–6:30	142	162	
6:30–6:45	119	127		6:30–6:45	136	171	
6:45–7:00	174	117	855	6:45–7:00	125	121	1147
7:00–7.15	217	136		7:00–7:15	111	112	
7:15–7:30	235	149		7.15–7:30	109	139	
7:30–7:45	217	159		7:30–7:45	105	105	
7:45–8:00	201	149	1463	7:45–8:00	97	96	874
8:00–8:15	150	140		8:00–8:15	101	67	
8:15–8:30	139	134		8:15–8:30	101	66	
8:30–8:45	128	113		8:30–8:45	81	83	
8:45–9:00	105	113	1022	8:45–9:00	81	72	652
9:00–9:15	102	88		9:00–9:15	78	61	
9:15–9:30	96	93		9:15–9:30	78	47	
9:30–9:45	67	83		9:30–9:45	65	45	
9:45–10:00	89	86	704	9:45–10:00	66	60	500
10:00–10:15	83	83		10:00–10:15	68	44	
10:15–10:30	74	110		10:15–10:30	69	44	
10:30–10:45	84	88		10:30–10:45	56	27	
10:45–11:00	101	95	718	10:45–11:00	27	20	355
11:00–11:15	102	81		11:00–11:15	38	24	
11:15–11:30	105	91		11:15–11:30	32	24	
11:30–11:45	88	94		11:30–11:45	18	19	
11:45–12:00	111	90	762	11:45–12:00	22	14	191
Total Volumes	3221	2851	6072		4651	4804	9455
Daily Totals					7872	7655	15527

Location: Live Oak E/O El Toro Mission Viejo Volumes for Tue 6/27/95 to Wed 6/28/95

AM Period	EB	WB		PM Period	EB	WB	
12:00–12:15	6	8		12:00–12:15	31	29	
12:15–12:30	5	4		12:15–12:30	17	42	
12:30–12:45	3	0		12:30–12:45	24	25	
12:45–1:00	4	2	32	12:45–1:00	34	27	229
1:00–1:15	1	0		1:00–1:15	25	25	
1:15–1:30	3	1		1:15–1:30	33	26	
1:30–1:45	7	1		1:30–1:45	37	32	
1:45–2:00	1	2	16	1:45–2:00	34	31	243
2:00–2.15	6	3		2:00–2:15	29	35	
2:15–2:30	3	2		2:15–2:30	50	40	
2:30–2:45	2	0		2:30–2:45	26	42	
2:45–3:00	3	4	23	2:45–3:00	33	35	290
3:00–3:15	1	0		3:00–3:15	29	36	
3:15–3:30	0	2		3:15–3:30	27	34	
3:30–3:45	0	3		3:30–3:45	30	32	
3:45–4:00	4	3	13	3:45–4:00	32	33	253
4:00–4:15	1	2		4:00–4:15	37	30	
4:15–4:30	1	3		4:15–4:30	41	27	
4:30–4:45	0	7		4:30–4:45	54	51	
4:45–5:00	1	7	22	4:45–5:00	64	48	352
5:00–5:15	0	8		5:00–5:15	61	27	
5:15–5:30	2	12		5:15–5:30	72	29	
5:30–5:45	8	16		5:30–5:45	99	32	
5:45–6:00	12	15	73	5:45–6:00	89	35	444
6:00–6:15	18	38		6:00–6:15	103	37	
6:15–6:30	16	42		6:15–6:30	70	33	
6:30–6:45	54	52		6:30–6:45	72	28	
6:45–7:00	43	62	325	6:45–7:00	67	36	446
7:00–7:15	44	58		7:00–7:15	41	25	
7:15–7:30	38	105		7:15–7:30	34	31	
7:30–7:45	45	67		7:30–7:45	40	23	
7:45–8:00	48	71	476	7:45–8:00	46	22	262
8:00–8:15	35	83		8:00–8:15	34	19	
8:15–8:30	24	62		8:15–8:30	31	24	
8:30–8:45	18	51		8:30–8:45	22	24	
8:45–9:00	21	17	311	8:45–9:00	17	38	209
9:00–9:15	16	25		9:00–9:15	29	19	
9:15–9:30	19	24		9:15–9:30	28	16	
9:30–9:45	25	31		9:30–9:45	20	14	
9:45–10:00	18	21	179	9:45–10:00	17	10	153
10:00–10:15	15	24		10:00–10:15	14	17	
10:15–10:30	12	24		10:15–10:30	18	11	
10:30–10:45	13	17		10:30–10:45	11	7	
10:45–11:00	21	32	158	10:45–11:00	10	15	103
11:00–11:15	19	23		11:00–11:15	16	2	
11:15–11:30	30	23		11:15–11:30	14	4	
11:30–11:45	22	25		11:30–11:45	8	4	
11:45–12:00	31	30	203	11:45–12:00	6	4	58
Total Volumes	719	1112	1831		1776	1266	3042
Daily Totals					2495	2378	4873

Location: Valley Vista E/O El Toro Mission Viejo Volumes for Tuesday 6/27/95

AM Period	EB	WB		PM Period	EB	WB	
12:00–12:15	1	1		12:00–12:15	6	2	
12:15–12:30	3	2		12:15–12:30	6	9	
12:30–12:45	2	0		12:30–12:45	10	5	
12:45–1:00	0	1	10	12:45–1:00	11	8	57
1:00–1:15	1	0		1:00–1:15	9	9	
1:15–1:30	0	0		1:15–1:30	11	11	
1:30–1:45	0	0		1:30–1:45	8	8	
1:45–2:00	0	0	1	1:45–2:00	7	11	74
2:00–2:15	0	0		2:00–2:15	8	4	
2:15–2:30	0	0		2:15–2:30	8	2	
2:30–2:45	1	1		2:30–2:45	10	8	
2:45–3:00	0	0	2	2:45–3:00	9	9	58
3:00–3:15	0	1		3:00–3:15	9	10	
3:15–3:30	1	0		3:15–3:30	17	9	
3:30–3:45	2	1		3:30–3:45	8	7	
3:45–4:00	0	3	8	3:45–4:00	7	8	75
4:00–4:15	0	4		4:00–4:15	11	10	
4:15–4:30	1	1		4:15–4:30	14	15	
4:30–4:45	0	2		4:30–4:45	22	8	
4:45–5:00	0	3	11	4:45–5:00	14	16	110
5:00–5:15	0	3		5:00–5:15	29	12	
5:15–5:30	0	6		5:15–5:30	20	13	
5:30–5:45	0	10		5:30–5:45	25	15	
5:45–6:00	1	7	27	5:45–6:00	30	12	154
6:00–6:15	1	10		6:00–6:15	16	3	
6:15–6:30	1	13		6:15–6:30	23	12	
6:30–6:45	3	29		6:30–6:45	18	14	
6:45–7:00	4	22	83	6:45–7:00	19	7	112
7:00–7:15	1	38		7:00–7:15	21	4	
7:15–7:30	6	21		7:15–7:30	18	11	
7:30–7:45	7	28		7:30–7:45	12	11	
7:45–8:00	5	27	133	7:45–8:00	12	10	99
8:00–8:15	5	26		8:00–8:15	8	7	
8:15–8:30	7	26		8:15–8:30	21	3	
8:30–8:45	3	13		8:30–8:45	14	8	
8:45–9:00	6	17	103	8:45–9:00	11	7	79
9:00–9:15	6	15		9:00–9:15	5	9	
9:15–9:30	6	6		9:15–9:30	13	2	
9:30–9:45	2	7		9:30–9:45	9	5	
9:45–10:00	4	11	57	9:45–10:00	5	4	52
10:00–10:15	5	5		10:00–10:15	6	6	
10:15–10:30	4	13		10:15–10:30	11	4	
10:30–10:45	4	4		10:30–10:45	7	4	
10:45–11:00	11	11	57	10:45–11:00	6	3	47
11:00–11:15	13	5		11:00–11:15	9	1	
11:15–11:30	2	9		11:15–11:30	2	1	
11:30–11:45	3	12		11:30–11:45	1	0	
11:45–12:00	2	13	59	11:45–12:00	1	0	15
Total Volumes	124	427	551		577	355	932
Daily Totals					701	782	1483

Location: Glenn Ranch E/O Portola Mission Viejo Volumes for Tuesday 6/27/95

AM Period	EB	WB		PM Period	EB	WB	
12:00–12:15	3	0		12:00–12:15	27	25	
12:15–12:30	8	1		12:15–12:30	27	29	
12:30–12:45	1	1		12:30–12:45	40	21	
12:45–1:00	5	1	20	12:45–1:00	19	24	219
1:00–1:15	1	1		1:00–1:15	35	26	
1:15–1:30	1	1		1:15–1:30	24	30	
1:30–1:45	4	3		1:30–1:45	12	34	
1:45–2:00	2	1	14	1:45–2:00	28	19	208
2:00–2:15	1	1		2:00–2:15	18	25	
2:15–2:30	1	2		2:15–2:30	11	21	
2:30–2:45	2	1		2:30–2:45	24	22	
2:45–3:00	0	0	8	2:45–3:00	26	21	168
3:00–3:15	1	5		3:00–3:15	32	27	
3:15–3:30	4	2		3:15–3:30	43	29	
3:30–3:45	1	1		3:30–3:45	27	23	
3:45–4:00	2	0	14	3:45–4:00	24	26	231
4:00–4:15	1	5		4:00–4:15	49	28	
4:15–4:30	1	1		4:15–4:30	45	28	
4:30–4:45	2	8		4:30–4:45	66	31	
4:45–5:00	1	7	24	4:45–5:00	53	20	320
5:00–5:15	0	8		5:00–5:15	51	18	
5:15–5:30	0	20		5:15–5:30	75	31	
5:30–5:45	3	29		5:30–5:45	74	28	
5:45–6:00	5	25	99	5:45–6:00	71	37	385
6:00–6:15	9	37		6:00–6:15	68	36	
6:15–6:30	9	42		6:15–6:30	70	23	
6:30–6:45	12	71		6:30–6:45	54	31	
6:45–7:00	12	78	270	6:45–7:00	69	24	375
7:00–7:15	11	82		7:00–7:15	72	31	
7:15–7:30	29	86		7:15–7:30	46	28	
7:30–7:45	13	101		7:30–7:45	46	18	
7:45–8:00	14	105	441	7:45–8:00	30	18	289
8:00–8:15	12	72		8:00–8:15	37	18	
8:15–8:30	16	78		8:15–8:30	35	23	
8:30–8:45	13	64		8:30–8:45	31	16	
8:45–9:00	17	61	333	8:45–9:00	27	11	198
9:00–9:15	11	37		9:00–9:15	36	11	
9:15–9:30	8	35		9:15–9:30	37	7	
9:30–9:45	9	28		9:30–9:45	29	11	
9:45–10:00	13	33	174	9:45–10:00	24	11	166
10:00–10:15	10	43		10:00–10:15	26	4	
10:15–10:30	10	27		10:15–10:30	19	13	
10:30–10:45	22	27		10:30–10:45	15	7	
10:45–11:00	18	28	185	10:45–11:00	18	9	111
11:00–11:15	9	32		11:00–11:15	9	3	
11:15–11:30	14	26		11:15–11:30	13	3	
11:30–11:45	19	20		11:30–11:45	9	1	
11:45–12:00	18	28	177	11:45–12:00	4	3	45
Total Volumes	382	1377	1759		1725	981	2706
Daily Totals					2107	2358	4465

Location: Portola N/O El Toro Mission Viejo Volumes for Tue 6/27/95 to Wed 6/28/95

AM Period	NB	SB		PM Period	NB	SB	
12:00–12:15	14	14		12:00–12:15	111	150	
12:15–12:30	6	12		12:15–12:30	180	129	
12:30–12:45	5	18		12:30–12:45	177	140	
12:45–1:00	9	8	86	12:45–1:00	133	134	1154
1:00–1:15	4	10		1:00–1:15	170	140	
1:15–1:30	11	8		1:15–1:30	151	98	
1:30–1:45	3	6		1:30–1:45	111	156	
1:45–2:00	5	4	51	1:45–2:00	163	117	1106
2:00–2:15	0	8		2:00–2:15	146	133	
2:15–2:30	6	2		2:15–2:30	113	121	
2:30–2:45	8	3		2:30–2:45	140	132	
2:45–3:00	6	4	37	2:45–3:00	140	133	1058
3:00–3:15	6	3		3:00–3:15	114	161	
3:15–3:30	2	4		3:15–3:30	125	156	
3:30–3:45	4	6		3:30–3:45	132	161	
3:45–4:00	13	3	41	3:45–4:00	152	181	1182
4:00–4:15	5	7		4:00–4:15	114	187	
4:15–4:30	6	1		4:15–4:30	118	167	
4:30–4:45	15	5		4:30–4:45	98	236	
4:45–5:00	29	8	76	4:45–5:00	140	247	1307
5:00–5:15	36	6		5:00–5:15	109	260	
5:15–5:30	53	11		5:15–5:30	122	337	
5:30–5:45	75	19		5:30–5:45	121	334	
5:45–6:00	130	17	347	5:45–6:00	149	321	1753
6:00–6:15	135	27		6:00–6:15	128	329	
6:15–6:30	170	55		6:15–6:30	138	313	
6:30–6:45	243	59		6:30–6:45	127	284	
6:45–7:00	259	65	1013	6:45–7:00	163	212	1694
7:00–7:15	312	76		7:00–7:15	130	195	
7:15–7:30	333	63		7:15–7:30	139	173	
7:30–7:45	313	81		7:30–7:45	118	138	
7:45–8:00	353	93	1624	7:45–8:00	107	145	1145
8:00–8:15	301	74		8:00–8:15	109	132	
8:15–8:30	251	68		8:15–8:30	92	131	
8:30–8:45	237	90		8:30–8:45	87	215	
8:45–9:00	187	104	1312	8:45–9:00	74	135	975
9:00–9:15	164	75		9:00–9:15	72	107	
9:15–9:30	139	94		9:15–9:30	74	110	
9:30–9:45	143	80		9:30–9:45	63	81	
9:45–10:00	141	98	934	9:45–10:00	56	81	644
10:00–10:15	140	91		10:00–10:15	42	52	
10:15–10:30	133	112		10:15–10:30	40	68	
10:30–10:45	141	82		10:30–10:45	27	56	
10:45–11:00	155	103	957	10:45–11:00	31	34	350
11:00–11:15	156	139		11:00–11:15	22	33	
11:15–11:30	140	106		11:15–11:30	23	34	
11:30–11:45	138	138		11:30–11:45	14	24	
11:45–12:00	141	128	1086	11:45–12:00	22	28	200
Total Volumes	5276	2288	7564		5127	7441	12568
Daily Totals					10403	9729	20132

Location: Portola Pkwy S/O El Toro Mission Viejo Volumes for Tuesday 6/27/95

AM Period	NB	SB		PM Period	NB	SB	
12:00–12:15	18	14		12:00–12:15	209	195	
12:15–12:30	19	31		12:15–12:30	196	193	
12:30–12:45	18	20		12:30–12:45	178	203	
12:45–1:00	9	22	151	12:45–1:00	171	202	1547
1:00–1:15	11	14		1:00–1:15	176	174	
1:15–1:30	7	18		1:15–1:30	206	163	
1:30–1:45	7	13		1:30–1:45	165	158	
1:45–2:00	4	5	79	1:45–2:00	167	165	1374
2:00–2:15	7	8		2:00–2:15	168	150	
2:15–2:30	5	5		2:15–2:30	209	176	
2:30–2:45	8	9		2:30–2:45	161	170	
2:45–3:00	4	2	48	2:45–3:00	174	162	1370
3:00–3:15	6	3		3:00–3:15	173	187	
3:15–3:30	5	2		3:15–3:30	176	183	
3:30–3:45	8	6		3:30–3:45	192	198	
3:45–4:00	12	10	52	3:45–4:00	203	236	1548
4:00–4:15	13	5		4:00–4:15	168	224	
4:15–4:30	25	9		4:15–4:30	167	265	
4:30–4:45	28	11		4:30–4:45	195	284	
4:45–5:00	36	8	135	4:45–5:00	193	305	1801
5:00–5:15	64	19		5:00–5:15	189	330	
5:15–5:30	84	19		5:15–5:30	200	376	
5:30–5:45	112	30		5:30–5:45	176	384	
5:45–6:00	128	41	497	5:45–6:00	199	381	2235
6:00–6:15	132	55		6:00–6:15	153	403	
6:15–6:30	221	84		6:15–6:30	195	328	
6:30–6:45	268	112		6:30–6:45	152	336	
6:45–7:00	248	170	1290	6:45–7:00	144	307	2018
7:00–7:15	324	107		7:00–7:15	162	294	
7:15–7:30	350	128		7:15–7:30	168	273	
7:30–7:45	428	122		7:30–7:45	149	256	
7:45–8:00	375	158	1992	7:45–8:00	159	196	1657
8:00–8:15	301	113		8:00–8:15	113	172	
8:15–8:30	276	117		8:15–8:30	129	187	
8:30–8:45	216	129		8:30–8:45	110	177	
8:45–9:00	238	125	1515	8:45–9:00	107	143	1138
9:00–9:15	179	125		9:00–9:15	116	144	
9:15–9:30	196	104		9:15–9:30	84	166	
9:30–9:45	161	105		9:30–9:45	75	157	
9:45–10:00	173	133	1176	9:45–10:00	63	119	924
10:00–10:15	167	124		10:00–10:15	65	118	
10:15–10:30	152	152		10:15–10:30	57	85	
10.30–10:45	170	134		10:30–10:45	31	53	
10.45–11:00	185	131	1215	10:45–11:00	21	77	507
11:00–11:15	165	170		11:00–11:15	24	51	
11:15–11:30	189	140		11:15–11:30	19	49	
11:30–11:45	194	173		11:30–11:45	10	48	
11:45–12:00	190	167	1388	11:45–12:00	20	40	261
Total Volumes	6136	3402	9538		6737	9643	16380
Daily Totals					12873	13045	25918

Location: Marguerite S/O El Toro Rd		Mission Viejo		Volumes for Tuesday 6/27/95			
AM Period	NB	SB		PM Period	NB	SB	
12:00–12:15	4	7		12:00–12:15	62	48	
12:15–12:30	7	3		12:15–12:30	72	49	
12:30–12:45	5	3		12:30–12:45	68	59	
12:45–1:00	2	8	39	12:45–1:00	66	52	476
1:00–1:15	2	4		1:00–1:15	54	45	
1:15–1:30	3	6		1:15–1:30	62	52	
1:30–1:45	5	3		1:30–1:45	58	46	
1:45–2:00	3	0	26	1:45–2:00	63	42	422
2:00–2:15	4	2		2:00–2:15	57	46	
2:15–2:30	2	3		2:15–2:30	72	62	
2:30–2:45	5	0		2:30–2:45	83	60	
2:45–3:00	4	2	22	2:45–3:00	64	82	526
3:00–3:15	2	1		3:00–3:15	102	83	
3:15–3:30	0	1		3:15–3:30	99	89	
3:30–3:45	3	0		3:30–3:45	115	93	
3:45–4:00	3	2	12	3:45–4:00	92	105	778
4:00–4:15	4	3		4:00–4:15	107	110	
4:15–4:30	4	2		4:15–4:30	100	120	
4:30–4:45	11	9		4:30–4:45	89	108	
4:45–5:00	13	10	56	4:45–5:00	81	128	843
5:00–5:15	14	18		5:00–5:15	126	125	
5:15–5:30	19	20		5:15–5:30	137	154	
5:30–5:45	47	22		5:30–5:45	125	184	
5:45–6:00	44	36	220	5:45–6:00	101	185	1137
6:00–6:15	62	40		6:00–6:15	105	160	
6:15–6:30	110	47		6:15–6:30	100	151	
6:30–6:45	106	66		6:30–6:45	104	152	
6:45–7:00	152	75	658	6.45–7:00	101	127	1000
7:00–7:15	216	78		7:00–7:15	84	126	
7:15–7:30	209	95		7:15–7:30	88	115	
7:30–7:45	198	90		7:30–7:45	82	88	
7:45–8:00	175	93	1154	7:45–8:00	68	93	744
8:00–8:15	129	75		8:00–8:15	65	68	
8:15–8:30	117	69		8:15–8:30	80	88	
8:30–8:45	86	67		8:30–8:45	77	61	
8:45–9:00	74	69	686	8:45–9:00	65	59	563
9:00–9:15	68	56		9:00–9:15	70	51	
9:15–9:30	63	47		9:15–9:30	78	47	
9:30–9:45	60	44		9:30–9:45	71	35	
9:45–10:00	52	48	438	9:45–10:00	46	40	438
10:00–10:15	55	43		10:00–10:15	36	21	
10:15–10:30	47	66		10:15–10:30	37	34	
10:30–10:45	67	64		10:30–10:45	28	16	
10:45–11:00	65	52	459	10:45–11:00	15	16	203
11:00–11:15	68	49		11:00–11:15	17	21	
11:15–11:30	74	51		11:15–11:30	21	12	
11:30–11:45	70	46		11:30–11:45	8	12	
11:45–12:00	83	63	504	11:45–12:00	8	10	109
Total Volumes	2616	1658	4274		3509	3730	7239
Daily Totals					6125	5388	11513

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: MODJESKA CANYON ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507074

Movements by: VEHICLES

DATE: 8/03/95

Time Begin	From North RT	From North THRU	From North LT	From East RT	From East THRU	From East LT	From South RT	From South THRU	From South LT	From West RT	From West THRU	From West LT	Vehicle Total
7:00 AM	0	103	2	9	0	3	0	303	0	0	0	0	420
7:15	0	89	2	12	0	1	1	349	0	0	0	0	454
7:30	0	90	2	12	0	4	3	318	0	0	0	0	429
7:45	0	67	3	11	0	4	1	278	0	0	0	0	364
HR TOTAL	0	349	9	44	0	12	5	1248	0	0	0	0	1667
8:00 AM	0	66	3	9	0	3	0	203	0	0	0	0	284
8:15	0	72	2	8	0	1	3	211	0	0	0	0	297
8:30	0	59	3	13	0	6	1	159	0	0	0	0	241
8:45	0	59	6	7	0	3	2	97	0	0	0	0	174
HR TOTAL	0	256	14	37	0	13	6	670	0	0	0	0	996
Break													
4:00 PM	0	118	5	4	0	5	4	110	0	0	0	0	246
4:15	0	135	5	4	0	0	3	116	0	0	0	0	263
4:30	0	161	5	4	0	3	2	103	0	0	0	0	278
4:45	0	185	4	2	0	2	6	104	0	0	0	0	303
HR TOTAL	0	599	19	14	0	10	15	433	0	0	0	0	1090
5:00 PM	0	168	6	6	0	2	4	117	0	0	0	0	303
5:15	0	217	12	5	0	0	5	109	0	0	0	0	348
5:30	0	238	7	4	0	3	4	112	0	0	0	0	368
5:45	0	242	9	0	0	2	4	123	0	0	0	0	380
HR TOTAL	0	865	34	15	0	7	17	461	0	0	0	0	1399
DAY TOTAL	0	2069	76	110	0	42	43	2812	0	0	0	0	5152

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: MODJESKA CANYON ROAD
Client : RKJK & ASSOC.

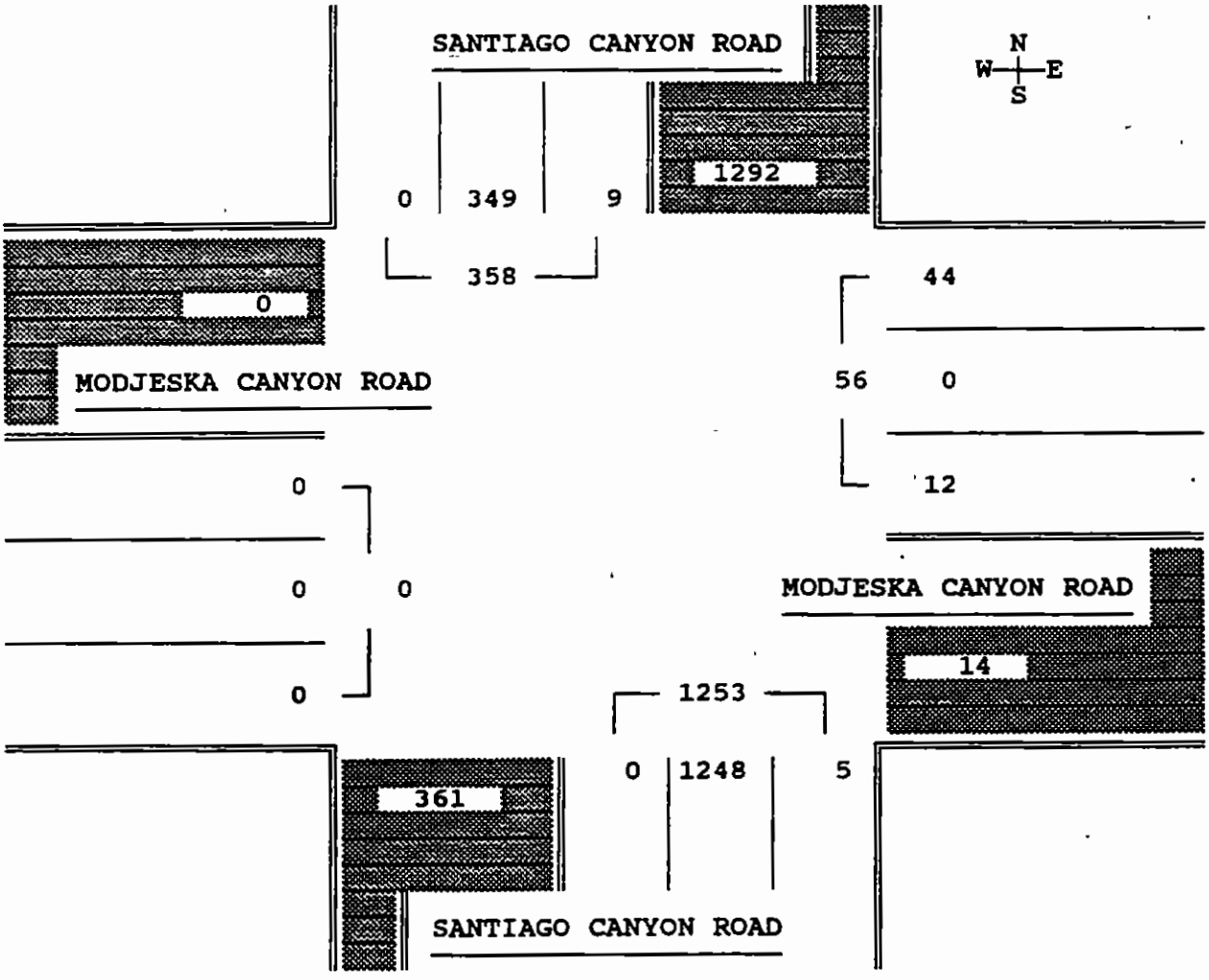
PAGE: 1
FILE: H9507074

Movements by: VEHICLES

DATE: 8/03/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.85	0	349	9	358	0	97	3
East	7:00 AM	0.88	44	0	12	56	79	0	21
South	7:00 AM	0.89	5	1248	0	1253	0	%100	0
West	7:00 AM	0.00	0	0	0	0	0	0	0
Entire Intersection									
North	7:00 AM	0.85	0	349	9	358	0	97	3
East		0.88	44	0	12	56	79	0	21
South		0.89	5	1248	0	1253	0	%100	0
West		0.00	0	0	0	0	0	0	0



TURNING MOVEMENTS by Traffic Counts, Inc

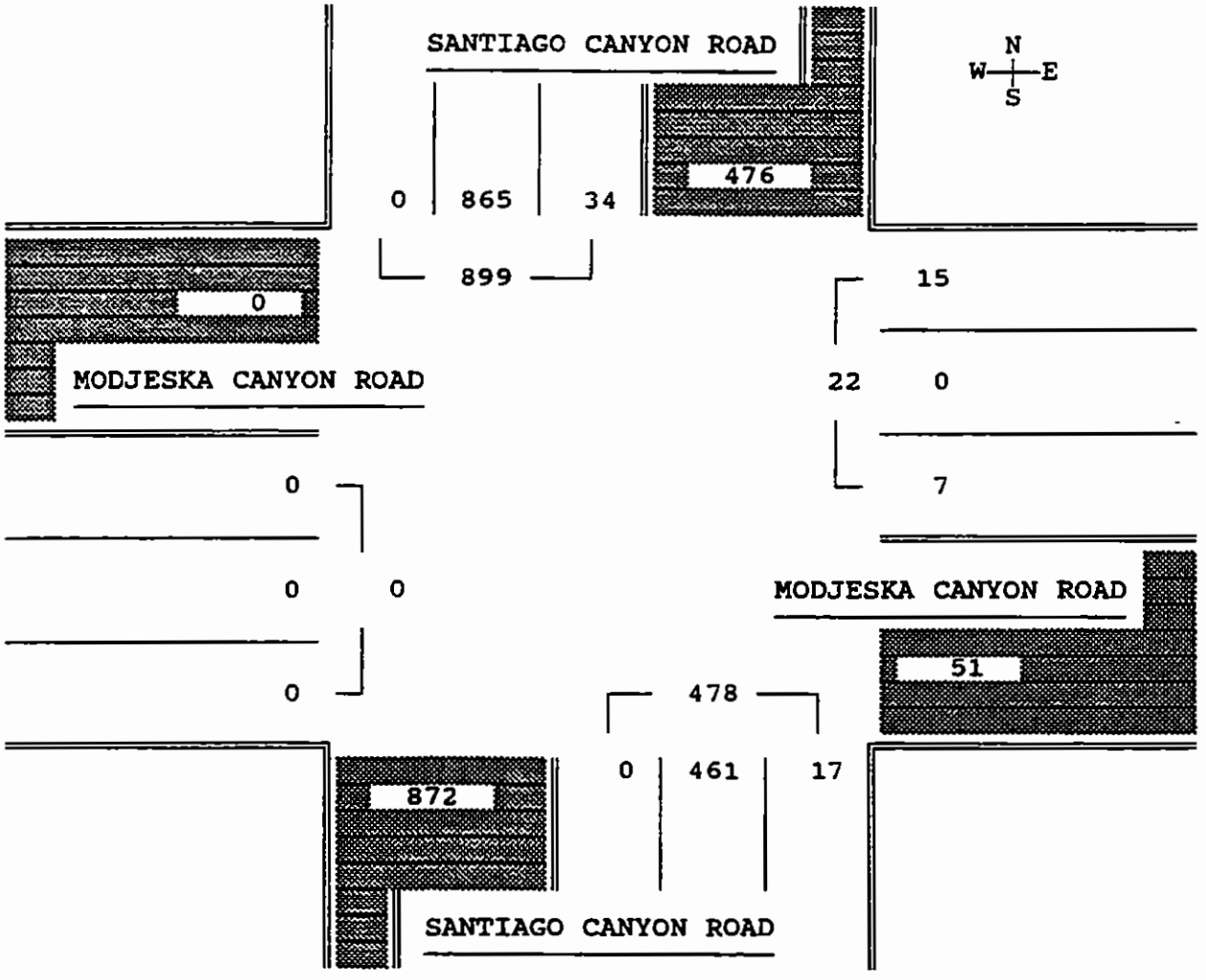
Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: MODJESKA CANYON ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: M9507074
DATE: 8/03/95

Movements by: VEHICLES

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.90	0	865	34	899	0	96	4
East	4:00 PM	0.67	14	0	10	24	58	0	42
South	5:00 PM	0.94	17	461	0	478	4	96	0
West	5:00 PM	0.00	0	0	0	0	0	0	0
Entire Intersection									
North	5:00 PM	0.90	0	865	34	899	0	96	4
East		0.69	15	0	7	22	68	0	32
South		0.94	17	461	0	478	4	96	0
West		0.00	0	0	0	0	0	0	0



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: RIDGELINE ROAD NORTH
Client : RKJK & ASSOC.

PAGE: 1
FILE: N9507075
Movements by: VEHICLES
DATE: 8/02/95

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
7:00 AM	7	114	0	0	0	0	0	272	0	0	0	55	448
7:15	9	81	0	0	0	0	0	296	1	5	0	33	425
7:30	8	86	0	0	0	0	0	275	1	1	0	40	411
7:45	4	106	0	0	0	0	0	226	3	1	0	28	368
HR TOTAL	28	387	0	0	0	0	0	1069	5	7	0	156	1652
8:00 AM	4	60	0	0	0	0	0	207	1	1	0	37	310
8:15	5	81	0	0	0	0	0	143	2	0	0	24	255
8:30	5	76	0	0	0	0	0	133	1	0	0	25	240
8:45	4	62	0	0	0	0	0	106	3	2	0	17	194
HR TOTAL	18	279	0	0	0	0	0	589	7	3	0	103	999
Break													
4:00 PM	25	109	0	0	0	0	0	147	2	2	0	10	295
4:15	18	111	0	0	0	0	0	122	3	1	0	5	260
4:30	21	127	0	0	0	0	0	125	1	0	0	7	281
4:45	31	161	0	0	0	0	0	107	7	1	0	10	317
HR TOTAL	95	508	0	0	0	0	0	501	13	4	0	32	1153
5:00 PM	22	153	0	0	0	0	0	121	6	1	0	13	316
5:15	37	224	0	0	0	0	0	123	2	0	0	8	394
5:30	51	217	0	0	0	0	0	107	6	1	0	9	391
5:45	46	203	0	0	0	0	0	101	6	2	0	6	364
HR TOTAL	156	797	0	0	0	0	0	452	20	4	0	36	1465
DAY TOTAL	297	1971	0	0	0	0	0	2611	45	18	0	327	5269

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: RIDGELINE ROAD NORTH
Client : RKJK & ASSOC.

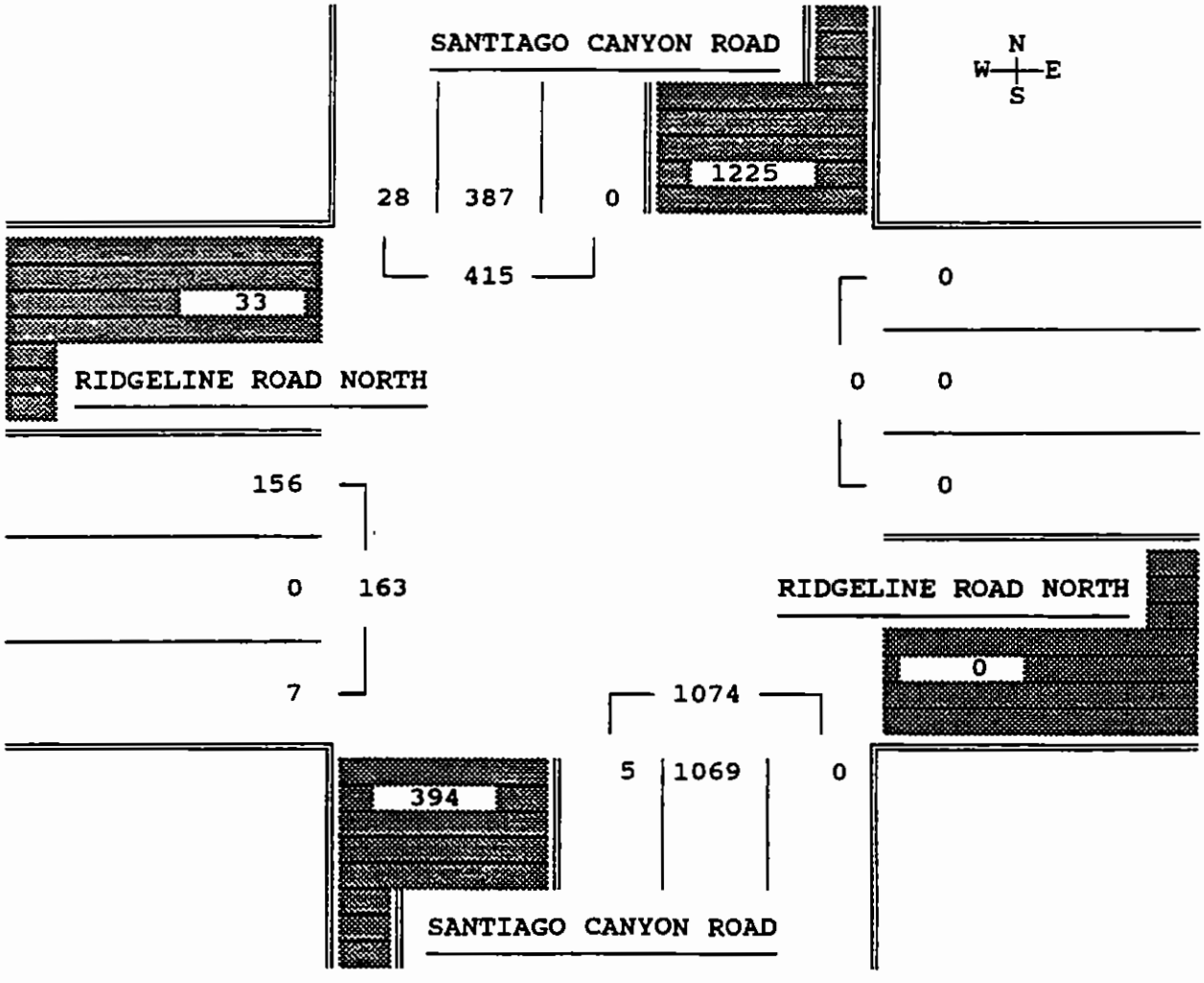
PAGE: 1
FILE: H9507075

Movements by: VEHICLES

DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.86	28	387	0	415	7	93	0
East	7:00 AM	0.00	0	0	0	0	0	0	0
South	7:00 AM	0.90	0	1069	5	1074	0	%100	0
West	7:00 AM	0.74	7	0	156	163	4	0	96
Entire Intersection									
North	7:00 AM	0.86	28	387	0	415	7	93	0
East		0.00	0	0	0	0	0	0	0
South		0.90	0	1069	5	1074	0	%100	0
West		0.74	7	0	156	163	4	0	96



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: RIDGELINE ROAD NORTH
Client : RKJK & ASSOC.

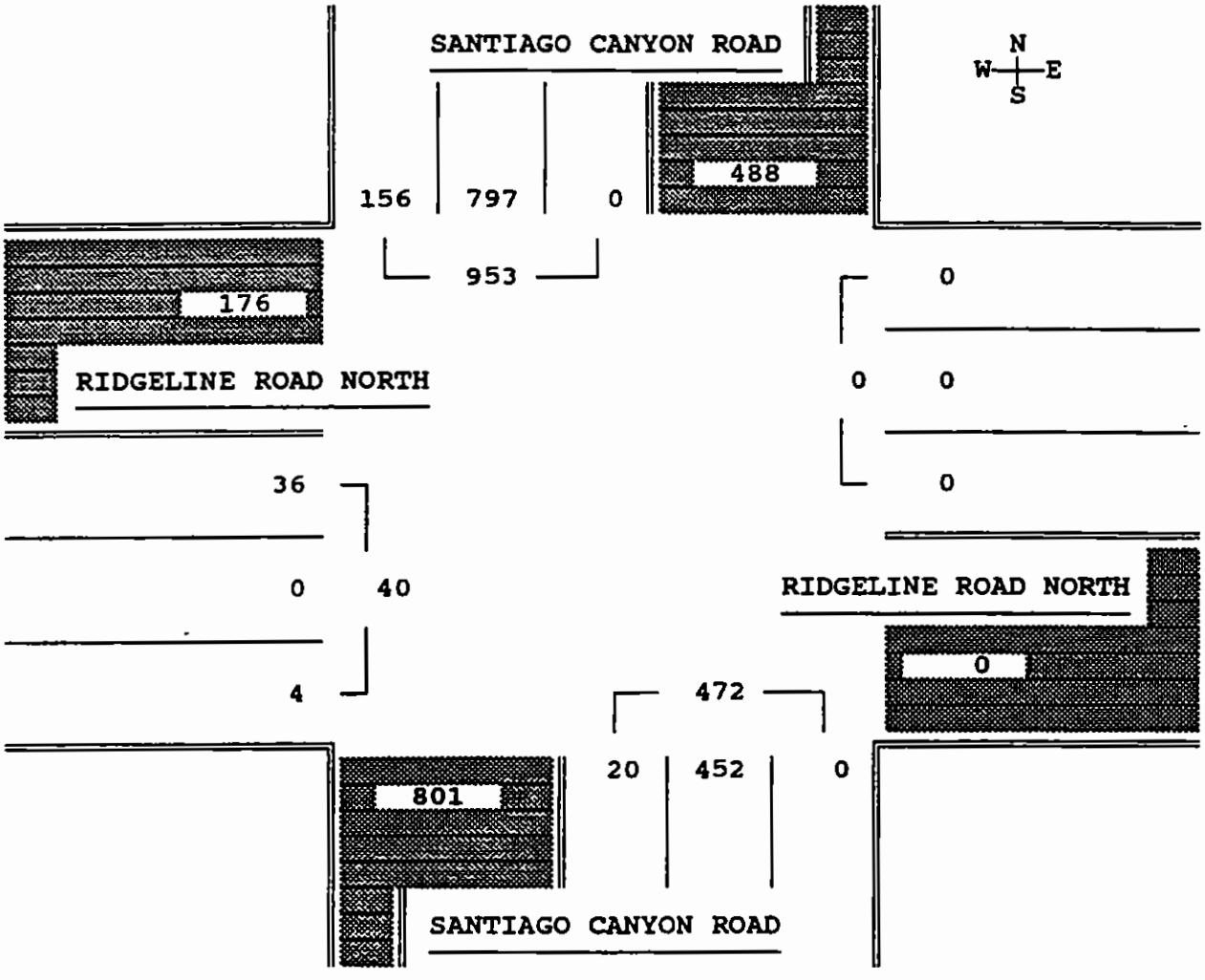
PAGE: 1
FILE: N9507075

Movements by: VEHICLES

DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.89	156	797	0	953	16	84	0
East	5:00 PM	0.00	0	0	0	0	0	0	0
South	4:00 PM	0.86	0	501	13	514	0	97	3
West	4:45 PM	0.77	3	0	40	43	7	0	93
Entire Intersection									
North	5:00 PM	0.89	156	797	0	953	16	84	0
East		0.00	0	0	0	0	0	0	0
South		0.93	0	452	20	472	0	96	4
West		0.71	4	0	36	40	10	0	90



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: LIVE OAK CANYON ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507076

Movements by: VEHICLES

DATE: 8/02/95

Time Begin	From North			From East			From South			From West			Vehicle Total
	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
7:00 AM	0	79	34	66	0	9	8	222	0	0	0	0	418
7:15	0	68	22	82	0	12	6	235	0	0	0	0	425
7:30	0	74	28	64	0	16	11	186	0	0	0	0	379
7:45	0	63	28	54	0	15	12	170	0	0	0	0	342
HR TOTAL	0	284	112	266	0	52	37	813	0	0	0	0	1564
8:00 AM	0	55	16	50	0	15	11	141	0	0	0	0	288
8:15	0	58	14	48	0	18	9	110	0	0	0	0	257
8:30	0	54	19	39	0	18	6	108	0	0	0	0	244
8:45	0	52	13	17	0	15	9	73	0	0	0	0	179
HR TOTAL	0	219	62	154	0	66	35	432	0	0	0	0	968
Break													
4:00 PM	0	74	25	40	0	7	20	102	0	0	0	0	268
4:15	0	90	23	26	0	9	14	97	0	0	0	0	259
4:30	0	98	29	36	0	15	12	84	0	0	0	0	274
4:45	0	114	41	35	0	16	21	92	0	0	0	0	319
HR TOTAL	0	376	118	137	0	47	67	375	0	0	0	0	1120
5:00 PM	0	119	38	29	0	11	19	99	0	0	0	0	315
5:15	0	175	66	19	0	11	22	96	0	0	0	0	389
5:30	0	141	54	25	0	11	26	94	0	0	0	0	351
5:45	0	146	65	21	0	7	28	89	0	0	0	0	356
HR TOTAL	0	581	223	94	0	40	95	378	0	0	0	0	1411
DAY TOTAL	0	1460	515	651	0	205	234	1998	0	0	0	0	5063

TURNING MOVEMENTS by Traffic Counts, Inc

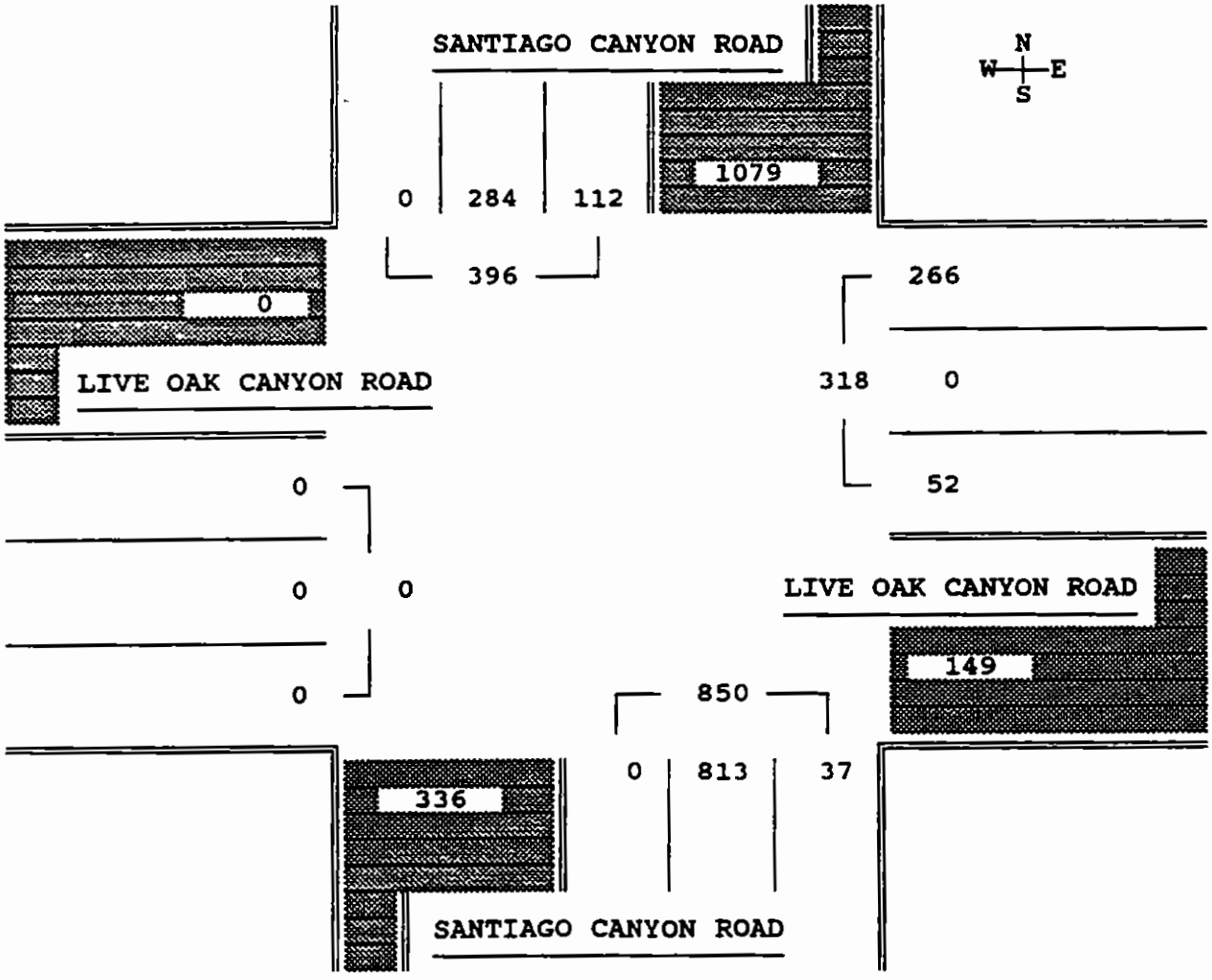
Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: LIVE OAK CANYON ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507076
DATE: 8/02/95

Movements by: VEHICLES

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.88	0	284	112	396	0	72	28
East	7:00 AM	0.85	266	0	52	318	84	0	16
South	7:00 AM	0.88	37	813	0	850	4	96	0
West	7:00 AM	0.00	0	0	0	0	0	0	0
Entire Intersection									
North	7:00 AM	0.88	0	284	112	396	0	72	28
East		0.85	266	0	52	318	84	0	16
South		0.88	37	813	0	850	4	96	0
West		0.00	0	0	0	0	0	0	0



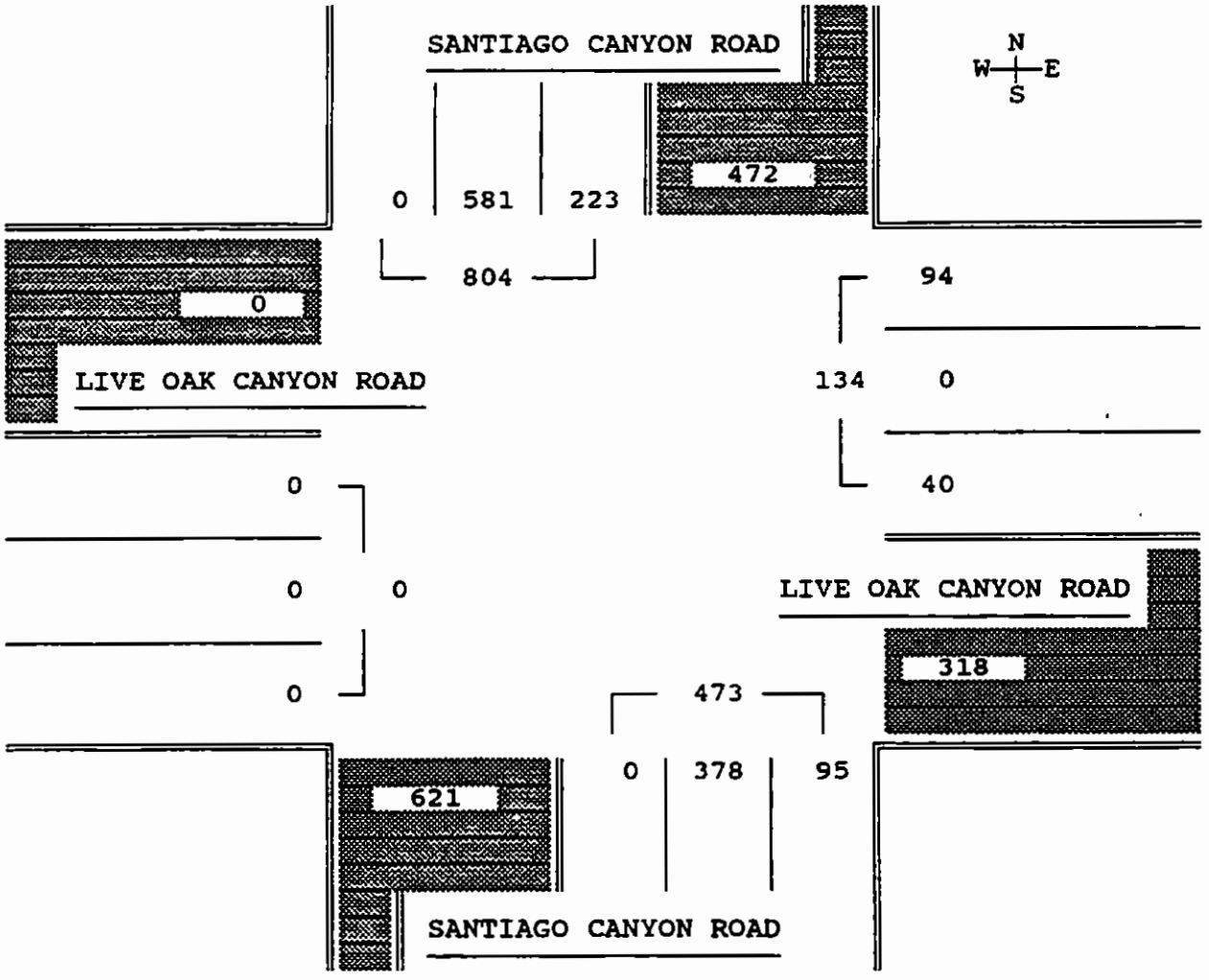
TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: LIVE OAK CANYON ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507076
Movements by: VEHICLES
DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.83	0	581	223	804	0	72	28
East	4:00 PM	0.90	137	0	47	184	74	0	26
South	5:00 PM	0.99	95	378	0	473	20	80	0
West	5:00 PM	0.00	0	0	0	0	0	0	0
Entire Intersection									
North	5:00 PM	0.83	0	581	223	804	0	72	28
East		0.84	94	0	40	134	70	0	30
South		0.99	95	378	0	473	20	80	0
West		0.00	0	0	0	0	0	0	0



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: RIDGELINE ROAD SOUTH
Client : RKJK & ASSOC.

PAGE: 1
FILE: M9507077

Movements by: VEHICLES

DATE: 8/02/95

Time Begin	From North			From East			From South			From West			Vehicle Total
	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
7:00 AM	4	85	0	0	0	0	0	203	7	24	0	24	347
7:15	0	83	0	0	0	0	0	214	5	30	0	23	355
7:30	1	72	0	0	0	0	0	187	5	35	0	23	323
7:45	5	97	0	0	0	0	0	164	8	34	0	12	320
HR TOTAL	10	337	0	0	0	0	0	768	25	123	0	82	1345
8:00 AM	1	57	0	0	0	0	0	145	9	41	0	10	263
8:15	5	80	0	0	0	0	0	104	9	30	0	8	236
8:30	3	70	0	0	0	0	0	96	10	42	0	6	227
8:45	7	64	0	0	0	0	0	78	8	34	0	5	196
HR TOTAL	16	271	0	0	0	0	0	423	36	147	0	29	922
Break													
4:00 PM	1	76	0	0	0	0	0	126	13	15	0	1	232
4:15	2	95	0	0	0	0	0	105	24	16	0	5	247
4:30	6	104	0	0	0	0	0	92	30	37	0	3	272
4:45	1	139	0	0	0	0	0	96	33	20	0	13	302
HR TOTAL	10	414	0	0	0	0	0	419	100	88	0	22	1053
5:00 PM	4	123	0	0	0	0	0	119	31	13	0	5	295
5:15	8	182	0	0	0	0	0	105	21	17	0	5	338
5:30	5	156	0	0	0	0	0	104	32	21	0	7	325
5:45	4	136	0	0	0	0	0	113	31	27	0	11	322
HR TOTAL	21	597	0	0	0	0	0	441	115	78	0	28	1280
DAY TOTAL	57	1619	0	0	0	0	0	2051	276	436	0	161	4600

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: RIDGELINE ROAD SOUTH
Client : RKJK & ASSOC.

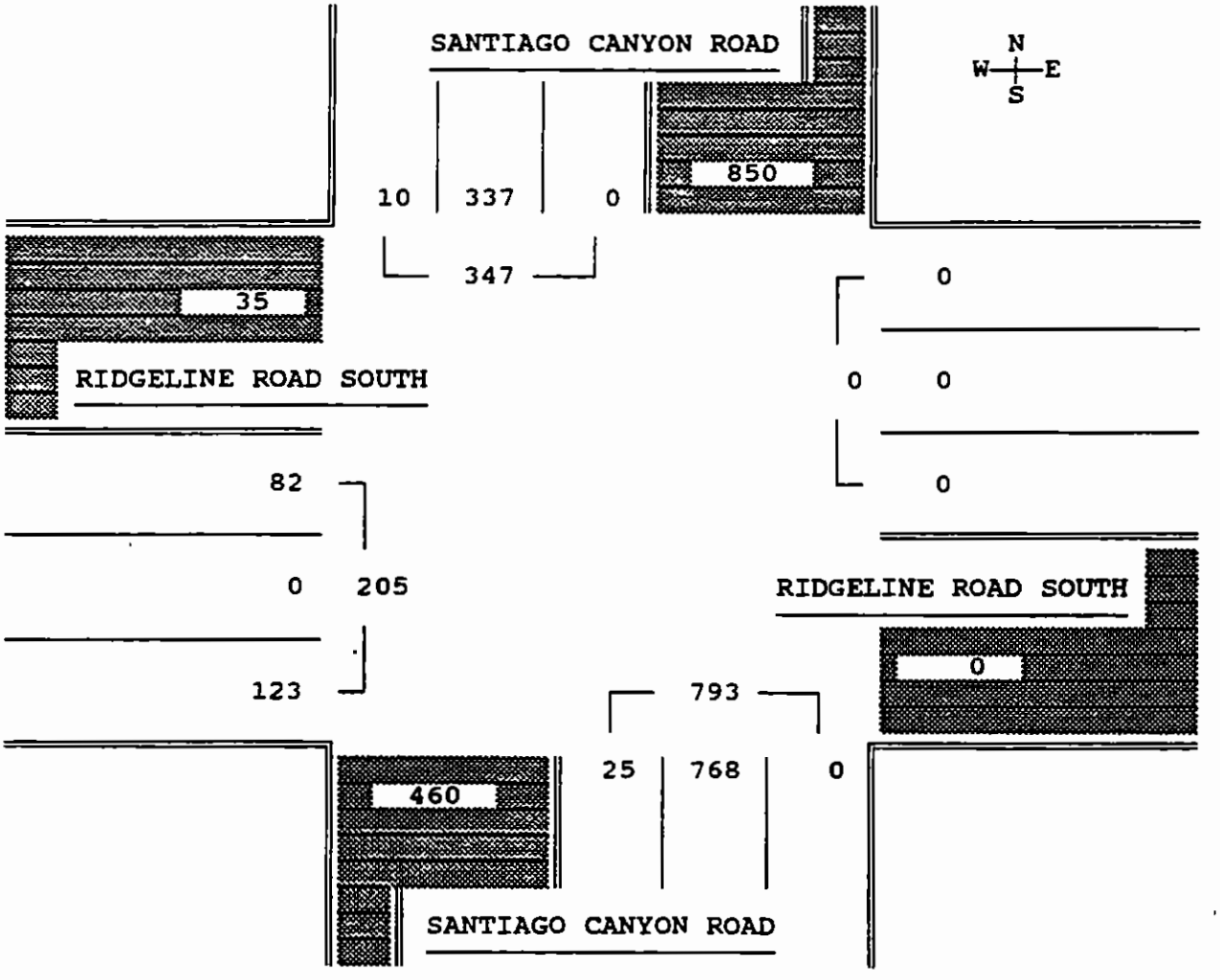
PAGE: 1
FILE: H9507077

Movements by: VEHICLES

DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.85	10	337	0	347	3	97	0
East	7:00 AM	0.00	0	0	0	0	0	0	0
South	7:00 AM	0.91	0	768	25	793	0	97	3
West	7:15 AM	0.90	140	0	68	208	67	0	33
Entire Intersection									
North	7:00 AM	0.85	10	337	0	347	3	97	0
East		0.00	0	0	0	0	0	0	0
South		0.91	0	768	25	793	0	97	3
West		0.88	123	0	82	205	60	0	40



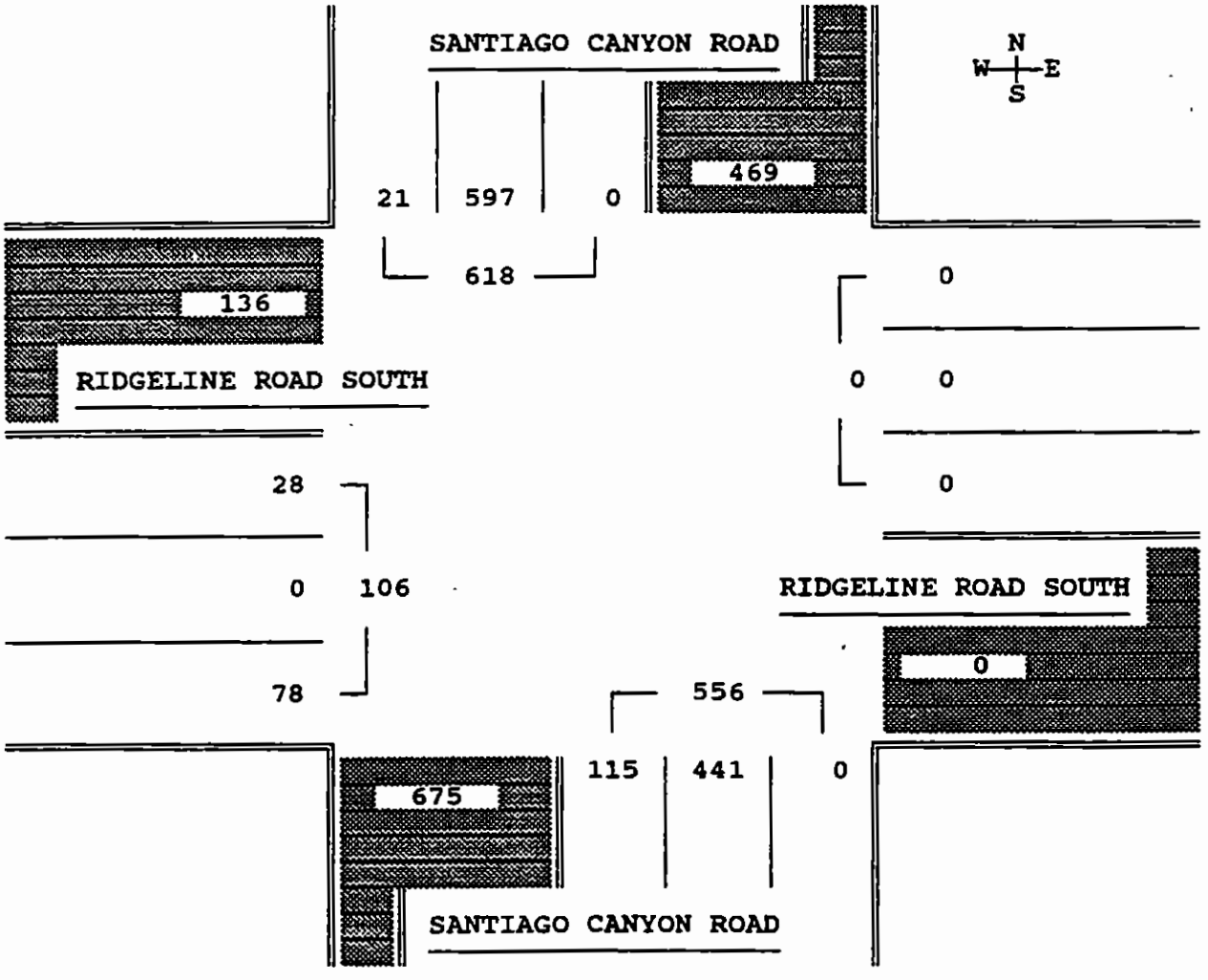
TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: RIDGELINE ROAD SOUTH
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507077
Movements by: VEHICLES
DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:45 PM	0.81	18	600	0	618	3	97	0
East	4:45 PM	0.00	0	0	0	0	0	0	0
South	5:00 PM	0.93	0	441	115	556	0	79	21
West	4:30 PM	0.71	87	0	26	113	77	0	23
Entire Intersection									
North	5:00 PM	0.81	21	597	0	618	3	97	0
East		0.00	0	0	0	0	0	0	0
South		0.93	0	441	115	556	0	79	21
West		0.70	78	0	28	106	74	0	26



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: VALLEY VISTA WAY
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507078
Movements by: VEHICLES
DATE: 8/02/95

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
7:00 AM	0	97	1	7	0	14	4	199	0	0	0	0	322
7:15	0	122	0	11	0	32	3	211	0	0	0	0	379
7:30	0	106	1	8	0	22	6	182	0	0	0	0	325
7:45	0	132	1	3	0	23	0	173	0	0	0	0	332
HR TOTAL	0	457	3	29	0	91	13	765	0	0	0	0	1358
8:00 AM	0	97	1	4	0	15	2	148	0	0	0	0	267
8:15	0	116	3	6	0	9	2	105	0	0	0	0	241
8:30	0	107	1	2	0	9	8	104	0	0	0	0	231
8:45	0	97	2	4	0	7	4	83	0	0	0	0	197
HR TOTAL	0	417	7	16	0	40	16	440	0	0	0	0	936
Break													
4:00 PM	0	87	8	1	0	12	10	131	0	0	0	0	249
4:15	0	109	4	3	0	5	17	126	0	0	0	0	264
4:30	0	139	2	4	0	10	11	113	0	0	0	0	279
4:45	0	143	3	2	0	6	15	135	0	0	0	0	304
HR TOTAL	0	478	17	10	0	33	53	505	0	0	0	0	1096
5:00 PM	0	130	4	3	0	8	13	138	0	0	0	0	296
5:15	0	176	7	0	0	10	13	129	0	0	0	0	335
5:30	0	175	3	4	0	9	22	144	0	0	0	0	357
5:45	0	165	6	1	0	5	18	134	0	0	0	0	329
HR TOTAL	0	646	20	8	0	32	66	545	0	0	0	0	1317
DAY TOTAL	0	1998	47	63	0	196	148	2255	0	0	0	0	4707

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: VALLEY VISTA WAY
Client : RKJK & ASSOC.

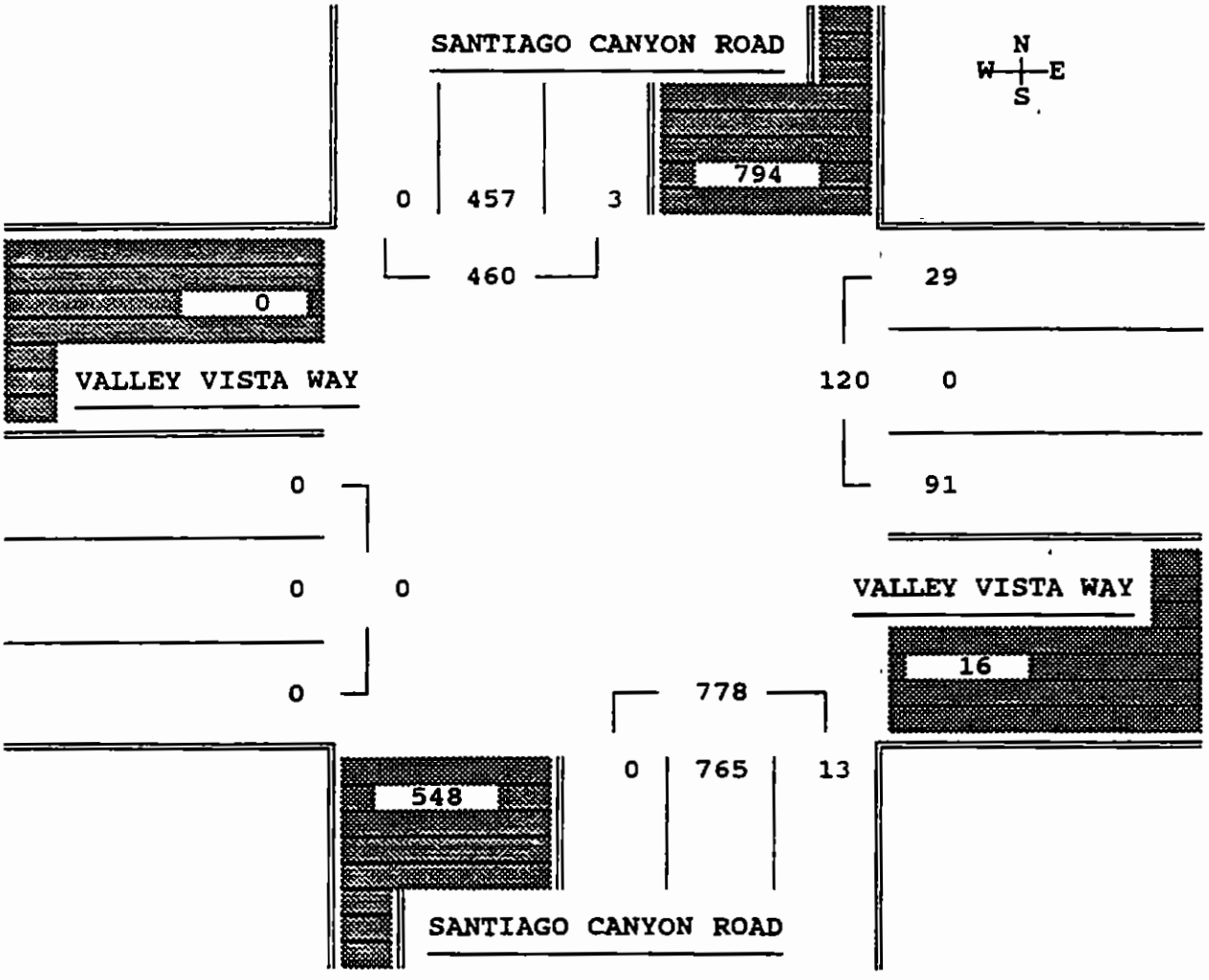
PAGE: 1
FILE: H9507078

Movements by: VEHICLES

DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.86	0	457	3	460	0	99	1
East	7:00 AM	0.70	29	0	91	120	24	0	76
South	7:00 AM	0.91	13	765	0	778	2	98	0
West	7:00 AM	0.00	0	0	0	0	0	0	0
Entire Intersection									
North	7:00 AM	0.86	0	457	3	460	0	99	1
East		0.70	29	0	91	120	24	0	76
South		0.91	13	765	0	778	2	98	0
West		0.00	0	0	0	0	0	0	0



TURNING MOVEMENTS by Traffic Counts, Inc

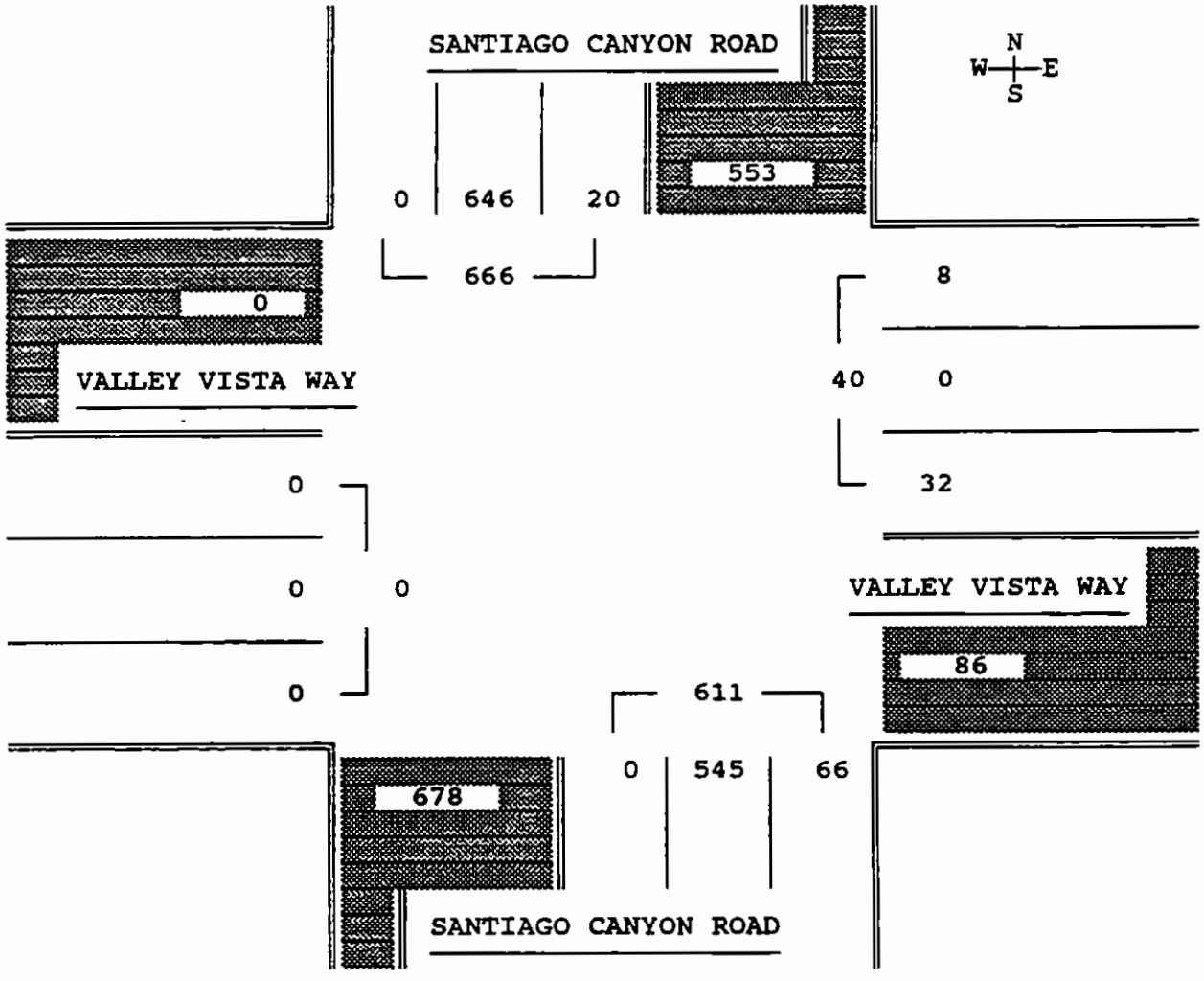
Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: VALLEY VISTA WAY
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507078
DATE: 8/02/95

Movements by: VEHICLES

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.91	0	646	20	666	0	97	3
East	4:00 PM	0.77	10	0	33	43	23	0	77
South	5:00 PM	0.92	66	545	0	611	11	89	0
West	5:00 PM	0.00	0	0	0	0	0	0	0
Entire Intersection									
North	5:00 PM	0.91	0	646	20	666	0	97	3
East		0.77	8	0	32	40	20	0	80
South		0.92	66	545	0	611	11	89	0
West		0.00	0	0	0	0	0	0	0



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507079
Movements by: VEHICLES
DATE: 8/02/95

Time Begin	From North			From East			From South			From West			Vehicle
	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
7:00 AM	10	84	0	0	0	0	0	193	9	20	0	7	323
7:15	29	114	0	0	0	0	0	206	12	18	0	9	388
7:30	19	97	0	0	0	0	0	179	18	30	0	7	350
7:45	21	114	0	0	0	0	0	162	4	35	0	9	345
HR TOTAL	79	409	0	0	0	0	0	740	43	103	0	32	1406
8:00 AM	21	70	0	0	0	0	0	140	9	27	0	6	273
8:15	11	104	0	0	0	0	0	95	12	21	0	4	247
8:30	18	83	0	0	0	0	0	102	16	19	0	9	247
8:45	11	91	0	0	0	0	0	82	6	21	0	7	218
HR TOTAL	61	348	0	0	0	0	0	419	43	88	0	26	985
Break													
4:00 PM	6	104	0	0	0	0	0	137	17	14	0	10	288
4:15	5	117	0	0	0	0	0	141	22	17	0	9	311
4:30	10	123	0	0	0	0	0	120	23	19	0	17	312
4:45	8	145	0	0	0	0	0	132	29	20	0	14	348
HR TOTAL	29	489	0	0	0	0	0	530	91	70	0	50	1259
5:00 PM	11	149	0	0	0	0	0	133	20	13	0	20	346
5:15	14	160	0	0	0	0	0	130	33	29	0	22	388
5:30	6	174	0	0	0	0	0	141	42	30	0	22	415
5:45	7	162	0	0	0	0	0	148	35	38	0	13	403
HR TOTAL	38	645	0	0	0	0	0	552	130	110	0	77	1552
DAY TOTAL	207	1891	0	0	0	0	0	2241	307	371	0	185	5202

TURNING MOVEMENTS by Traffic Counts, Inc

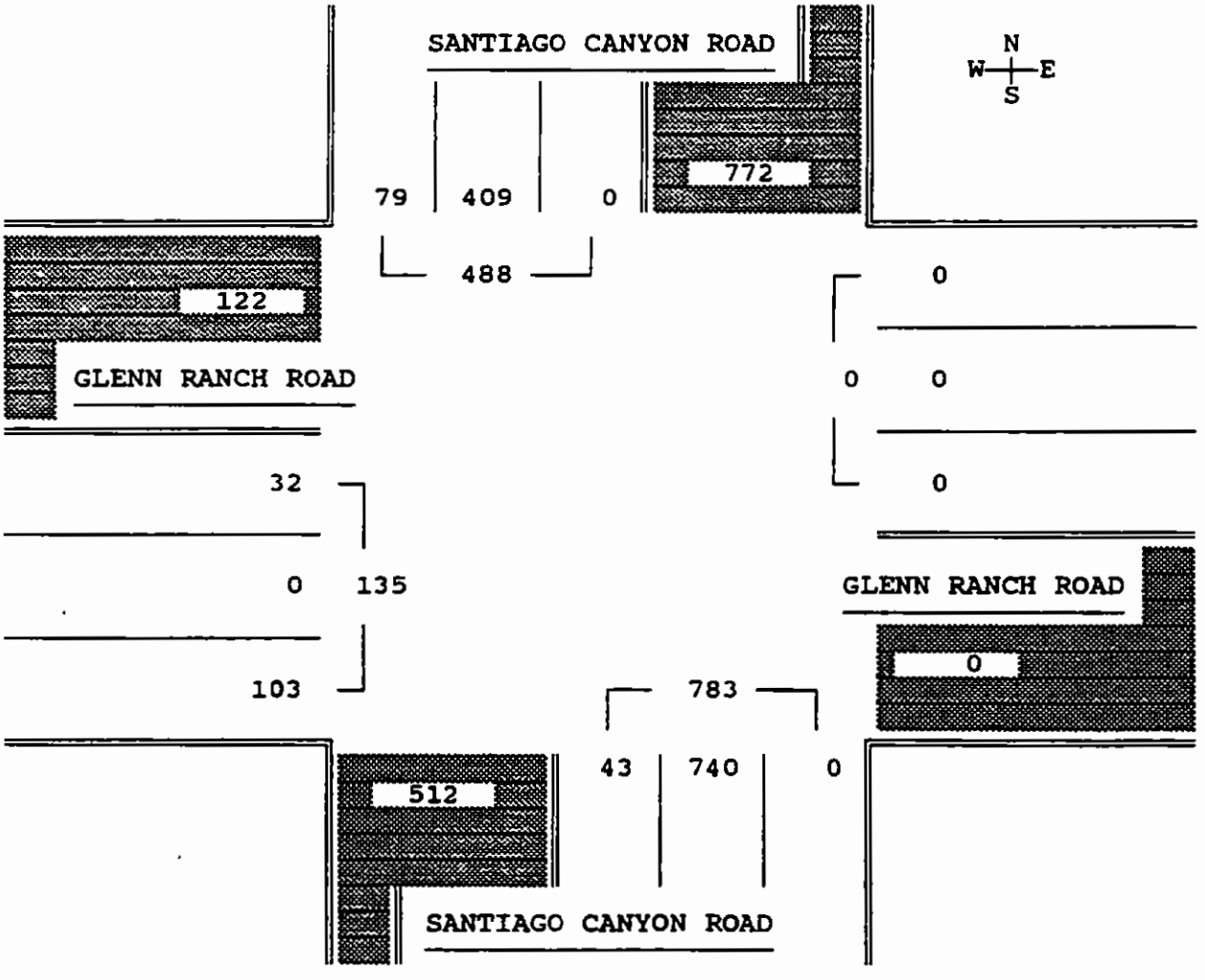
Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507079
DATE: 8/02/95

Movements by: VEHICLES

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.85	79	409	0	488	16	84	0
East	7:00 AM	0.00	0	0	0	0	0	0	0
South	7:00 AM	0.90	0	740	43	783	0	95	5
West	7:15 AM	0.80	110	0	31	141	78	0	22
Entire Intersection									
North	7:00 AM	0.85	79	409	0	488	16	84	0
East		0.00	0	0	0	0	0	0	0
South		0.90	0	740	43	783	0	95	5
West		0.77	103	0	32	135	76	0	24



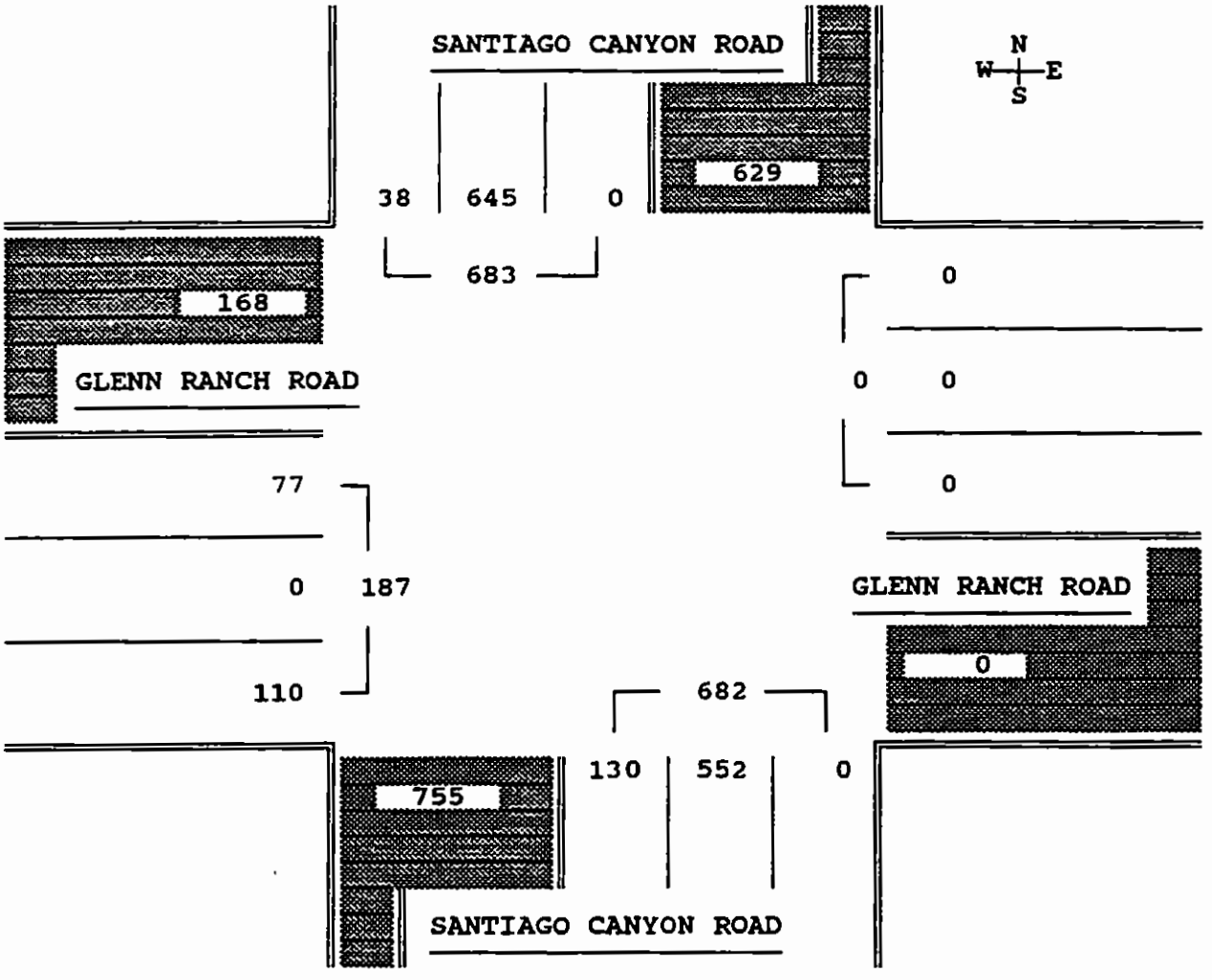
TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SANTIAGO CANYON ROAD
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507079
Movements by: VEHICLES
DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.95	38	645	0	683	6	94	0
East	5:00 PM	0.00	0	0	0	0	0	0	0
South	5:00 PM	0.93	0	552	130	682	0	81	19
West	5:00 PM	0.90	110	0	77	187	59	0	41
Entire Intersection									
North	5:00 PM	0.95	38	645	0	683	6	94	0
East		0.00	0	0	0	0	0	0	0
South		0.93	0	552	130	682	0	81	19
West		0.90	110	0	77	187	59	0	41



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SADDLEBACK RANCH ROAD
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9507080

Movements by: VEHICLES

DATE: 8/02/95

Time Begin	From North			From East			From South			From West			Vehicle Total
	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
7:00 AM	91	0	18	11	19	0	0	0	0	0	5	15	159
7:15	93	0	19	9	27	0	0	0	0	0	8	12	168
7:30	94	0	28	9	21	0	0	0	0	0	6	16	174
7:45	74	0	17	3	24	0	0	0	0	0	14	8	140
HR TOTAL	352	0	82	32	91	0	0	0	0	0	33	51	641
8:00 AM	68	0	28	7	20	0	0	0	0	0	5	16	144
8:15	46	0	19	6	12	0	0	0	0	0	5	18	106
8:30	69	0	25	16	12	0	0	0	0	0	7	4	133
8:45	71	0	21	13	11	0	0	0	0	0	5	3	124
HR TOTAL	254	0	93	42	55	0	0	0	0	0	22	41	507
Break													
4:00 PM	17	0	13	15	7	0	0	0	0	0	8	31	91
4:15	29	0	17	24	6	0	0	0	0	0	12	47	135
4:30	10	0	12	23	10	0	0	0	0	0	20	52	127
4:45	18	0	19	25	10	0	0	0	0	0	18	58	148
HR TOTAL	74	0	61	87	33	0	0	0	0	0	58	188	501
5:00 PM	22	0	15	19	15	0	0	0	0	0	25	71	167
5:15	30	0	20	32	16	0	0	0	0	0	27	48	173
5:30	23	0	25	33	9	0	0	0	0	0	29	80	199
5:45	21	0	27	29	15	0	0	0	0	0	19	98	209
HR TOTAL	96	0	87	113	55	0	0	0	0	0	100	297	748
DAY TOTAL	776	0	323	274	234	0	0	0	0	0	213	577	2397

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : COUNTY OF ORANGE
N-S Street: SADDLEBACK RANCH ROAD
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

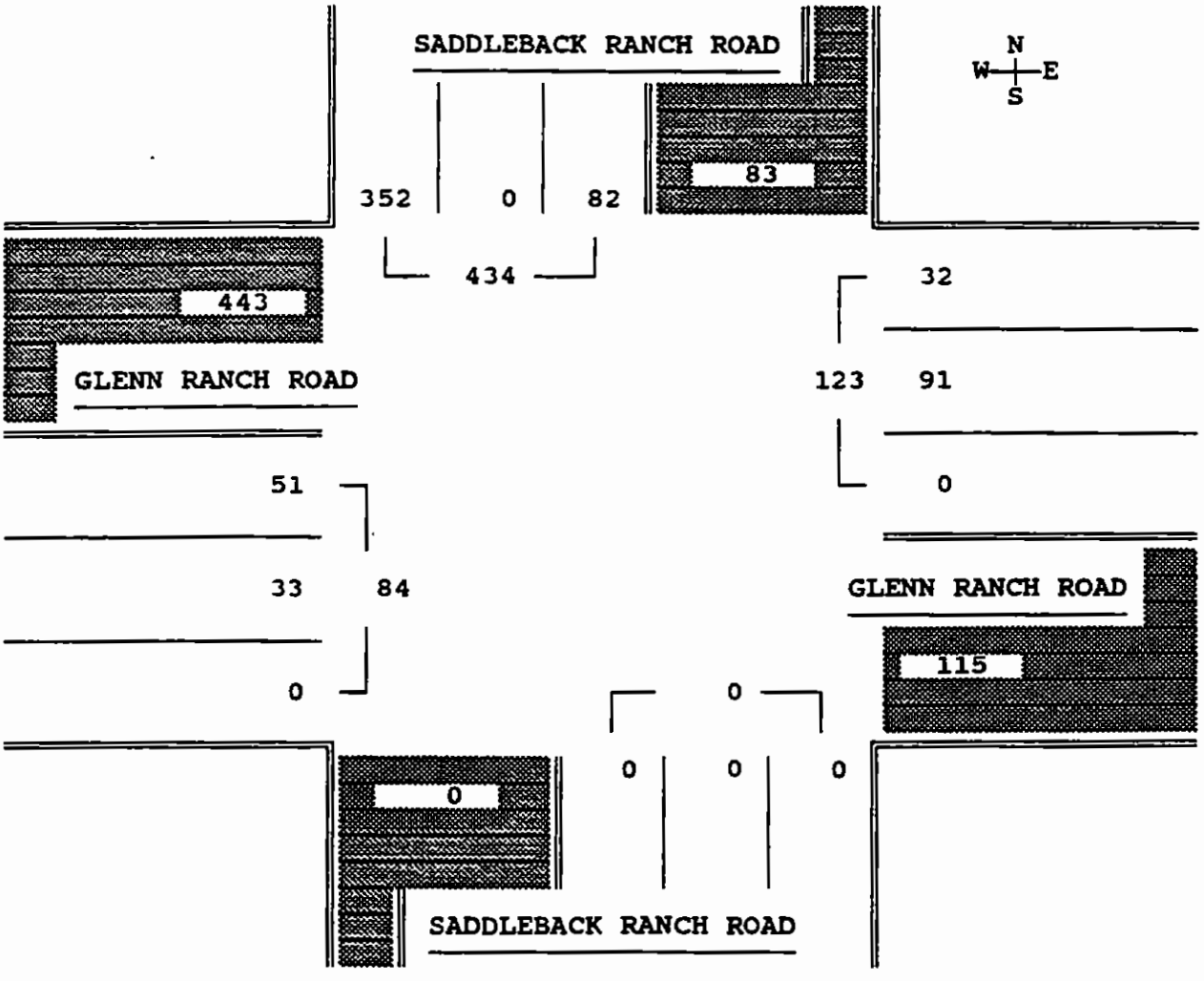
PAGE: 1
FILE: H9507080

Movements by: VEHICLES

DATE: 8/02/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.89	352	0	82	434	81	0	19
East	7:00 AM	0.85	32	91	0	123	26	74	0
South	7:00 AM	0.00	0	0	0	0	0	0	0
West	7:30 AM	0.96	0	30	58	88	0	34	66
Entire Intersection									
North	7:00 AM	0.89	352	0	82	434	81	0	19
East		0.85	32	91	0	123	26	74	0
South		0.00	0	0	0	0	0	0	0
West		0.95	0	33	51	84	0	39	61



TURNING MOVEMENTS by Traffic Counts, Inc

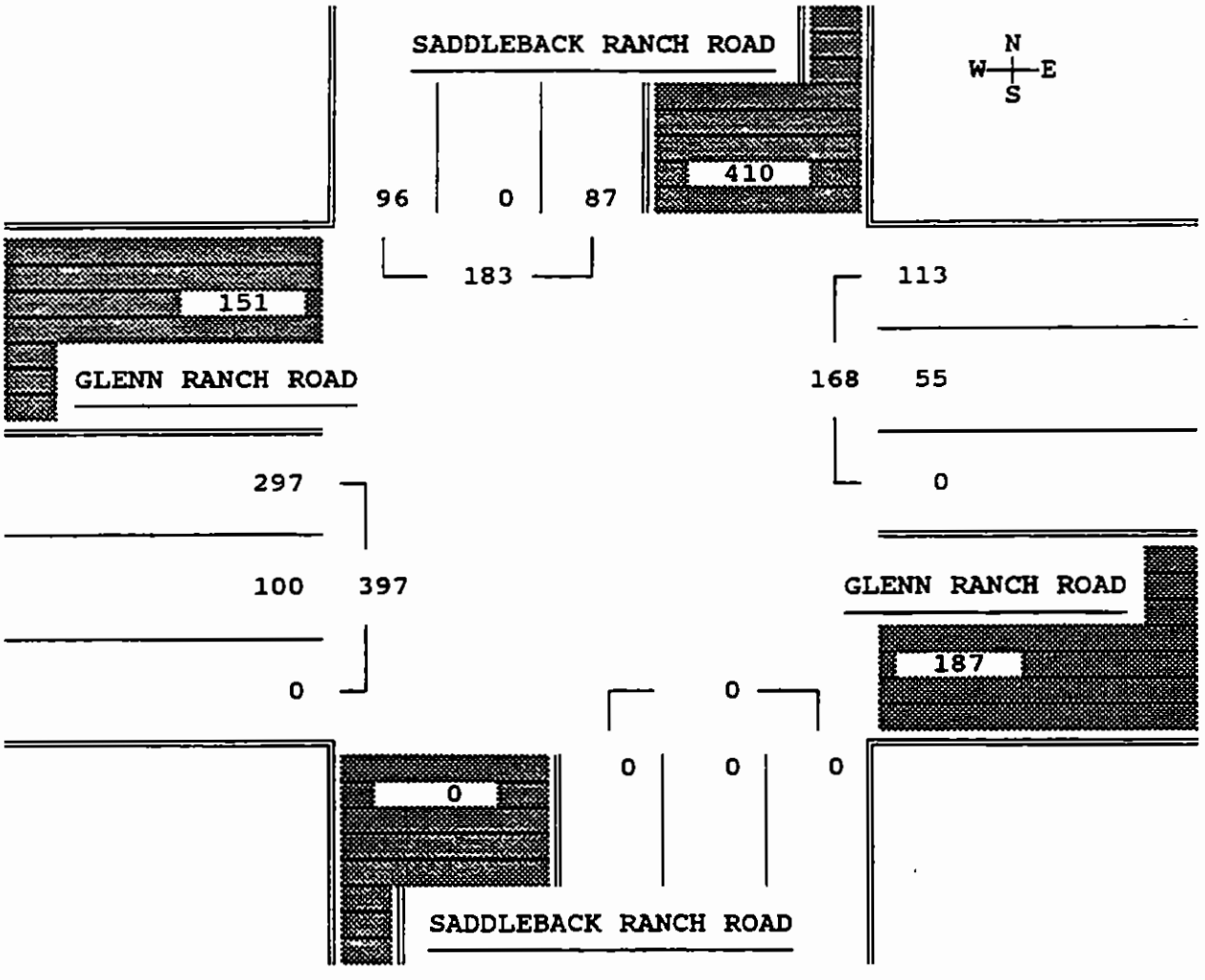
Site Code : COUNTY OF ORANGE
N-S Street: SADDLEBACK RANCH ROAD
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: M9507080
DATE: 8/02/95

Movements by: VEHICLES

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.92	96	0	87	183	52	0	48
East	5:00 PM	0.88	113	55	0	168	67	33	0
South	5:00 PM	0.00	0	0	0	0	0	0	0
West	5:00 PM	0.85	0	100	297	397	0	25	75
Entire Intersection									
North	5:00 PM	0.92	96	0	87	183	52	0	48
East		0.88	113	55	0	168	67	33	0
South		0.00	0	0	0	0	0	0	0
West		0.85	0	100	297	397	0	25	75



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: N9506150

Movements by: VEHICLES

DATE: 6/28/95

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
7:00 AM	0	64	4	1	0	1	0	434	0	0	0	0	504
7:15	0	76	4	1	0	0	3	465	0	0	0	0	549
7:30	0	83	1	3	0	1	0	491	0	0	0	0	579
7:45	0	89	1	0	0	1	2	465	0	0	0	0	558
HR TOTAL	0	312	10	5	0	3	5	1855	0	0	0	0	2190
8:00 AM	0	64	0	0	0	0	1	348	0	0	0	0	413
8:15	0	74	3	0	0	1	0	321	0	0	0	0	399
8:30	0	93	1	2	0	0	0	275	0	0	0	0	371
8:45	0	92	1	2	0	1	0	329	0	0	0	0	425
HR TOTAL	0	323	5	4	0	2	1	1273	0	0	0	0	1608
Break													
4:00 PM	0	262	0	1	0	0	1	141	0	0	0	0	405
4:15	0	258	11	0	0	1	2	121	0	0	0	0	393
4:30	0	294	1	0	0	2	0	115	0	0	0	0	412
4:45	0	348	0	1	0	1	2	145	0	0	0	0	497
HR TOTAL	0	1162	12	2	0	4	5	522	0	0	0	0	1707
5:00 PM	0	432	2	1	0	2	2	138	0	0	0	0	577
5:15	0	501	5	4	0	10	2	132	0	0	0	0	654
5:30	0	480	3	1	0	1	6	145	0	0	0	0	636
5:45	0	522	10	2	0	1	13	137	0	0	0	0	685
HR TOTAL	0	1935	20	8	0	14	23	552	0	0	0	0	2552
DAY TOTAL	0	3732	47	19	0	23	34	4202	0	0	0	0	8057

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

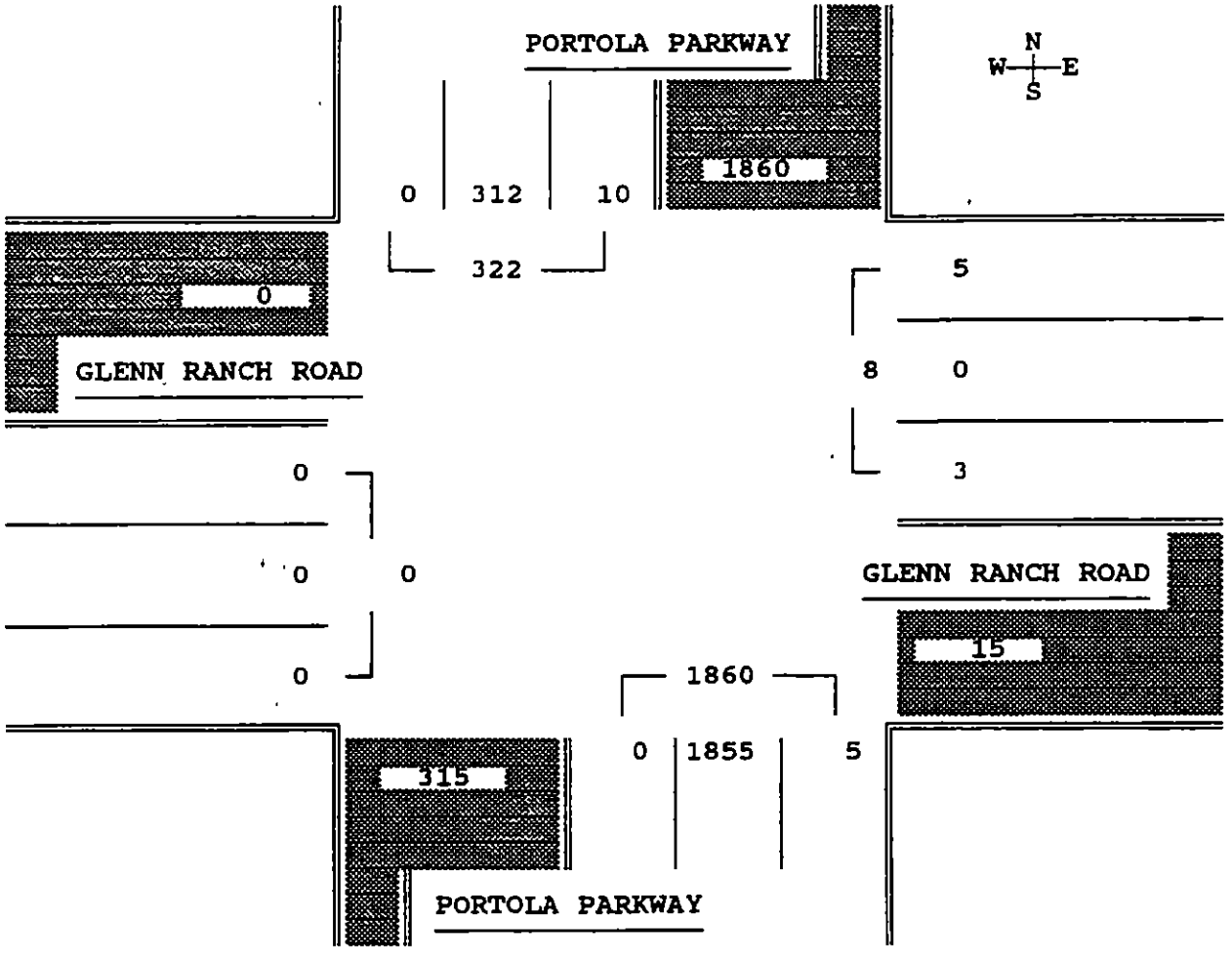
PAGE: 1
FILE: N9506150

Movements by: VEHICLES

DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	8:00 AM	0.87	0	323	5	328	0	98	2
East	7:00 AM	0.50	5	0	3	8	62	0	38
South	7:00 AM	0.95	5	1855	0	1860	0	%100	0
West	7:00 AM	0.00	0	0	0	0	0	0	0
Entire Intersection									
North	7:00 AM	0.89	0	312	10	322	0	97	3
East		0.50	5	0	3	8	62	0	38
South		0.95	5	1855	0	1860	0	%100	0
West		0.00	0	0	0	0	0	0	0



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: GLENN RANCH ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: M9506150

Movements by: VEHICLES

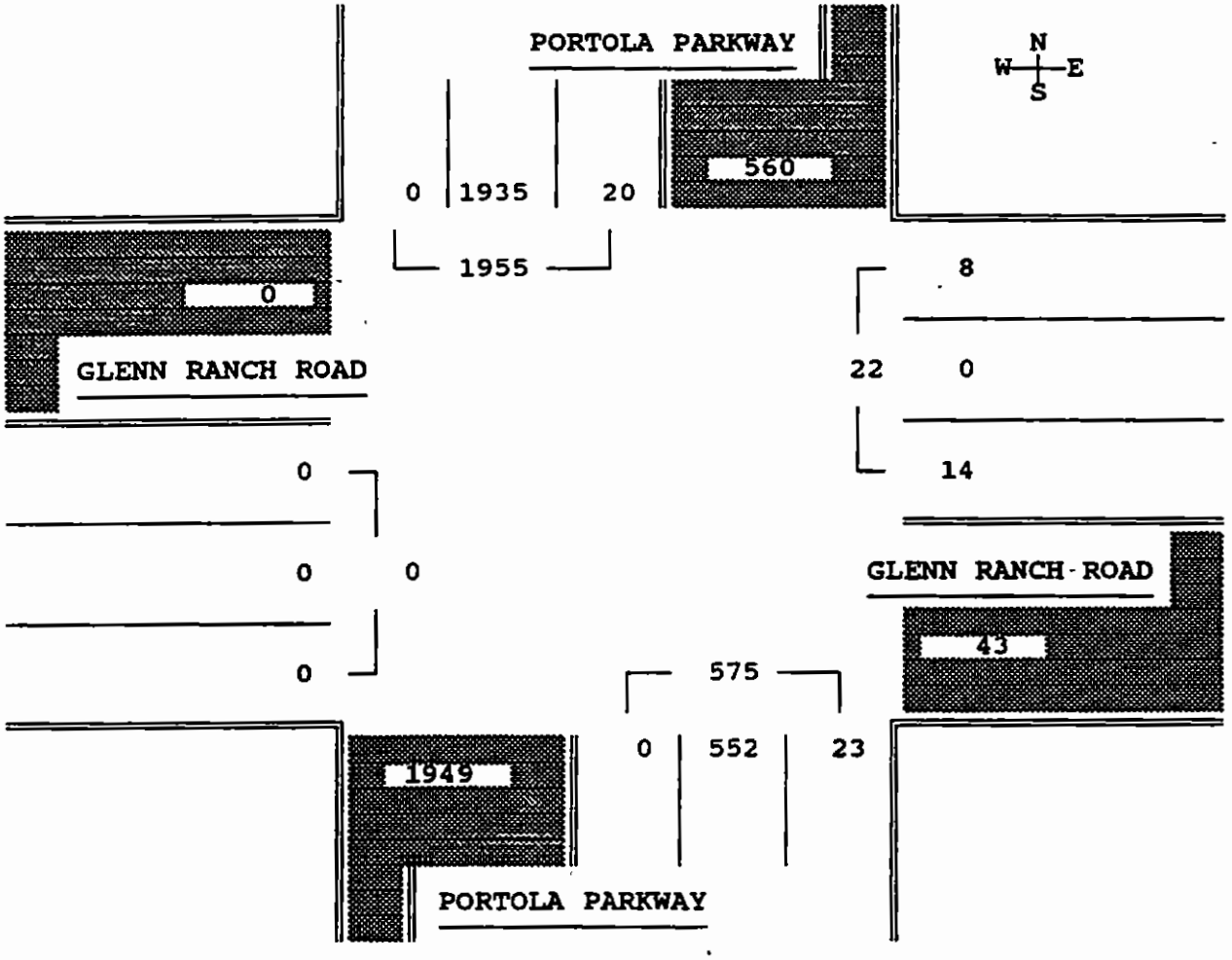
DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.92	0	1935	20	1955	0	99	1
East	5:00 PM	0.39	8	0	14	22	36	0	64
South	5:00 PM	0.95	23	552	0	575	4	96	0
West	5:00 PM	0.00	0	0	0	0	0	0	0

Entire Intersection

North	5:00 PM	0.92	0	1935	20	1955	0	99	1
East		0.39	8	0	14	22	36	0	64
South		0.95	23	552	0	575	4	96	0
West		0.00	0	0	0	0	0	0	0



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: 241FTC RAMPS
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9506149
Movements by: VEHICLES
DATE: 6/28/95

Time Begin	From North RT	THRU	LT	From East RT	THRU	LT	From South RT	THRU	LT	From West RT	THRU	LT	Vehicle Total
7:00 AM	16	47	5	88	0	3	4	250	91	6	0	1	511
7:15	14	47	10	97	0	12	3	255	85	4	0	1	528
7:30	18	61	10	116	0	5	3	284	101	3	0	3	604
7:45	12	64	13	157	0	10	4	260	68	2	0	3	593
HR TOTAL	60	219	38	458	0	30	14	1049	345	15	0	8	2236
8:00 AM	10	48	8	80	0	6	0	226	74	1	0	1	454
8:15	8	68	6	82	0	7	1	179	43	4	0	0	398
8:30	8	68	12	50	0	5	5	172	60	1	0	1	382
8:45	3	72	10	47	0	4	3	133	27	10	0	2	311
HR TOTAL	29	256	36	259	0	22	9	710	204	16	0	4	1545
Break													
4:00 PM	3	217	43	14	0	3	4	119	8	11	0	4	426
4:15	2	201	49	17	0	3	3	99	11	23	0	4	412
4:30	7	267	49	19	0	4	1	98	2	28	0	7	482
4:45	3	278	62	11	0	5	3	130	5	37	0	3	537
HR TOTAL	15	963	203	61	0	15	11	446	26	99	0	18	1857
5:00 PM	2	370	81	15	0	3	4	104	9	45	0	11	644
5:15	0	395	102	18	0	2	8	103	14	61	0	13	716
5:30	1	373	130	19	0	6	2	113	13	57	0	10	724
5:45	4	409	102	17	0	5	5	135	8	61	0	16	762
HR TOTAL	7	1547	415	69	0	16	19	455	44	224	0	50	2846
DAY TOTAL	111	2985	692	847	0	83	53	2660	619	354	0	80	8484

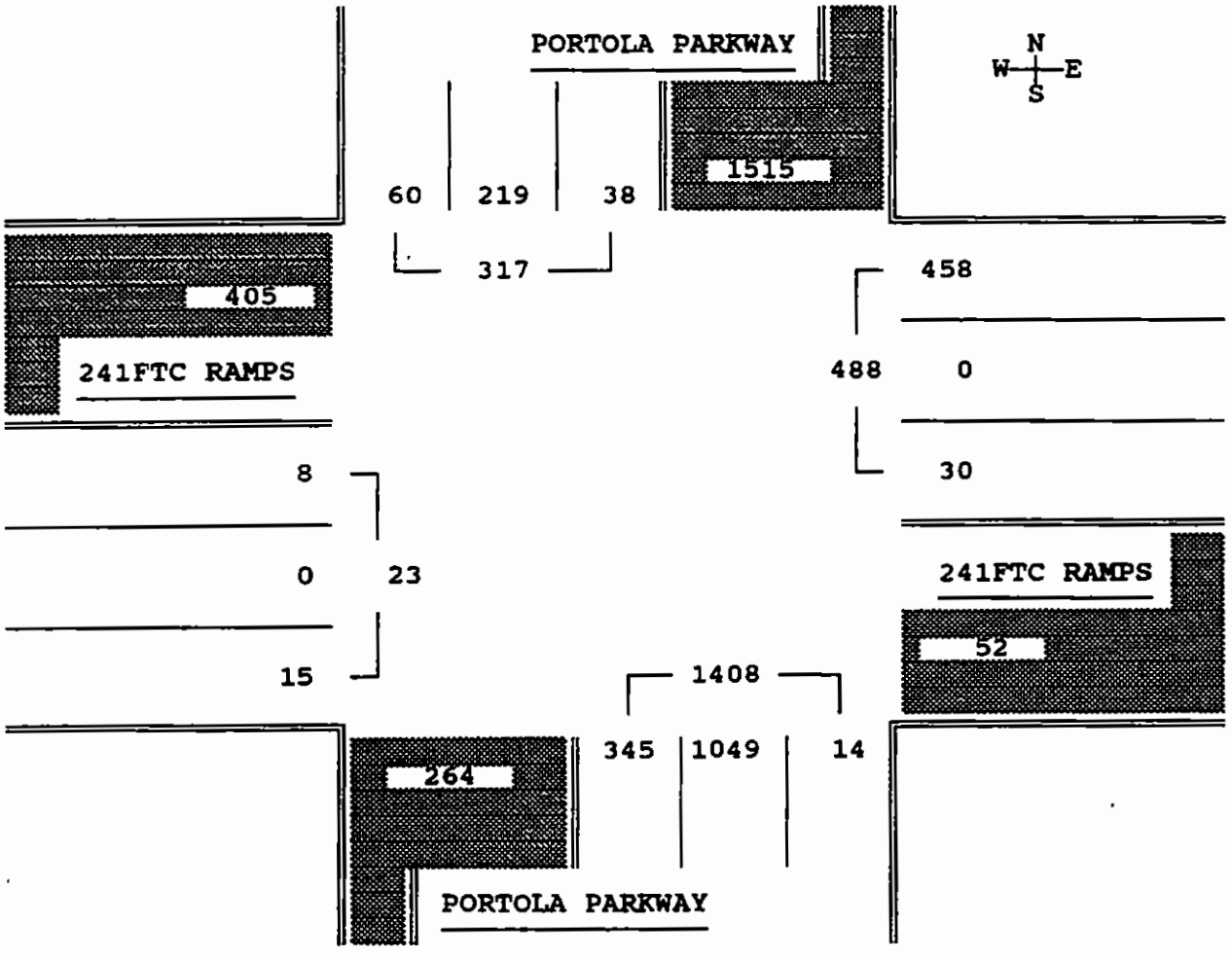
TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: 241FTC RAMPS
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9506149
Movements by: VEHICLES
DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:30 AM	0.92	48	241	37	326	15	74	11
East	7:00 AM	0.73	458	0	30	488	94	0	6
South	7:00 AM	0.91	14	1049	345	1408	1	75	25
West	7:00 AM	0.82	15	0	8	23	65	0	35
Entire Intersection									
North	7:00 AM	0.89	60	219	38	317	19	69	12
East		0.73	458	0	30	488	94	0	6
South		0.91	14	1049	345	1408	1	75	25
West		0.82	15	0	8	23	65	0	35



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: 241FTC RAMPS
Client : RKJK & ASSOC.

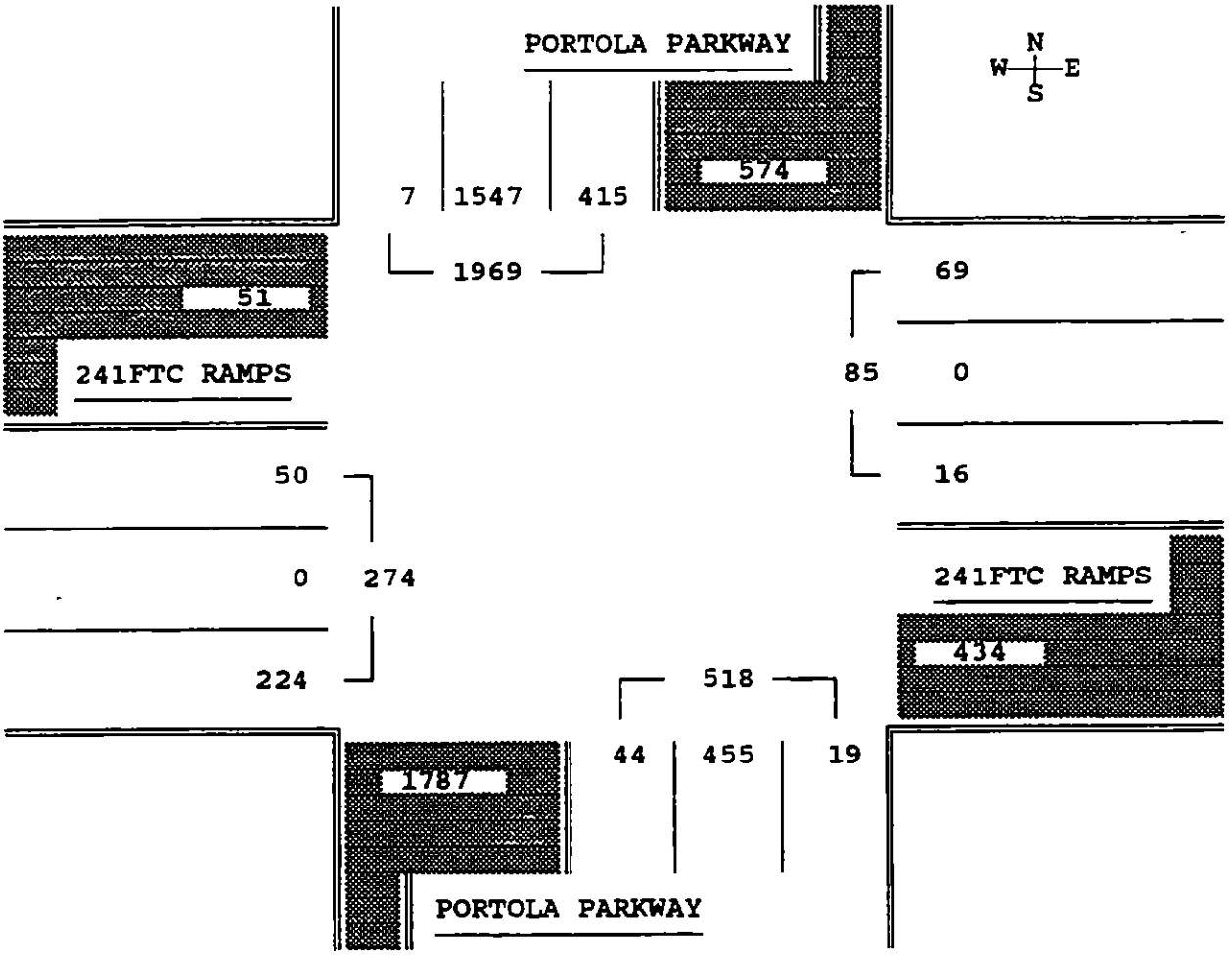
PAGE: 1
FILE: N9506149

Movements by: VEHICLES

DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.96	7	1547	415	1969	0	79	21
East	5:00 PM	0.85	69	0	16	85	81	0	19
South	5:00 PM	0.88	19	455	44	518	4	88	8
West	5:00 PM	0.89	224	0	50	274	82	0	18
Entire Intersection									
North	5:00 PM	0.96	7	1547	415	1969	0	79	21
East		0.85	69	0	16	85	81	0	19
South		0.88	19	455	44	518	4	88	8
West		0.89	224	0	50	274	82	0	18



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: EL TORO ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9506145

Movements by: VEHICLES

DATE: 6/28/95

Time	From North			From East			From South			From West			Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
7:00 AM	15	41	12	51	62	6	9	235	80	62	42	23	638
7:15	22	45	5	70	78	4	1	298	72	58	46	18	717
7:30	20	53	5	68	82	3	10	322	122	49	46	9	789
7:45	24	65	7	92	104	7	17	250	139	55	37	12	809
HR TOTAL	81	204	29	281	326	20	37	1105	413	224	171	62	2953
8:00 AM	14	39	8	62	53	3	4	256	69	58	46	11	623
8:15	14	52	9	46	81	3	6	224	75	54	27	10	601
8:30	18	53	8	41	69	4	4	176	79	40	21	14	527
8:45	20	63	10	26	74	6	3	124	76	51	42	17	512
HR TOTAL	66	207	35	175	277	16	17	780	299	203	136	52	2263
Break													
4:00 PM	56	246	67	57	65	5	14	90	31	133	106	9	879
4:15	27	127	47	33	76	7	12	90	35	105	59	14	632
4:30	19	122	32	15	61	4	19	79	97	109	84	10	651
4:45	18	129	50	13	58	8	13	86	75	111	73	14	648
HR TOTAL	120	624	196	118	260	24	58	345	238	458	322	47	2810
5:00 PM	15	287	44	20	28	6	11	86	89	104	67	19	776
5:15	26	314	66	20	49	1	6	90	94	142	74	18	900
5:30	29	325	57	20	68	8	19	91	110	136	92	26	981
5:45	21	314	89	25	46	7	23	109	84	120	100	27	965
HR TOTAL	91	1240	256	85	191	22	59	376	377	502	333	90	3622
DAY TOTAL	358	2275	516	659	1054	82	171	2606	1327	1387	962	251	11648

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: EL TORO ROAD
Client : RKJK & ASSOC.

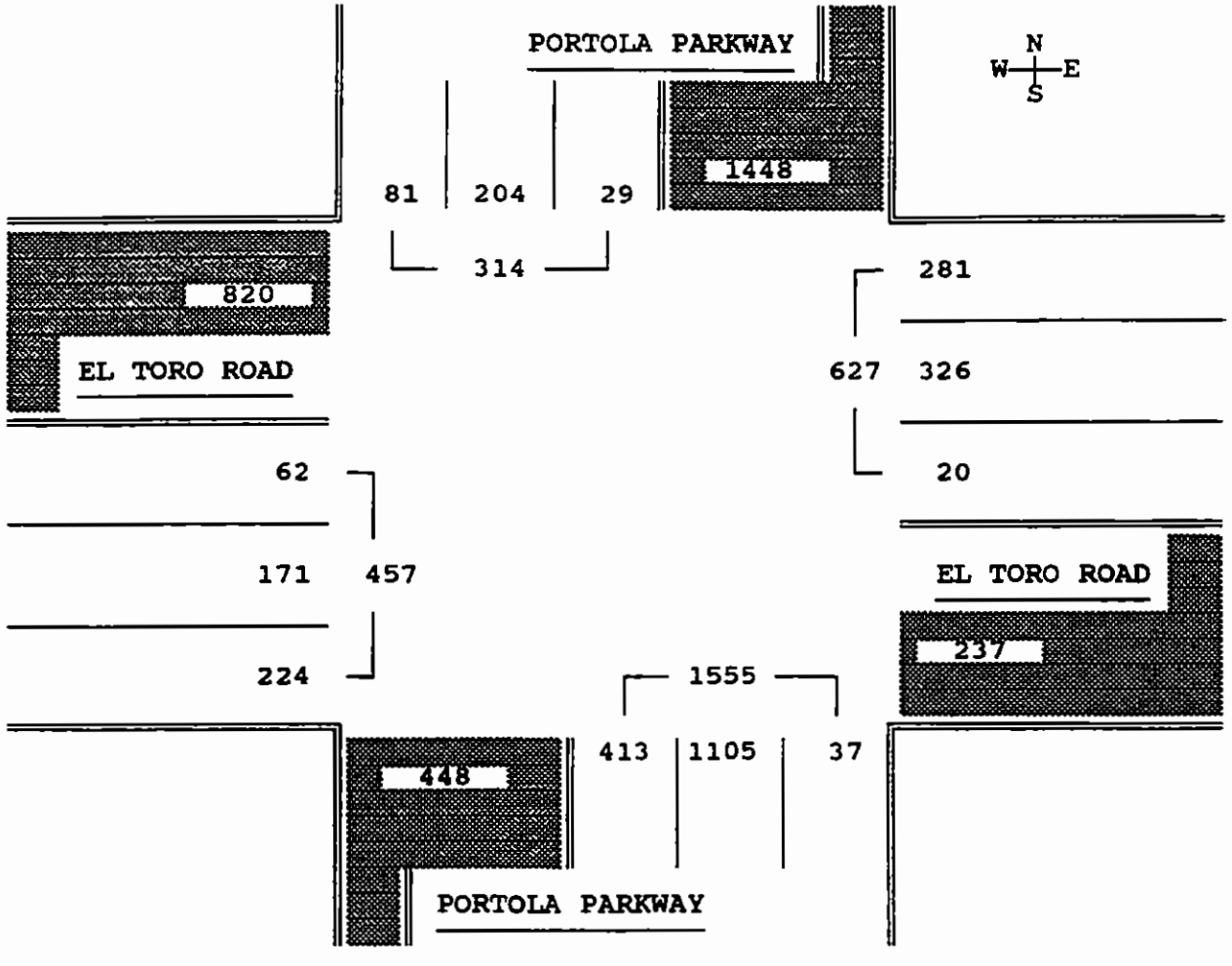
PAGE: 1
FILE: H9506145

Movements by: VEHICLES

DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:00 AM	0.82	81	204	29	314	26	65	9
East	7:00 AM	0.77	281	326	20	627	45	52	3
South	7:15 AM	0.86	32	1126	402	1560	2	72	26
West	7:00 AM	0.90	224	171	62	457	49	37	14
Entire Intersection									
North	7:00 AM	0.82	81	204	29	314	26	65	9
East		0.77	281	326	20	627	45	52	3
South		0.86	37	1105	413	1555	2	71	27
West		0.90	224	171	62	457	49	37	14



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: PORTOLA PARKWAY
E-W Street: EL TORO ROAD
Client : RKJK & ASSOC.

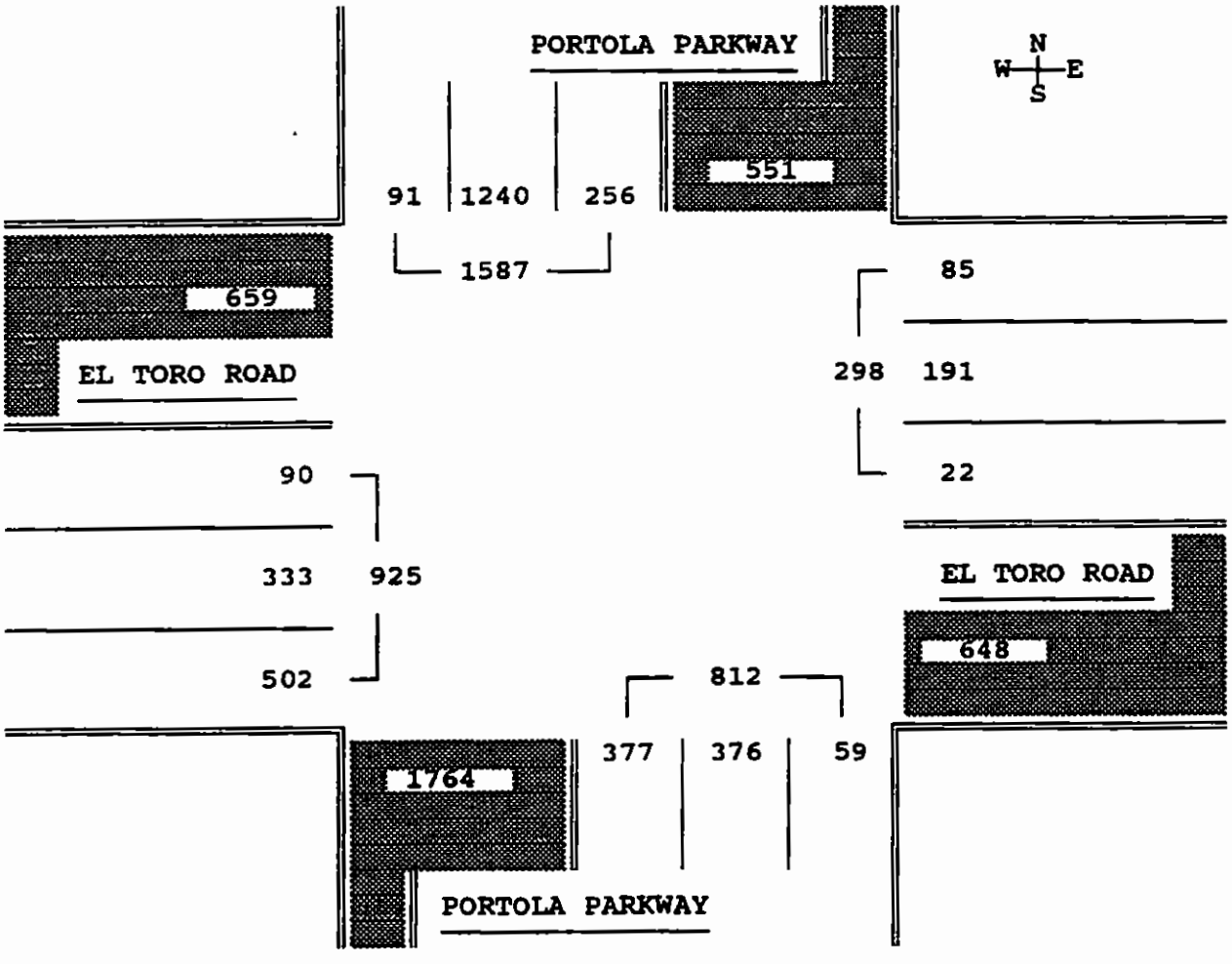
PAGE: 1
FILE: N9506145

Movements by: VEHICLES

DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.94	91	1240	256	1587	6	78	16
East	4:00 PM	0.79	118	260	24	402	29	65	6
South	5:00 PM	0.92	59	376	377	812	7	46	46
West	5:00 PM	0.91	502	333	90	925	54	36	10
Entire Intersection									
North	5:00 PM	0.94	91	1240	256	1587	6	78	16
East		0.78	85	191	22	298	29	64	7
South		0.92	59	376	377	812	7	46	46
West		0.91	502	333	90	925	54	36	10



TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: MARGUERITE PARKWAY
E-W Street: EL TORO ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: M9506146

Movements by: VEHICLES

DATE: 6/28/95

Time Begin	From North RT	From North THRU	From North LT	From East RT	From East THRU	From East LT	From South RT	From South THRU	From South LT	From West RT	From West THRU	From West LT	Vehicle Total
7:00 AM	0	0	0	0	58	89	72	0	37	4	41	0	301
7:15	0	0	0	0	70	93	73	0	30	7	52	0	325
7:30	0	0	0	0	57	78	74	0	52	11	54	0	326
7:45	0	0	0	0	99	100	51	0	44	17	53	0	364
HR TOTAL	0	0	0	0	284	360	270	0	163	39	200	0	1316
8:00 AM	0	0	0	0	64	68	80	0	32	15	48	0	307
8:15	0	0	0	0	81	79	37	0	22	6	40	0	265
8:30	0	0	0	0	80	48	36	0	28	4	38	0	234
8:45	0	0	0	0	67	63	28	0	10	11	41	0	220
HR TOTAL	0	0	0	0	292	258	181	0	92	36	167	0	1026
Break													
4:00 PM	0	0	0	0	43	82	95	0	14	26	49	0	309
4:15	0	0	0	0	51	94	72	0	14	23	63	0	317
4:30	0	0	0	0	47	80	95	0	16	29	59	0	326
4:45	0	0	0	0	50	115	129	0	9	45	68	0	416
HR TOTAL	0	0	0	0	191	371	391	0	53	123	239	0	1368
5:00 PM	0	0	0	0	58	124	100	0	13	41	76	0	412
5:15	0	0	0	0	49	131	120	0	12	51	57	0	420
5:30	0	0	0	0	56	139	113	0	14	50	75	0	447
5:45	0	0	0	0	53	177	94	0	19	52	79	0	474
HR TOTAL	0	0	0	0	216	571	427	0	58	194	287	0	1753
DAY TOTAL	0	0	0	0	983	1560	1269	0	366	392	893	0	5463

TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: MARGUERITE PARKWAY
E-W Street: EL TORO ROAD
Client : RKJK & ASSOC.

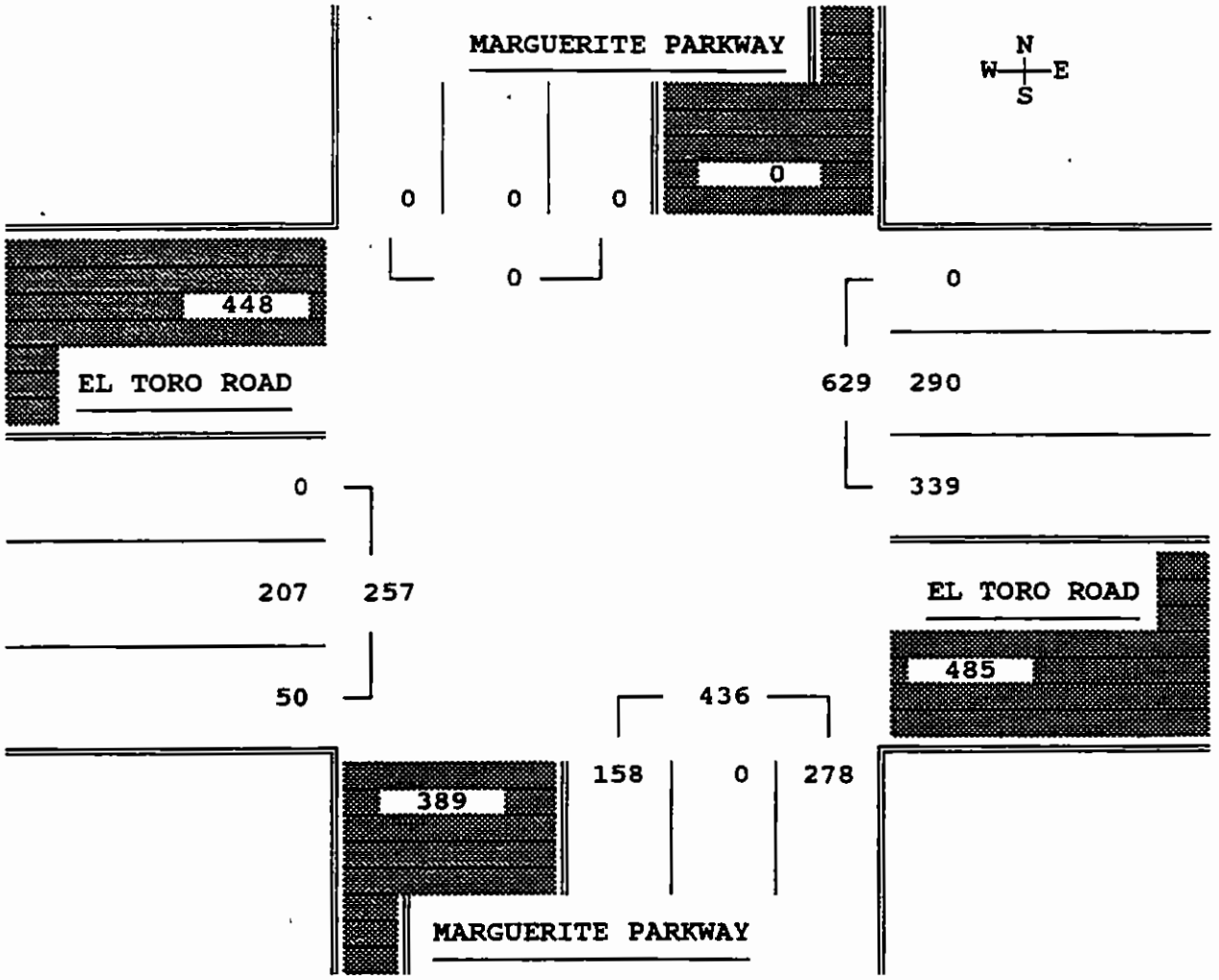
PAGE: 1
FILE: H9506146

Movements by: VEHICLES

DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:00 AM - 9:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	12:00 AM	0.00	0	0	0	0	0	0	0
East	7:00 AM	0.81	0	284	360	644	0	44	56
South	7:15 AM	0.87	278	0	158	436	64	0	36
West	7:15 AM	0.92	50	207	0	257	19	81	0
Entire Intersection									
North	7:15 AM	0.00	0	0	0	0	0	0	0
East		0.79	0	290	339	629	0	46	54
South		0.87	278	0	158	436	64	0	36
West		0.92	50	207	0	257	19	81	0



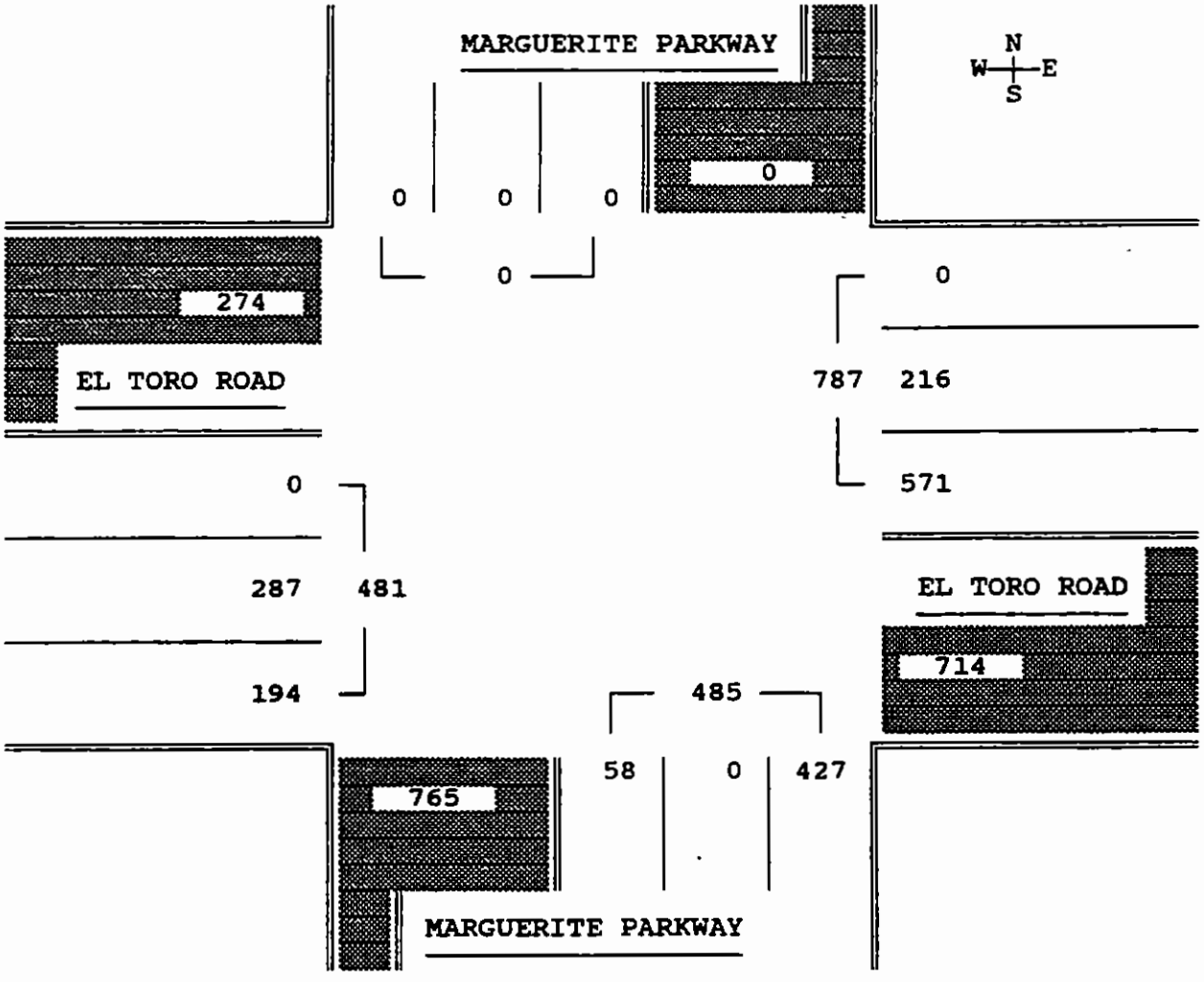
TURNING MOVEMENTS by Traffic Counts, Inc

Site Code : MISSION VIEJO
N-S Street: MARGUERITE PARKWAY
E-W Street: EL TORO ROAD
Client : RKJK & ASSOC.

PAGE: 1
FILE: H9506146
Movements by: VEHICLES
DATE: 6/28/95

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	4:15 PM	0.00	0	0	0	0	0	0	0
East	5:00 PM	0.86	0	216	571	787	0	27	73
South	4:45 PM	0.92	462	0	48	510	91	0	9
West	5:00 PM	0.92	194	287	0	481	40	60	0
Entire Intersection									
North	5:00 PM	0.00	0	0	0	0	0	0	0
East		0.86	0	216	571	787	0	27	73
South		0.92	427	0	58	485	88	0	12
West		0.92	194	287	0	481	40	60	0



APPENDIX C

ICU CALCULATIONS - EXISTING

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00
NT	1.0	1700	1248	0.73*
NR	1.0	1700	5	0.01-
SL	1.0	1700	9	0.01*
ST	1.0	1700	349	0.21
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	1.0	1700	12	0.01
WT	0.0	0	0	0.00
WR	1.0	1700	44	0.03-*
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.82 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00*
NT	1.0	1700	461	0.27
NR	1.0	1700	17	0.01-
SL	1.0	1700	34	0.02
ST	1.0	1700	865	0.51*
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	1.0	1700	7	0.01*
WT	0.0	0	0	0.00
WR	1.0	1700	15	0.01-
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.57 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	5	0.01
NT	1.0	1700	1069	0.63*
NR	0.0	0	0	0.00
SL	0.0	0	0	0.00*
ST	1.0	1700	387	0.23
SR	1.0	1700	28	0.02-
EL	0.0	1700	156	0.09
ET	1.0	1700	0	0.10*
ER	0.0	1700	7	0.01
WL	0.0	0	0	0.00
WT	0.0	0	0	0.00
WR	0.0	0	0	0.00
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.78 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	20	0.01*
NT	1.0	1700	452	0.27
NR	0.0	0	0	0.00
SL	0.0	0	0	0.00
ST	1.0	1700	797	0.47*
SR	1.0	1700	156	0.08-
EL	0.0	1700	36	0.02*
ET	1.0	1700	0	0.02
ER	0.0	1700	4	0.01
WL	0.0	0	0	0.00
WT	0.0	0	0	0.00
WR	0.0	0	0	0.00
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.55 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00
NT	1.0	1700	813	0.48*
NR	1.0	1700	37	0.02-
SL	1.0	1700	112	0.07*
ST	1.0	1700	284	0.17
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	1.0	1700	52	0.03
WT	0.0	0	0	0.00
WR	1.0	1700	266	0.14-*
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.74 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00
NT	1.0	1700	378	0.22*
NR	1.0	1700	95	0.05-
SL	1.0	1700	223	0.13*
ST	1.0	1700	581	0.34
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	1.0	1700	40	0.02
WT	0.0	0	0	0.00
WR	1.0	1700	94	0.05-*
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.45 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	25	0.01
NT	1.0	1700	768	0.45*
NR	0.0	0	0	0.00
SL	0.0	0	0	0.00*
ST	1.0	1700	337	0.20
SR	1.0	1700	10	0.01-
EL	0.0	1700	82	0.05
ET	1.0	1700	0	0.12*
ER	0.0	1700	123	0.07
WL	0.0	0	0	0.00
WT	0.0	0	0	0.00
WR	0.0	0	0	0.00
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.62 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	115	0.07*
NT	1.0	1700	441	0.26
NR	0.0	0	0	0.00
SL	0.0	0	0	0.00
ST	1.0	1700	597	0.35*
SR	1.0	1700	21	0.01-
EL	0.0	1700	28	0.02
ET	1.0	1700	0	0.06*
ER	0.0	1700	78	0.05
WL	0.0	0	0	0.00
WT	0.0	0	0	0.00
WR	0.0	0	0	0.00
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.53 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00
NT	1.0	1700	765	0.45*
NR	1.0	1700	13	0.01-
SL	1.0	1700	3	0.01*
ST	1.0	1700	457	0.27
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	0.0	1700	91	0.05
WT	1.0	1700	0	0.07*
WR	0.0	1700	29	0.02
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.58 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00*
NT	1.0	1700	545	0.32
NR	1.0	1700	66	0.03-
SL	1.0	1700	20	0.01
ST	1.0	1700	646	0.38*
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	0.0	1700	32	0.02*
WT	1.0	1700	0	0.02
WR	0.0	1700	8	0.01
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.45 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	43	0.03
NT	1.0	1700	740	0.44*
NR	0.0	0	0	0.00
SL	0.0	0	0	0.00*
ST	1.0	1700	409	0.24
SR	1.0	1700	79	0.04-
EL	1.0	1700	32	0.02
ET	0.0	0	0	0.00
ER	1.0	1700	103	0.05-*
WL	0.0	0	0	0.00
WT	0.0	0	0	0.00
WR	0.0	0	0	0.00
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.54 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	130	0.08*
NT	1.0	1700	552	0.32
NR	0.0	0	0	0.00
SL	0.0	0	0	0.00
ST	1.0	1700	645	0.38*
SR	1.0	1700	38	0.02-
EL	1.0	1700	77	0.05*
ET	0.0	0	0	0.00
ER	1.0	1700	110	0.05-
WL	0.0	0	0	0.00
WT	0.0	0	0	0.00
WR	0.0	0	0	0.00
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.56 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00
NT	0.0	0	0	0.00
NR	0.0	0	0	0.00
SL	2.0	3400	82	0.02
ST	0.0	0	0	0.00
SR	1.0	1700	352	0.18-*
EL	1.0	1700	51	0.03*
ET	2.0	3400	33	0.01
ER	0.0	0	0	0.00
WL	0.0	0	0	0.00
WT	2.0	3400	91	0.03*
WR	1.0	1700	32	0.02-
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.29 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00
NT	0.0	0	0	0.00
NR	0.0	0	0	0.00
SL	2.0	3400	87	0.03
ST	0.0	0	0	0.00
SR	1.0	1700	96	0.05-*
EL	1.0	1700	297	0.17*
ET	2.0	3400	100	0.03
ER	0.0	0	0	0.00
WL	0.0	0	0	0.00
WT	2.0	3400	55	0.02
WR	1.0	1700	113	0.06-*
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.33 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	158	0.09*
NT	0.0	0	0	0.00
NR >	1.0	1700	278	0.05-
SL	0.0	0	0	0.00
ST	0.0	0	0	0.00
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	2.0	3400	207	0.08*
ER	0.0	1700	50	0.03
WL	2.0	3400	339	0.10*
WT	2.0	3400	290	0.09
WR	0.0	0	0	0.00
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.32 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	1.0	1700	58	0.03
NT	0.0	0	0	0.00
NR >	1.0	1700	427	0.07-*
SL	0.0	0	0	0.00
ST	0.0	0	0	0.00
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	2.0	3400	287	0.14*
ER	0.0	1700	194	0.11
WL	2.0	3400	571	0.17*
WT	2.0	3400	216	0.06
WR	0.0	0	0	0.00
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.43 A

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00
NT	3.0	5100	1855	0.36*
NR	1.0	1700	22	0.01-
SL	2.0	3400	45	0.01*
ST	3.0	5100	312	0.06
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	2.0	3400	140	0.04
WT	0.0	0	0	0.00
WR	1.0	1700	234	0.12-*
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.54 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	0.0	0	0	0.00*
NT	3.0	5100	552	0.11
NR	1.0	1700	145	0.08-
SL	2.0	3400	126	0.04
ST	3.0	5100	1935	0.38*
SR	0.0	0	0	0.00
EL	0.0	0	0	0.00
ET	0.0	0	0	0.00
ER	0.0	0	0	0.00
WL	2.0	3400	73	0.02*
WT	0.0	0	0	0.00
WR	1.0	1700	41	0.02-
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.45 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	2.0	3400	345	0.10
NT	2.0	3400	1049	0.31*
NR >>	1.0	1700	14	0.01
SL	1.0	1700	38	0.02*
ST	2.0	3400	219	0.06
SR >>	1.0	1700	60	0.04
EL	1.0	1700	8	0.01
ET	0.0	0	0	0.00*
ER >>	1.0	1700	15	0.01
WL	1.0	1700	30	0.02*
WT	0.0	0	0	0.00
WR >>	1.0	1700	458	0.27
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.40 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	2.0	3400	44	0.01*
NT	2.0	3400	455	0.13
NR >>	1.0	1700	19	0.01
SL	1.0	1700	415	0.24
ST	2.0	3400	1547	0.46*
SR >>	1.0	1700	7	0.01
EL	1.0	1700	50	0.03*
ET	0.0	0	0	0.00
ER >>	1.0	1700	224	0.13
WL	1.0	1700	16	0.01
WT	0.0	0	0	0.00*
WR >>	1.0	1700	69	0.04
				=======
		Clearance Interval Percentage =		0.05
		Sum of Critical Movements =		0.55 A

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	2.0	3400	413	0.12
NT	4.0	6800	1105	0.16*
NR	1.0	1700	37	0.02-
SL	2.0	3400	29	0.01*
ST	3.0	5100	204	0.04
SR	1.0	1700	81	0.04-
EL	1.0	1700	62	0.04*
ET	3.0	5100	171	0.03
ER >>	1.0	1700	224	0.13
WL	1.0	1700	20	0.01
WT	3.0	5100	326	0.06
WR	1.0	1700	281	0.14-*
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.40 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	Volume	V/C Ratio
NL	2.0	3400	377	0.11*
NT	4.0	6800	376	0.06
NR	1.0	1700	59	0.03-
SL	2.0	3400	256	0.08
ST	3.0	5100	1240	0.24*
SR	1.0	1700	91	0.04-
EL	1.0	1700	90	0.05*
ET	3.0	5100	333	0.07
ER >>	1.0	1700	502	0.30
WL	1.0	1700	22	0.01
WT	3.0	5100	191	0.04*
WR	1.0	1700	85	0.04-
				=======
Clearance Interval Percentage =				0.05
Sum of Critical Movements =				0.49 A

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

APPENDIX D

ICU CALCULATIONS- EXISTING PLUS PROJECT

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	VOLUMES Project	VOLUMES Total	V/C Ratio
NL	0.0	0	0	0	0	0.00
NT	1.0	1700	1248	72	1320	0.78*
NR	1.0	1700	5	1	6	0.01-
SL	1.0	1700	9	0	9	0.01*
ST	1.0	1700	349	27	376	0.22
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	1.0	1700	12	1	13	0.01
WT	0.0	0	0	0	0	0.00
WR	1.0	1700	44	0	44	0.03-*
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.87 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	VOLUMES Project	VOLUMES Total	V/C Ratio
NL	0.0	0	0	0	0	0.00*
NT	1.0	1700	461	59	520	0.31
NR	1.0	1700	17	4	21	0.01-
SL	1.0	1700	34	0	34	0.02
ST	1.0	1700	865	74	939	0.55*
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	1.0	1700	7	4	11	0.01*
WT	0.0	0	0	0	0	0.00
WR	1.0	1700	15	0	15	0.01-
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.61 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio	
NL	1.0	1700	5	1	6	0.01	
NT	1.0	1700	1069	73	1142	0.67*	
NR	0.0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0.00*	
ST	1.0	1700	387	28	415	0.24	
SR	1.0	1700	28	0	28	0.02-	
EL	0.0	1700	156	0	156	0.09	
ET	1.0	1700	0	0	0	0.10*	
ER	0.0	1700	7	1	8	0.01	
WL	0.0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0.00	
						=======	
			Clearance Interval Percentage =			0.05	
			Sum of Critical Movements =			0.82	D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio	
NL	1.0	1700	20	4	24	0.01*	
NT	1.0	1700	452	63	515	0.30	
NR	0.0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0.00	
ST	1.0	1700	797	78	875	0.51*	
SR	1.0	1700	156	0	156	0.08-	
EL	0.0	1700	36	0	36	0.02	
ET	1.0	1700	0	0	0	0.03*	
ER	0.0	1700	4	4	8	0.01	
WL	0.0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0.00	
						=======	
			Clearance Interval Percentage =			0.05	
			Sum of Critical Movements =			0.60	A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	VOLUMES Project	VOLUMES Total	V/C Ratio
NL	0.0	0	0	0	0	0.00
NT	1.0	1700	813	74	887	0.52*
NR	1.0	1700	37	2	39	0.02-
SL	1.0	1700	112	0	112	0.07*
ST	1.0	1700	284	29	313	0.18
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	1.0	1700	52	4	56	0.03
WT	0.0	0	0	0	0	0.00
WR	1.0	1700	266	0	266	0.14-*
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.78 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	VOLUMES Project	VOLUMES Total	V/C Ratio
NL	0.0	0	0	0	0	0.00*
NT	1.0	1700	378	67	445	0.26
NR	1.0	1700	95	12	107	0.05-
SL	1.0	1700	223	0	223	0.13
ST	1.0	1700	581	82	663	0.39*
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	1.0	1700	40	12	52	0.03
WT	0.0	0	0	0	0	0.00
WR	1.0	1700	94	0	94	0.05-*
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.49 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	1.0	1700	25	19	44	0.03
NT	1.0	1700	768	76	844	0.50*
NR	0.0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0.00*
ST	1.0	1700	337	33	370	0.22
SR	1.0	1700	10	0	10	0.01-
EL	0.0	1700	82	0	82	0.05
ET	1.0	1700	0	0	0	0.13*
ER	0.0	1700	123	9	132	0.08
WL	0.0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0.00
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.68 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	1.0	1700	115	21	136	0.08*
NT	1.0	1700	441	79	520	0.31
NR	0.0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0.00
ST	1.0	1700	597	94	691	0.41*
SR	1.0	1700	21	0	21	0.01-
EL	0.0	1700	28	0	28	0.02
ET	1.0	1700	0	0	0	0.08*
ER	0.0	1700	78	24	102	0.06
WL	0.0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0.00
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.62 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Project Entrance (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio	
NL	0.0	0	0	0	0	0.00	
NT	1.0	1700	795	6	801	0.47*	
NR	1.0	1700	0	84	84	0.04-	
SL	1.0	1700	0	30	30	0.02*	
ST	1.0	1700	460	12	472	0.28	
SR	0.0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0.00	
WL	1.0	1700	0	248	248	0.15*	
WT	0.0	0	0	0	0	0.00	
WR	1.0	1700	0	89	89	0.04-	
						=======	
				Clearance Interval Percentage =		0.05	
				Sum of Critical Movements =		0.69	B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio	
NL	0.0	0	0	0	0	0.00*	
NT	1.0	1700	556	36	592	0.35	
NR	1.0	1700	0	228	228	0.11-	
SL	1.0	1700	0	82	82	0.05	
ST	1.0	1700	675	36	711	0.42*	
SR	0.0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0.00	
WL	1.0	1700	0	178	178	0.10*	
WT	0.0	0	0	0	0	0.00	
WR	1.0	1700	0	64	64	0.03-	
						=======	
				Clearance Interval Percentage =		0.05	
				Sum of Critical Movements =		0.57	A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	0.0	0	0	0	0	0.00
NT	1.0	1700	765	84	849	0.50*
NR	1.0	1700	13	6	19	0.01-
SL	1.0	1700	3	12	15	0.01*
ST	1.0	1700	457	248	705	0.41
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	0.0	1700	91	6	97	0.06
WT	1.0	1700	0	0	0	0.08*
WR	0.0	1700	29	6	35	0.02
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.64 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	0.0	0	0	0	0	0.00*
NT	1.0	1700	545	228	773	0.45
NR	1.0	1700	66	24	90	0.04-
SL	1.0	1700	20	36	56	0.03
ST	1.0	1700	646	178	824	0.48*
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	0.0	1700	32	24	56	0.03
WT	1.0	1700	0	0	0	0.06*
WR	0.0	1700	8	36	44	0.03
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.59 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	1.0	1700	43	0	43	0.03
NT	1.0	1700	740	51	791	0.47*
NR	0.0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0.00*
ST	1.0	1700	409	145	554	0.33
SR	1.0	1700	79	109	188	0.09-
EL	1.0	1700	32	39	71	0.04
ET	0.0	0	0	0	0	0.00
ER	1.0	1700	103	0	103	0.05-*
WL	0.0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0.00
					Clearance Interval Percentage =	0.05
					Sum of Critical Movements =	0.57 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	1.0	1700	130	0	130	0.08*
NT	1.0	1700	552	142	694	0.41
NR	0.0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0.00
ST	1.0	1700	645	114	759	0.45*
SR	1.0	1700	38	88	126	0.06-
EL	1.0	1700	77	110	187	0.11*
ET	0.0	0	0	0	0	0.00
ER	1.0	1700	110	0	110	0.05-
WL	0.0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0.00
					Clearance Interval Percentage =	0.05
					Sum of Critical Movements =	0.69 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	0.0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0.00
SL	2.0	3400	82	1	83	0.02
ST	0.0	0	0	0	0	0.00
SR	1.0	1700	352	0	352	0.18-*
EL	1.0	1700	51	0	51	0.03*
ET	2.0	3400	33	38	71	0.02
ER	0.0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0.00
WT	2.0	3400	91	108	199	0.06*
WR	1.0	1700	32	1	33	0.02-
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.32 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	0.0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0.00
SL	2.0	3400	87	4	91	0.03
ST	0.0	0	0	0	0	0.00
SR	1.0	1700	96	0	96	0.05-*
EL	1.0	1700	297	0	297	0.17*
ET	2.0	3400	100	106	206	0.06
ER	0.0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0.00
WT	2.0	3400	55	84	139	0.04
WR	1.0	1700	113	4	117	0.06-*
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.33 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	1.0	1700	158	0	158	0.09*
NT	0.0	0	0	0	0	0.00
NR >	1.0	1700	278	19	297	0.04-
SL	0.0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	2.0	3400	207	31	238	0.08*
ER	0.0	1700	50	0	50	0.03
WL	2.0	3400	339	54	393	0.12*
WT	2.0	3400	290	90	380	0.11
WR	0.0	0	0	0	0	0.00
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.34 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	1.0	1700	58	0	58	0.03
NT	0.0	0	0	0	0	0.00
NR >	1.0	1700	427	53	480	0.09-*
SL	0.0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	2.0	3400	287	85	372	0.17*
ER	0.0	1700	194	0	194	0.11
WL	2.0	3400	571	42	613	0.18*
WT	2.0	3400	216	68	284	0.08
WR	0.0	0	0	0	0	0.00
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.49 A

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	0.0	0	0	0	0	0.00
NT	3.0	5100	1855	0	1855	0.36*
NR	1.0	1700	22	18	40	0.02-
SL	2.0	3400	45	13	58	0.02*
ST	3.0	5100	312	0	312	0.06
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	2.0	3400	140	53	193	0.06
WT	0.0	0	0	0	0	0.00
WR	1.0	1700	234	36	270	0.14-*
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.57 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	0.0	0	0	0	0	0.00*
NT	3.0	5100	552	0	552	0.11
NR	1.0	1700	145	49	194	0.09-
SL	2.0	3400	126	37	163	0.05
ST	3.0	5100	1935	0	1935	0.38*
SR	0.0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0.00
WL	2.0	3400	73	38	111	0.03*
WT	0.0	0	0	0	0	0.00
WR	1.0	1700	41	29	70	0.03-
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.46 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio	
NL	2.0	3400	345	0	345	0.10	
NT	2.0	3400	1049	0	1049	0.31*	
NR >>	1.0	1700	14	18	32	0.02	
SL	1.0	1700	38	0	38	0.02*	
ST	2.0	3400	219	0	219	0.06	
SR >>	1.0	1700	60	53	113	0.07	
EL	1.0	1700	8	18	26	0.02*	
ET	0.0	0	0	0	0	0.00	
ER >>	1.0	1700	15	0	15	0.01	
WL	1.0	1700	30	6	36	0.02	
WT	0.0	0	0	0	0	0.00*	
WR >>	1.0	1700	458	0	458	0.27	
						=======	
					Clearance Interval Percentage =	0.05	
					Sum of Critical Movements =	0.40	A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio	
NL	2.0	3400	44	0	44	0.01*	
NT	2.0	3400	455	0	455	0.13	
NR >>	1.0	1700	19	13	32	0.02	
SL	1.0	1700	415	0	415	0.24	
ST	2.0	3400	1547	0	1547	0.46*	
SR >>	1.0	1700	7	38	45	0.03	
EL	1.0	1700	50	49	99	0.06*	
ET	0.0	0	0	0	0	0.00	
ER >>	1.0	1700	224	0	224	0.13	
WL	1.0	1700	16	16	32	0.02	
WT	0.0	0	0	0	0	0.00*	
WR >>	1.0	1700	69	0	69	0.04	
						=======	
					Clearance Interval Percentage =	0.05	
					Sum of Critical Movements =	0.58	A

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Background Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	2.0	3400	413	0	413	0.12
NT	4.0	6800	1105	0	1105	0.16*
NR	1.0	1700	37	6	43	0.03-
SL	2.0	3400	29	6	35	0.01*
ST	3.0	5100	204	0	204	0.04
SR	1.0	1700	81	0	81	0.04-
EL	1.0	1700	62	0	62	0.04*
ET	3.0	5100	171	19	190	0.04
ER >>	1.0	1700	224	0	224	0.13
WL	1.0	1700	20	18	38	0.02
WT	3.0	5100	326	54	380	0.07
WR	1.0	1700	281	18	299	0.15-*
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.41 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Total	V/C Ratio
NL	2.0	3400	377	0	377	0.11*
NT	4.0	6800	376	0	376	0.06
NR	1.0	1700	59	16	75	0.03-
SL	2.0	3400	256	16	272	0.08
ST	3.0	5100	1240	0	1240	0.24*
SR	1.0	1700	91	0	91	0.04-
EL	1.0	1700	90	0	90	0.05*
ET	3.0	5100	333	53	386	0.08
ER >>	1.0	1700	502	0	502	0.30
WL	1.0	1700	22	13	35	0.02
WT	3.0	5100	191	42	233	0.05*
WR	1.0	1700	85	13	98	0.05-
						=======
				Clearance Interval Percentage =		0.05
				Sum of Critical Movements =		0.50 A

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

APPENDIX E

ICU CALCULATIONS - YEAR 2000 WITHOUT PROJECT

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

			V O L U M E S				
Move	Lanes	Capacity	Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1323	0	-32	1291	0.76*
NR	1.0	1700	6	0	4	10	0.01-
SL	1.0	1700	10	0	0	10	0.01*
ST	1.0	1700	484	0	-8	476	0.28
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	13	0	6	19	0.01
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	93	0	0	93	0.04-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.86 D

PM Intersection Capacity Analysis

			V O L U M E S				
Move	Lanes	Capacity	Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	507	0	-12	495	0.29
NR	1.0	1700	19	0	14	33	0.02-
SL	1.0	1700	87	0	0	87	0.05
ST	1.0	1700	1102	0	-32	1070	0.63*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	8	0	14	22	0.01*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	17	0	0	17	0.01-
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.69 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	9	0	7	16	0.01	
NT	1.0	1700	1174	0	-28	1146	0.67*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	498	0	-2	496	0.29	
SR	1.0	1700	43	0	0	43	0.03-	
EL	0.0	1700	240	0	0	240	0.14	
ET	1.0	1700	0	0	0	0	0.15*	
ER	0.0	1700	12	0	9	21	0.01	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.87	D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	35	0	21	56	0.03*	
NT	1.0	1700	581	0	2	583	0.34	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	1025	0	-18	1007	0.59*	
SR	1.0	1700	240	0	0	240	0.12-	
EL	0.0	1700	55	0	0	55	0.03	
ET	1.0	1700	0	0	0	0	0.05*	
ER	0.0	1700	7	0	22	29	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.72	C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	866	0	-35	831	0.49*
NR	1.0	1700	41	0	30	71	0.03-
SL	1.0	1700	140	0	19	159	0.09*
ST	1.0	1700	355	0	-12	343	0.20
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	57	0	19	76	0.04
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	333	0	14	347	0.17-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.80 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	473	0	-22	451	0.27*
NR	1.0	1700	105	0	67	172	0.09-
SL	1.0	1700	279	0	46	325	0.19*
ST	1.0	1700	726	0	-42	684	0.40
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	44	0	66	110	0.06
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	118	0	45	163	0.09-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.60 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	33	0	-9	24	0.01	
NT	1.0	1700	845	0	-23	822	0.48*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	371	0	-6	365	0.21	
SR	1.0	1700	13	0	13	26	0.02-	
EL	0.0	1700	103	0	18	121	0.07	
ET	1.0	1700	0	0	0	0	0.17*	
ER	0.0	1700	163	0	-3	160	0.09	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.70	B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	152	0	-5	147	0.09*	
NT	1.0	1700	485	0	2	487	0.29	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	657	0	-18	639	0.38*	
SR	1.0	1700	26	0	42	68	0.03-	
EL	0.0	1700	35	0	43	78	0.05	
ET	1.0	1700	0	0	0	0	0.10*	
ER	0.0	1700	103	0	-10	93	0.05	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.62	B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	879	0	-39	840	0.49*
NR	1.0	1700	21	0	0	21	0.01-
SL	1.0	1700	5	0	4	9	0.01*
ST	1.0	1700	555	0	-129	426	0.25
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	150	0	0	150	0.09
WT	1.0	1700	0	0	0	0	0:12*
WR	0.0	1700	46	0	6	52	0.03
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.67 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	662	0	-145	517	0.30
NR	1.0	1700	108	0	0	108	0.05-
SL	1.0	1700	31	0	14	45	0.03
ST	1.0	1700	784	0	-70	714	0.42*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	53	0	0	53	0.03
WT	1.0	1700	0	0	0	0	0.05*
WR	0.0	1700	13	0	14	27	0.02
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.52 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	81	0	0	81	0.05	
NT	1.0	1700	788	0	-21	767	0.45*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	519	0	-70	449	0.26	
SR	1.0	1700	150	0	-59	91	0.04-	
EL	1.0	1700	111	0	-18	93	0.05	
ET	0.0	0	0	0	0	0	0.00	
ER	1.0	1700	243	0	0	243	0.12-*	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.62	B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	244	0	0	244	0.14*	
NT	1.0	1700	700	0	-79	621	0.37	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	818	0	-39	779	0.46*	
SR	1.0	1700	72	0	-31	41	0.02-	
EL	1.0	1700	146	0	-66	80	0.05	
ET	0.0	0	0	0	0	0	0.00	
ER	1.0	1700	206	0	0	206	0.10-*	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.75	C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	164	0	0	164	0.05
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	798	0	0	798	0.40-*
EL	1.0	1700	130	0	0	130	0.08*
ET	2.0	3400	201	0	-20	181	0.05
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	278	0	-61	217	0.06*
WR	1.0	1700	64	0	0	64	0.03-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.59 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	124	0	0	124	0.04
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	245	0	0	245	0.12-*
EL	1.0	1700	707	0	0	707	0.42*
ET	2.0	3400	305	0	-72	233	0.07
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	168	0	-37	131	0.04
WR	1.0	1700	226	0	0	226	0.11-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.70 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	254	0	0	254	0.15*
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	329	0	-8	321	0.00-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	273	0	-14	259	0.10*
ER	0.0	1700	80	0	0	80	0.05
WL	2.0	3400	673	0	-26	647	0.19*
WT	2.0	3400	532	0	-44	488	0.14
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.49 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	93	0	0	93	0.05
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	758	0	-30	728	0.21-*
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	628	0	-50	578	0.29*
ER	0.0	1700	412	0	0	412	0.24
WL	2.0	3400	630	0	-15	615	0.18*
WT	2.0	3400	335	0	-25	310	0.09
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.73 C

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	120	0	0	120	0.04
NT	3.0	5100	2314	0	0	2314	0.45*
NR	1.0	1700	409	0	-12	397	0.20-
SL	2.0	3400	321	0	-9	312	0.09*
ST	3.0	5100	507	0	0	507	0.10
SR	1.0	1700	15	0	0	15	0.01-
EL	1.0	1700	5	0	0	5	0.01*
ET	1.5	2550	5	0	0	5	0.01
ER	1.5	2550	20	0	0	20	0.01-
WL	2.0	3400	478	0	-35	443	0.13
WT	1.0	1700	15	0	0	15	0.01
WR	1.0	1700	629	0	-26	603	0.30-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.90 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	15	0	0	15	0.01*
NT	3.0	5100	986	0	0	986	0.19
NR	1.0	1700	492	0	-42	450	0.22-
SL	2.0	3400	488	0	-31	457	0.13
ST	3.0	5100	2457	0	0	2457	0.48*
SR	1.0	1700	5	0	0	5	0.01-
EL	1.0	1700	10	0	0	10	0.01*
ET	1.5	2550	15	0	0	15	0.01
ER	1.5	2550	115	0	0	115	0.04-
WL	2.0	3400	547	0	-22	525	0.15
WT	1.0	1700	5	0	0	5	0.01
WR	1.0	1700	410	0	-16	394	0.20-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.75 C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	776	0	0	776	0.23	
NT	2.0	3400	1955	0	0	1955	0.58*	
NR >>	1.0	1700	32	0	-9	23	0.01	
SL	1.0	1700	72	0	0	72	0.04*	
ST	2.0	3400	721	0	0	721	0.21	
SR >>	1.0	1700	114	0	-35	79	0.05	
EL	1.0	1700	115	0	-12	103	0.06*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	34	0	0	34	0.02	
WL	1.0	1700	68	0	-3	65	0.04	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	620	0	0	620	0.36	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.73	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	99	0	0	99	0.03	
NT	2.0	3400	1228	0	0	1228	0.36*	
NR >>	1.0	1700	43	0	-5	38	0.02	
SL	1.0	1700	738	0	0	738	0.43*	
ST	2.0	3400	2326	0	0	2326	0.68	
SR >>	1.0	1700	63	0	-22	41	0.02	
EL	1.0	1700	95	0	-42	53	0.03*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	504	0	0	504	0.30	
WL	1.0	1700	36	0	-10	26	0.02	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	131	0	0	131	0.08	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.87	D

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	385	0	0	385	0.11
NT	4.0	6800	1883	0	0	1883	0.28*
NR	1.0	1700	49	0	-3	46	0.03-
SL	2.0	3400	106	0	-3	103	0.03*
ST	3.0	5100	584	0	0	584	0.11
SR	1.0	1700	165	0	0	165	0.09-
EL	1.0	1700	326	0	0	326	0.19*
ET	3.0	5100	252	0	-8	244	0.05
ER >>	1.0	1700	317	0	0	317	0.19
WL	1.0	1700	27	0	-9	18	0.01
WT	3.0	5100	430	0	-26	404	0.08
WR	1.0	1700	496	0	-9	487	0.25-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.80 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	324	0	0	324	0.10*
NT	4.0	6800	959	0	0	959	0.14
NR	1.0	1700	78	0	-10	68	0.03-
SL	2.0	3400	597	0	-10	587	0.17
ST	3.0	5100	2037	0	0	2037	0.40*
SR	1.0	1700	285	0	0	285	0.14-
EL	1.0	1700	233	0	0	233	0.14*
ET	3.0	5100	591	0	-30	561	0.11
ER >>	1.0	1700	611	0	0	611	0.36
WL	1.0	1700	29	0	-5	24	0.01
WT	3.0	5100	231	0	-15	216	0.04
WR	1.0	1700	215	0	-5	210	0.10-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.79 C

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

APPENDIX F

ICU CALCULATIONS - YEAR 2000 WITH PROJECT

* Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)
2 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	1323	507	1248	461
NR	6	19	5	17
SL	10	87	9	34
ST	484	1102	349	865
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	13	8	12	7
WT	0	0	0	0
WR	93	17	44	15
* Totals	1929	1740		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	494	1189			
* North Leg OUT	1416	524			
* North Leg TOTAL	1910	1713	13	11	15000
* South Leg IN	1329	526			
* South Leg OUT	497	1110			
* South Leg TOTAL	1826	1636	12	11	15000
* East Leg IN	106	25			
* East Leg OUT	16	106			
* East Leg TOTAL	122	131	12	13	1000
* West Leg IN	0	0			
* West Leg OUT	0	0			
* West Leg TOTAL	0	0	0	0	0
* TOTALS	3858	3480	12	11	31000

* Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)
* Intersection # 3

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	9	35	5	20
NT	1224	581	1069	452
NR	0	0	0	0
SL	0	0	0	0
ST	498	1025	387	797
SR	43	240	28	156
EL	240	55	156	36
ET	0	0	0	0
ER	12	7	7	4
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
* Totals	2026	1943		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	541	1265			
* North Leg OUT	1464	636			
* North Leg TOTAL	2005	1901	13	13	15000
* South Leg IN	1233	616			
* South Leg OUT	510	1032			
* South Leg TOTAL	1743	1648	12	11	15000
* East Leg IN	0	0			
* East Leg OUT	0	0			
* East Leg TOTAL	0	0	0	0	0
* West Leg IN	252	62			
* West Leg OUT	52	275			
* West Leg TOTAL	304	337	8	8	4000
* TOTALS	4052	3886	12	11	34000

```
 * Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)
          4      * Intersection #
* Future Peak Hour Volumes   Existing Peak Hour Volumes
* Move     AM          PM          AM          PM
* ---- --------    --------    --------    --------
   NL          0           0           0           0
   NT        866         473         813         378
   NR         41         105          37          95

   SL        140         279         112         223
   ST        355         726         284         581
   SR          0           0           0           0

   EL          0           0           0           0
   ET          0           0           0           0
   ER          0           0           0           0

   WL         57          44          52          40
   WT          0           0           0           0
   WR        333         118         266          94

* Totals  1792        1745

* Intersection Peak Hour Leg Volumes    Percent of ADT        ADT
*                      --AM--   --PM--      --AM--   --PM--   ---------
* North Leg IN          495      1005
* North Leg OUT        1199       591
*                      ------   ------
* North Leg TOTAL      1694      1596          11       11       15000

* South Leg IN          907       578
* South Leg OUT         412       770
*                      ------   ------
* South Leg TOTAL      1319      1348           9       10       14000

* East  Leg IN          390       162
* East  Leg OUT         181       384
*                      ------   ------
* East  Leg TOTAL       571       546          11       11        5000

* West  Leg IN            0         0
* West  Leg OUT           0         0
*                      ------   ------
* West  Leg TOTAL         0         0           0        0           0
*                      ======   ======
* TOTALS               3584      3490          11       10       34000
*
```

* Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)
5 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	33	152	25	115
NT	845	485	768	441
NR	0	0	0	0
SL	0	0	0	0
ST	371	657	337	597
SR	13	26	10	21
EL	103	35	82	28
ET	0	0	0	0
ER	163	103	123	78
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
* Totals	1528	1458		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	384	683			
* North Leg OUT	948	520			
* North Leg TOTAL	1332	1203	10	9	14000
* South Leg IN	878	637			
* South Leg OUT	534	760			
* South Leg TOTAL	1412	1397	9	9	16000
* East Leg IN	0	0			
* East Leg OUT	0	0			
* East Leg TOTAL	0	0	0	0	0
* West Leg IN	266	138			
* West Leg OUT	46	178			
* West Leg TOTAL	312	316	10	11	3000
* TOTALS	3056	2916	9	9	33000

* Intersection: El Toro Rd. (NS) / Project Entrance (EW)
6 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	817	535	0	0
NR	71	191	0	0
SL	24	64	0	0
ST	439	680	0	0
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	191	120	0	0
WT	0	0	0	0
WR	64	40	0	0
* Totals	1606	1630		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	463	744			
* North Leg OUT	881	575			
* North Leg TOTAL	1344	1319	8	8	16000
* South Leg IN	888	726			
* South Leg OUT	630	800			
* South Leg TOTAL	1518	1526	9	10	16000
* East Leg IN	255	160			
* East Leg OUT	95	255			
* East Leg TOTAL	350	415	12	14	3000
* West Leg IN	0	0			
* West Leg OUT	0	0			
* West Leg TOTAL	0	0	0	0	0
* TOTALS	3212	3260	9	9	35000

* Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)
7 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	879	662	765	545
NR	21	108	13	66
SL	5	31	3	20
ST	555	784	457	646
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	150	53	91	32
WT	0	0	0	0
WR	46	13	29	8
* Totals	1656	1651		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	560	815			
* North Leg OUT	925	675			
* North Leg TOTAL	1485	1490	9	9	16000
* South Leg IN	900	770			
* South Leg OUT	705	837			
* South Leg TOTAL	1605	1607	9	9	18000
* East Leg IN	196	66			
* East Leg OUT	26	139			
* East Leg TOTAL	222	205	11	10	2000
* West Leg IN	0	0			
* West Leg OUT	0	0			
* West Leg TOTAL	0	0	0	0	0
* TOTALS	3312	3302	9	9	36000

* Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)
8 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	81	244	43	130
NT	788	700	740	552
NR	0	0	0	0
SL	0	0	0	0
ST	519	818	409	645
SR	150	72	79	38
EL	111	146	32	77
ET	0	0	0	0
ER	243	206	103	110
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
* Totals	1892	2186		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	669	890			
* North Leg OUT	899	846			
* North Leg TOTAL	1568	1736	9	10	18000
* South Leg IN	869	944			
* South Leg OUT	762	1024			
* South Leg TOTAL	1631	1968	8	10	20000
* East Leg IN	0	0			
* East Leg OUT	0	0			
* East Leg TOTAL	0	0	0	0	0
* West Leg IN	354	352			
* West Leg OUT	231	316			
* West Leg TOTAL	585	668	6	7	10000
* TOTALS	3784	4372	8	9	48000

* Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)
18 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	0	0	0	0
NR	0	0	0	0
SL	164	124	82	87
ST	0	0	0	0
SR	798	245	352	96
EL	130	707	51	297
ET	201	305	33	100
ER	0	0	0	0
WL	0	0	0	0
WT	278	168	91	55
WR	64	226	32	113
* Totals	1635	1775		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	962	369			
* North Leg OUT	194	933			
* North Leg TOTAL	1156	1302	13	14	9000
* South Leg IN	0	0			
* South Leg OUT	0	0			
* South Leg TOTAL	0	0	0	0	0
* East Leg IN	342	394			
* East Leg OUT	365	429			
* East Leg TOTAL	707	823	7	8	10000
* West Leg IN	331	1012			
* West Leg OUT	1076	413			
* West Leg TOTAL	1407	1425	8	8	18000
* TOTALS	3270	3550	9	10	37000

```
 * Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)
          10      * Intersection #
* Future Peak Hour Volumes   Existing Peak Hour Volumes
* Move    AM         PM          AM         PM
* ---- --------   --------    --------   --------
   NL      254         93         158         58
   NT        0          0           0          0
   NR      329        758         278        427

   SL        0          0           0          0
   ST        0          0           0          0
   SR        0          0           0          0

   EL        0          0           0          0
   ET      273        628         207        287
   ER       80        412          50        194

   WL      673        630         339        571
   WT      532        335         290        216
   WR        0          0           0          0

* Totals  2141       2856

* Intersection Peak Hour Leg Volumes   Percent of ADT       ADT
*                    --AM--   --PM--      --AM--   --PM--  ---------
* North Leg IN          0        0
* North Leg OUT         0        0
*                    ------   ------
* North Leg TOTAL       0        0          0        0          0

* South Leg IN        583      851
* South Leg OUT       753     1042
*                    ------   ------
* South Leg TOTAL    1336     1893          6        9      22000

* East  Leg IN       1205      965
* East  Leg OUT       602     1386
*                    ------   ------
* East  Leg TOTAL    1807     2351          9       12      20000

* West  Leg IN        353     1040
* West  Leg OUT       786      428
*                    ------   ------
* West  Leg TOTAL    1139     1468          6        8      18000
*                    ======   ======
* TOTALS             4282     5712          7       10      60000
```

* Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)
20 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	120	15	0	0
NT	2314	986	1855	552
NR	409	492	22	145
SL	321	488	45	126
ST	507	2457	312	1935
SR	15	5	0	0
EL	5	10	0	0
ET	5	15	0	0
ER	20	115	0	0
WL	478	547	140	73
WT	15	5	0	0
WR	629	410	234	41
* Totals	4838	5545		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	843	2950			
* North Leg OUT	2948	1406			
* North Leg TOTAL	3791	4356	10	11	39000
* South Leg IN	2843	1493			
* South Leg OUT	1005	3119			
* South Leg TOTAL	3848	4612	9	10	45000
* East Leg IN	1122	962			
* East Leg OUT	735	995			
* East Leg TOTAL	1857	1957	10	11	18000
* West Leg IN	30	140			
* West Leg OUT	150	25			
* West Leg TOTAL	180	165	0	0	0
* TOTALS	9676	11090	9	11	102000

* Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)
21 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	776	99	345	44
NT	1955	1228	1049	455
NR	32	43	14	19
SL	72	738	38	415
ST	721	2326	219	1547
SR	114	63	60	7
EL	115	95	8	50
ET	0	0	0	0
ER	34	504	15	224
WL	68	36	30	16
WT	0	0	0	0
WR	620	131	458	69
* Totals	4507	5263		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	907	3127			
* North Leg OUT	2690	1454			
* North Leg TOTAL	3597	4581	8	10	45000
* South Leg IN	2763	1370			
* South Leg OUT	823	2866			
* South Leg TOTAL	3586	4236	7	8	50000
* East Leg IN	688	167			
* East Leg OUT	104	781			
* East Leg TOTAL	792	948	8	9	10000
* West Leg IN	149	599			
* West Leg OUT	890	162			
* West Leg TOTAL	1039	761	13	10	8000
* TOTALS	9014	10526	8	9	113000

* Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)
11 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	385	324	413	377
NT	1883	959	1105	376
NR	49	78	37	59
SL	106	597	29	256
ST	584	2037	204	1240
SR	165	285	81	91
EL	326	233	62	90
ET	252	591	171	333
ER	317	611	224	502
WL	27	29	20	22
WT	430	231	326	191
WR	496	215	281	85
* Totals	5020	6190		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	855	2919			
* North Leg OUT	2705	1407			
* North Leg TOTAL	3560	4326	7	9	50000
* South Leg IN	2317	1361			
* South Leg OUT	928	2677			
* South Leg TOTAL	3245	4038	10	12	33000
* East Leg IN	953	475			
* East Leg OUT	407	1266			
* East Leg TOTAL	1360	1741	8	10	18000
* West Leg IN	895	1435			
* West Leg OUT	980	840			
* West Leg TOTAL	1875	2275	8	9	25000
* TOTALS	10040	12380	8	10	126000

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1323	72	-32	1363	0.80*
NR	1.0	1700	6	1	4	11	0.01-
SL	1.0	1700	10	0	0	10	0.01*
ST	1.0	1700	484	27	-8	503	0.30
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	13	1	6	20	0.01
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	93	0	0	93	0.04-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.90 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	507	59	-12	554	0.33
NR	1.0	1700	19	4	14	37	0.02-
SL	1.0	1700	87	0	0	87	0.05
ST	1.0	1700	1102	74	-32	1144	0.67*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	8	4	14	26	0.02*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	17	0	0	17	0.01-
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.74 C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	9	1	7	17	0.01	
NT	1.0	1700	1174	73	-28	1219	0.72*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	498	28	-2	524	0.31	
SR	1.0	1700	43	0	0	43	0.03-	
EL	0.0	1700	240	0	0	240	0.14	
ET	1.0	1700	0	0	0	0	0.15*	
ER	0.0	1700	12	1	9	22	0.01	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.92	E

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	35	4	21	60	0.04*	
NT	1.0	1700	581	63	2	646	0.38	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	1025	78	-18	1085	0.64*	
SR	1.0	1700	240	0	0	240	0.12-	
EL	0.0	1700	55	0	0	55	0.03	
ET	1.0	1700	0	0	0	0	0.05*	
ER	0.0	1700	7	4	22	33	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.78	C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	866	74	-35	905	0.53*
NR	1.0	1700	41	2	30	73	0.03-
SL	1.0	1700	140	0	19	159	0.09*
ST	1.0	1700	355	29	-12	372	0.22
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	57	4	19	80	0.05
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	333	0	14	347	0.17-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.84 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	473	67	-22	518	0.30*
NR	1.0	1700	105	12	67	184	0.09-
SL	1.0	1700	279	0	46	325	0.19*
ST	1.0	1700	726	82	-42	766	0.45
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	44	12	66	122	0.07
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	118	0	45	163	0.09-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.63 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	33	19	-9	43	0.03	
NT	1.0	1700	845	76	-23	898	0.53*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	371	33	-6	398	0.23	
SR	1.0	1700	13	0	13	26	0.02-	
EL	0.0	1700	103	0	18	121	0.07	
ET	1.0	1700	0	0	0	0	0.17*	
ER	0.0	1700	163	9	-3	169	0.10	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.75	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	152	21	-5	168	0.10*	
NT	1.0	1700	485	79	2	566	0.33	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	657	94	-18	733	0.43*	
SR	1.0	1700	26	0	42	68	0.03-	
EL	0.0	1700	35	0	43	78	0.05	
ET	1.0	1700	0	0	0	0	0.11*	
ER	0.0	1700	103	24	-10	117	0.07	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.69	B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Project Entrance (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	817	6	12	835	0.49*
NR	1.0	1700	71	84	-45	110	0.05-
SL	1.0	1700	24	30	-15	39	0.02*
ST	1.0	1700	439	12	6	457	0.27
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	191	248	-131	308	0.18*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	64	89	-44	109	0.05-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.74 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	535	36	24	595	0.35
NR	1.0	1700	191	228	-155	264	0.14-
SL	1.0	1700	64	82	-52	94	0.06
ST	1.0	1700	680	36	24	740	0.44*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	120	178	-80	218	0.13*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	40	64	-27	77	0.04-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.62 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	879	84	-39	924	0.54*
NR	1.0	1700	21	6	0	27	0.02-
SL	1.0	1700	5	12	4	21	0.01*
ST	1.0	1700	555	248	-129	674	0.40
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	150	6	0	156	0.09
WT	1.0	1700	0	0	0	0	0.13*
WR	0.0	1700	46	6	6	58	0.03
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.73 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	662	228	-145	745	0.44
NR	1.0	1700	108	24	0	132	0.07-
SL	1.0	1700	31	36	14	81	0.05
ST	1.0	1700	784	178	-70	892	0.52*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	53	24	0	77	0.05
WT	1.0	1700	0	0	0	0	0.08*
WR	0.0	1700	13	36	14	63	0.04
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.65 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	81	0	0	81	0.05
NT	1.0	1700	788	51	-21	818	0.48*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	1.0	1700	519	145	-70	594	0.35
SR	1.0	1700	150	109	-59	200	0.10-
EL	1.0	1700	111	39	-18	132	0.08
ET	0.0	0	0	0	0	0	0.00
ER	1.0	1700	243	0	0	243	0.12-*
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.65 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	244	0	0	244	0.14*
NT	1.0	1700	700	142	-79	763	0.45
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	1.0	1700	818	114	-39	893	0.53*
SR	1.0	1700	72	88	-31	129	0.07-
EL	1.0	1700	146	110	-66	190	0.11*
ET	0.0	0	0	0	0	0	0.00
ER	1.0	1700	206	0	0	206	0.10-
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.83 D

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	164	1	0	165	0.05
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	798	0	0	798	0.40-*
EL	1.0	1700	130	0	0	130	0.08*
ET	2.0	3400	201	38	-20	219	0.06
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	278	108	-61	325	0.10*
WR	1.0	1700	64	1	0	65	0.03-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.63 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	124	4	0	128	0.04
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	245	0	0	245	0.12-*
EL	1.0	1700	707	0	0	707	0.42*
ET	2.0	3400	305	106	-72	339	0.10
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	168	84	-37	215	0.06
WR	1.0	1700	226	4	0	230	0.12-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.71 C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	254	0	0	254	0.15*
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	329	19	-8	340	0.00-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	273	31	-14	290	0.11*
ER	0.0	1700	80	0	0	80	0.05
WL	2.0	3400	673	54	-26	701	0.21*
WT	2.0	3400	532	90	-44	578	0.17
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.52 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	93	0	0	93	0.05
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	758	53	-30	781	0.23-*
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	628	85	-50	663	0.32*
ER	0.0	1700	412	0	0	412	0.24
WL	2.0	3400	630	42	-15	657	0.19*
WT	2.0	3400	335	68	-25	378	0.11
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.79 C

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	120	0	0	120	0.04	
NT	3.0	5100	2314	0	0	2314	0.45*	
NR	1.0	1700	409	18	-12	415	0.20-	
SL	2.0	3400	321	13	-9	325	0.10*	
ST	3.0	5100	507	0	0	507	0.10	
SR	1.0	1700	15	0	0	15	0.01-	
EL	1.0	1700	5	0	0	5	0.01*	
ET	1.5	2550	5	0	0	5	0.01	
ER	1.5	2550	20	0	0	20	0.01-	
WL	2.0	3400	478	53	-35	496	0.15	
WT	1.0	1700	15	0	0	15	0.01	
WR	1.0	1700	629	36	-26	639	0.32-*	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.93	E

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	15	0	0	15	0.01*	
NT	3.0	5100	986	0	0	986	0.19	
NR	1.0	1700	492	49	-42	499	0.25-	
SL	2.0	3400	488	37	-31	494	0.15	
ST	3.0	5100	2457	0	0	2457	0.48*	
SR	1.0	1700	5	0	0	5	0.01-	
EL	1.0	1700	10	0	0	10	0.01*	
ET	1.5	2550	15	0	0	15	0.01	
ER	1.5	2550	115	0	0	115	0.04-	
WL	2.0	3400	547	38	-22	563	0.17	
WT	1.0	1700	5	0	0	5	0.01	
WR	1.0	1700	410	29	-16	423	0.21-*	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.76	C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	776	0	0	776	0.23	
NT	2.0	3400	1955	0	0	1955	0.58*	
NR >>	1.0	1700	32	18	-9	41	0.02	
SL	1.0	1700	72	0	0	72	0.04*	
ST	2.0	3400	721	0	0	721	0.21	
SR >>	1.0	1700	114	53	-35	132	0.08	
EL	1.0	1700	115	18	-12	121	0.07*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	34	0	0	34	0.02	
WL	1.0	1700	68	6	-3	71	0.04	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	620	0	0	620	0.36	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.74	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	99	0	0	99	0.03	
NT	2.0	3400	1228	0	0	1228	0.36*	
NR >>	1.0	1700	43	13	-5	51	0.03	
SL	1.0	1700	738	0	0	738	0.43*	
ST	2.0	3400	2326	0	0	2326	0.68	
SR >>	1.0	1700	63	38	-22	79	0.05	
EL	1.0	1700	95	49	-42	102	0.06*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	504	0	0	504	0.30	
WL	1.0	1700	36	16	-10	42	0.02	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	131	0	0	131	0.08	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.90	D

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	385	0	0	385	0.11
NT	4.0	6800	1883	0	0	1883	0.28*
NR	1.0	1700	49	6	-3	52	0.03-
SL	2.0	3400	106	6	-3	109	0.03*
ST	3.0	5100	584	0	0	584	0.11
SR	1.0	1700	165	0	0	165	0.09-
EL	1.0	1700	326	0	0	326	0.19*
ET	3.0	5100	252	19	-8	263	0.05
ER >>	1.0	1700	317	0	0	317	0.19
WL	1.0	1700	27	18	-9	36	0.02
WT	3.0	5100	430	54	-26	458	0.09
WR	1.0	1700	496	18	-9	505	0.26-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.81 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	324	0	0	324	0.10*
NT	4.0	6800	959	0	0	959	0.14
NR	1.0	1700	78	16	-10	84	0.04-
SL	2.0	3400	597	16	-10	603	0.18
ST	3.0	5100	2037	0	0	2037	0.40*
SR	1.0	1700	285	0	0	285	0.14-
EL	1.0	1700	233	0	0	233	0.14*
ET	3.0	5100	591	53	-30	614	0.12
ER >>	1.0	1700	611	0	0	611	0.36
WL	1.0	1700	29	13	-5	37	0.02
WT	3.0	5100	231	42	-15	258	0.05
WR	1.0	1700	215	13	-5	223	0.11-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.80 C

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1323	72	-32	1363	0.80*
NR	1.0	1700	6	1	4	11	0.01-
SL	1.0	1700	10	0	0	10	0.01*
ST	1.0	1700	484	27	-8	503	0.30
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	13	1	6	20	0.01
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	93	0	0	93	0.04-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.90 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	507	59	-12	554	0.33
NR	1.0	1700	19	4	14	37	0.02-
SL	1.0	1700	87	0	0	87	0.05
ST	1.0	1700	1102	74	-32	1144	0.67*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	8	4	14	26	0.02*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	17	0	0	17	0.01-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.74 C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	9	1	7	17	0.01	
NT	2.0	3400	1174	73	-28	1219	0.36*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	498	28	-2	524	0.31	
SR	1.0	1700	43	0	0	43	0.03-	
EL	0.0	1700	240	0	0	240	0.14	
ET	1.0	1700	0	0	0	0	0.15*	
ER	0.0	1700	12	1	9	22	0.01	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.56	A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	35	4	21	60	0.04*	
NT	2.0	3400	581	63	2	646	0.19	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	1025	78	-18	1085	0.64*	
SR	1.0	1700	240	0	0	240	0.12-	
EL	0.0	1700	55	0	0	55	0.03	
ET	1.0	1700	0	0	0	0	0.05*	
ER	0.0	1700	7	4	22	33	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.78	C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	866	74	-35	905	0.53*
NR	1.0	1700	41	2	30	73	0.03-
SL	1.0	1700	140	0	19	159	0.09*
ST	1.0	1700	355	29	-12	372	0.22
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	57	4	19	80	0.05
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	333	0	14	347	0.17-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.84 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	473	67	-22	518	0.30*
NR	1.0	1700	105	12	67	184	0.09-
SL	1.0	1700	279	0	46	325	0.19*
ST	1.0	1700	726	82	-42	766	0.45
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	44	12	66	122	0.07
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	118	0	45	163	0.09-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.63 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	33	19	-9	43	0.03	
NT	1.0	1700	845	76	-23	898	0.53*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	371	33	-6	398	0.23	
SR	1.0	1700	13	0	13	26	0.02-	
EL	0.0	1700	103	0	18	121	0.07	
ET	1.0	1700	0	0	0	0	0.17*	
ER	0.0	1700	163	9	-3	169	0.10	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.75	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	152	21	-5	168	0.10*	
NT	1.0	1700	485	79	2	566	0.33	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	657	94	-18	733	0.43*	
SR	1.0	1700	26	0	42	68	0.03-	
EL	0.0	1700	35	0	43	78	0.05	
ET	1.0	1700	0	0	0	0	0.11*	
ER	0.0	1700	103	24	-10	117	0.07	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.69	B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Project Entrance (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	817	6	12	835	0.49*
NR	1.0	1700	71	84	-45	110	0.05-
SL	1.0	1700	24	30	-15	39	0.02*
ST	1.0	1700	439	12	6	457	0.27
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	191	248	-131	308	0.18*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	64	89	-44	109	0.05-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.74 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	535	36	24	595	0.35
NR	1.0	1700	191	228	-155	264	0.14-
SL	1.0	1700	64	82	-52	94	0.06
ST	1.0	1700	680	36	24	740	0.44*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	120	178	-80	218	0.13*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	40	64	-27	77	0.04-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.62 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	879	84	-39	924	0.54*
NR	1.0	1700	21	6	0	27	0.02-
SL	1.0	1700	5	12	4	21	0.01*
ST	1.0	1700	555	248	-129	674	0.40
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	150	6	0	156	0.09
WT	1.0	1700	0	0	0	0	0.13*
WR	0.0	1700	46	6	6	58	0.03
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.73 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	662	228	-145	745	0.44
NR	1.0	1700	108	24	0	132	0.07-
SL	1.0	1700	31	36	14	81	0.05
ST	1.0	1700	784	178	-70	892	0.52*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	53	24	0	77	0.05
WT	1.0	1700	0	0	0	0	0.08*
WR	0.0	1700	13	36	14	63	0.04
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.65 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	81	0	0	81	0.05
NT	1.0	1700	788	51	-21	818	0.48*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	1.0	1700	519	145	-70	594	0.35
SR	1.0	1700	150	109	-59	200	0.10-
EL	1.0	1700	111	39	-18	132	0.08
ET	0.0	0	0	0	0	0	0.00
ER	1.0	1700	243	0	0	243	0.12-*
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.65 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	244	0	0	244	0.14*
NT	1.0	1700	700	142	-79	763	0.45
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	1.0	1700	818	114	-39	893	0.53*
SR	1.0	1700	72	88	-31	129	0.07-
EL	1.0	1700	146	110	-66	190	0.11*
ET	0.0	0	0	0	0	0	0.00
ER	1.0	1700	206	0	0	206	0.10-
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.83 D

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	164	1	0	165	0.05
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	798	0	0	798	0.40-*
EL	1.0	1700	130	0	0	130	0.08*
ET	2.0	3400	201	38	-20	219	0.06
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	278	108	-61	325	0.10*
WR	1.0	1700	64	1	0	65	0.03-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.63 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	124	4	0	128	0.04
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	245	0	0	245	0.12-*
EL	1.0	1700	707	0	0	707	0.42*
ET	2.0	3400	305	106	-72	339	0.10
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	168	84	-37	215	0.06
WR	1.0	1700	226	4	0	230	0.12-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.71 C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	254	0	0	254	0.15*
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	329	19	-8	340	0.00-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	273	31	-14	290	0.11*
ER	0.0	1700	80	0	0	80	0.05
WL	2.0	3400	673	54	-26	701	0.21*
WT	2.0	3400	532	90	-44	578	0.17
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.52 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	93	0	0	93	0.05
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	758	53	-30	781	0.23-*
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	628	85	-50	663	0.32*
ER	0.0	1700	412	0	0	412	0.24
WL	2.0	3400	630	42	-15	657	0.19*
WT	2.0	3400	335	68	-25	378	0.11
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.79 C

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	120	0	0	120	0.04
NT	3.0	5100	2314	0	0	2314	0.45*
NR	1.0	1700	409	18	-12	415	0.20-
SL	2.0	3400	321	13	-9	325	0.10*
ST	3.0	5100	507	0	0	507	0.10
SR	1.0	1700	15	0	0	15	0.01-
EL	1.0	1700	5	0	0	5	0.01*
ET	1.5	2550	5	0	0	5	0.01
ER	1.5	2550	20	0	0	20	0.01-
WL	2.0	3400	478	53	-35	496	0.15
WT	1.0	1700	15	0	0	15	0.01
WR >	1.0	1700	629	36	-26	639	0.24-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.85 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	15	0	0	15	0.01*
NT	3.0	5100	986	0	0	986	0.19
NR	1.0	1700	492	49	-42	499	0.25-
SL	2.0	3400	488	37	-31	494	0.15
ST	3.0	5100	2457	0	0	2457	0.48*
SR	1.0	1700	5	0	0	5	0.01-
EL	1.0	1700	10	0	0	10	0.01
ET	1.5	2550	15	0	0	15	0.01
ER	1.5	2550	115	0	0	115	0.04-*
WL	2.0	3400	547	38	-22	563	0.17*
WT	1.0	1700	5	0	0	5	0.01
WR >	1.0	1700	410	29	-16	423	0.09-
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.75 C

* denotes critical movement
> denotes protected right turn (right turn overlap with adjacent left)
- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	776	0	0	776	0.23
NT	2.0	3400	1955	0	0	1955	0.58*
NR >>	1.0	1700	32	18	-9	41	0.02
SL	1.0	1700	72	0	0	72	0.04*
ST	2.0	3400	721	0	0	721	0.21
SR >>	1.0	1700	114	53	-35	132	0.08
EL	1.0	1700	115	18	-12	121	0.07*
ET	0.0	0	0	0	0	0	0.00
ER >>	1.0	1700	34	0	0	34	0.02
WL	1.0	1700	68	6	-3	71	0.04
WT	0.0	0	0	0	0	0	0.00*
WR >>	1.0	1700	620	0	0	620	0.36
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.74 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	99	0	0	99	0.03
NT	2.0	3400	1228	0	0	1228	0.36*
NR >>	1.0	1700	43	13	-5	51	0.03
SL	1.0	1700	738	0	0	738	0.43*
ST	2.0	3400	2326	0	0	2326	0.68
SR >>	1.0	1700	63	38	-22	79	0.05
EL	1.0	1700	95	49	-42	102	0.06*
ET	0.0	0	0	0	0	0	0.00
ER >>	1.0	1700	504	0	0	504	0.30
WL	1.0	1700	36	16	-10	42	0.02
WT	0.0	0	0	0	0	0	0.00*
WR >>	1.0	1700	131	0	0	131	0.08
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.90 D

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2000 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	385	0	0	385	0.11
NT	4.0	6800	1883	0	0	1883	0.28*
NR	1.0	1700	49	6	-3	52	0.03-
SL	2.0	3400	106	6	-3	109	0.03*
ST	3.0	5100	584	0	0	584	0.11
SR	1.0	1700	165	0	0	165	0.09-
EL	1.0	1700	326	0	0	326	0.19*
ET	3.0	5100	252	19	-8	263	0.05
ER >>	1.0	1700	317	0	0	317	0.19
WL	1.0	1700	27	18	-9	36	0.02
WT	3.0	5100	430	54	-26	458	0.09
WR	1.0	1700	496	18	-9	505	0.26-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.81 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	324	0	0	324	0.10*
NT	4.0	6800	959	0	0	959	0.14
NR	1.0	1700	78	16	-10	84	0.04-
SL	2.0	3400	597	16	-10	603	0.18
ST	3.0	5100	2037	0	0	2037	0.40*
SR	1.0	1700	285	0	0	285	0.14-
EL	1.0	1700	233	0	0	233	0.14*
ET	3.0	5100	591	53	-30	614	0.12
ER >>	1.0	1700	611	0	0	611	0.36
WL	1.0	1700	29	13	-5	37	0.02
WT	3.0	5100	231	42	-15	258	0.05
WR	1.0	1700	215	13	-5	223	0.11-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.80 C

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

APPENDIX G

ICU CALCULATIONS - YEAR 2020 WITHOUT PROJECT

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1750	0	-32	1718	1.01*
NR	1.0	1700	9	0	4	13	0.01-
SL	1.0	1700	17	0	0	17	0.01*
ST	1.0	1700	673	0	-8	665	0.39
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	21	0	6	27	0.02
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	172	0	0	172	0.09-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.16 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	757	0	-12	745	0.44
NR	1.0	1700	30	0	14	44	0.03-
SL	1.0	1700	163	0	0	163	0.10
ST	1.0	1700	1621	0	-32	1589	0.93*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	12	0	14	26	0.02*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	28	0	0	28	0.02-
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.00 E

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	11	0	7	18	0.01	
NT	1.0	1700	1609	0	-28	1581	0.93*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	691	0	-2	689	0.41	
SR	1.0	1700	57	0	0	57	0.03-	
EL	0.0	1700	318	0	0	318	0.19	
ET	1.0	1700	0	0	0	0	0.20*	
ER	0.0	1700	16	0	9	25	0.01	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		1.18	F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	45	0	21	66	0.04*	
NT	1.0	1700	807	0	2	809	0.48	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	1423	0	-18	1405	0.83*	
SR	1.0	1700	318	0	0	318	0.16-	
EL	0.0	1700	73	0	0	73	0.04	
ET	1.0	1700	0	0	0	0	0.06*	
ER	0.0	1700	9	0	22	31	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.98	E

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1181	0	-35	1146	0.67*
NR	1.0	1700	56	0	30	86	0.04-
SL	1.0	1700	190	0	19	209	0.12*
ST	1.0	1700	517	0	-12	505	0.30
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	79	0	19	98	0.06
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	452	0	14	466	0.23-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.07 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	688	0	-22	666	0.39*
NR	1.0	1700	145	0	67	212	0.10-
SL	1.0	1700	379	0	46	425	0.25*
ST	1.0	1700	1058	0	-42	1016	0.60
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	61	0	66	127	0.07
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	160	0	45	205	0.10-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.79 C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	48	0	-9	39	0.02	
NT	1.0	1700	1044	0	-23	1021	0.60*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	590	0	-6	584	0.34	
SR	1.0	1700	18	0	13	31	0.02-	
EL	0.0	1700	149	0	18	167	0.10	
ET	1.0	1700	0	0	0	0	0.24*	
ER	0.0	1700	237	0	-3	234	0.14	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.89	D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	222	0	-5	217	0.13*	
NT	1.0	1700	772	0	2	774	0.46	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	1045	0	-18	1027	0.60*	
SR	1.0	1700	38	0	42	80	0.04-	
EL	0.0	1700	51	0	43	94	0.06	
ET	1.0	1700	0	0	0	0	0.14*	
ER	0.0	1700	150	0	-10	140	0.08	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.92	E

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	1.0	1700	1175	0	-39	1136	0.67*	
NR	1.0	1700	26	0	0	26	0.02-	
SL	1.0	1700	6	0	4	10	0.01*	
ST	1.0	1700	881	0	-129	752	0.44	
SR	0.0	0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	1700	182	0	0	182	0.11	
WT	1.0	1700	0	0	0	0	0.14*	
WR	0.0	1700	56	0	6	62	0.04	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.87	D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00*	
NT	1.0	1700	1051	0	-145	906	0.53	
NR	1.0	1700	132	0	0	132	0.07-	
SL	1.0	1700	39	0	14	53	0.03	
ST	1.0	1700	1246	0	-70	1176	0.69*	
SR	0.0	0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	1700	64	0	0	64	0.04	
WT	1.0	1700	0	0	0	0	0.05*	
WR	0.0	1700	15	0	14	29	0.02	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.79	C

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	159	0	0	159	0.09	
NT	1.0	1700	1134	0	-21	1113	0.65*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	792	0	-70	722	0.42	
SR	1.0	1700	296	0	-59	237	0.12-	
EL	1.0	1700	220	0	-18	202	0.12	
ET	0.0	0	0	0	0	0	0.00	
ER	1.0	1700	480	0	0	480	0.24-*	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.94	E

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	479	0	0	479	0.28*	
NT	1.0	1700	1070	0	-79	991	0.58	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	1250	0	-39	1211	0.71*	
SR	1.0	1700	143	0	-31	112	0.06-	
EL	1.0	1700	289	0	-66	223	0.13	
ET	0.0	0	0	0	0	0	0.00	
ER	1.0	1700	406	0	0	406	0.20-*	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		1.24	F

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	0.0	0	0	0	0	0	0.00	
NR	0.0	0	0	0	0	0	0.00	
SL	2.0	3400	308	0	0	308	0.09	
ST	0.0	0	0	0	0	0	0.00	
SR	1.0	1700	997	0	0	997	0.50-*	
EL	1.0	1700	173	0	0	173	0.10*	
ET	2.0	3400	370	0	-20	350	0.10	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	0	0	0	0	0	0.00	
WT	2.0	3400	469	0	-61	408	0.12*	
WR	1.0	1700	120	0	0	120	0.06-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.77	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	0.0	0	0	0	0	0	0.00	
NR	0.0	0	0	0	0	0	0.00	
SL	2.0	3400	226	0	0	226	0.07	
ST	0.0	0	0	0	0	0	0.00	
SR	1.0	1700	326	0	0	326	0.16-*	
EL	1.0	1700	910	0	0	910	0.54*	
ET	2.0	3400	515	0	-72	443	0.13	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	0	0	0	0	0	0.00	
WT	2.0	3400	283	0	-37	246	0.07	
WR	1.0	1700	424	0	0	424	0.21-*	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.96	E

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	279	0	0	279	0.16*
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	582	0	-8	574	0.00-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	433	0	-14	419	0.17*
ER	0.0	1700	151	0	0	151	0.09
WL	2.0	3400	1253	0	-26	1227	0.36*
WT	2.0	3400	906	0	-44	862	0.25
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.74 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	176	0	0	176	0.10
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	1401	0	-30	1371	0.42-*
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	1100	0	-50	1050	0.54*
ER	0.0	1700	788	0	0	788	0.46
WL	2.0	3400	1106	0	-15	1091	0.32*
WT	2.0	3400	552	0	-25	527	0.16
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.33 F

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	250	0	0	250	0.07
NT	3.0	5100	2609	0	0	2609	0.51*
NR	1.0	1700	992	0	-12	980	0.49-
SL	2.0	3400	585	0	-9	576	0.17*
ST	3.0	5100	675	0	0	675	0.13
SR	1.0	1700	30	0	0	30	0.02-
EL	1.0	1700	10	0	0	10	0.01*
ET	1.5	2550	10	0	0	10	0.01
ER	1.5	2550	40	0	0	40	0.02-
WL	2.0	3400	785	0	-35	750	0.22
WT	1.0	1700	30	0	0	30	0.02
WR	1.0	1700	960	0	-26	934	0.47-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.21 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	30	0	0	30	0.01
NT	3.0	5100	1371	0	0	1371	0.27
NR	1.0	1700	806	0	-42	764	0.38-*
SL	2.0	3400	817	0	-31	786	0.23*
ST	3.0	5100	2808	0	0	2808	0.55
SR	1.0	1700	10	0	0	10	0.01-
EL	1.0	1700	20	0	0	20	0.01*
ET	1.5	2550	30	0	0	30	0.01
ER	1.5	2550	230	0	0	230	0.08-
WL	2.0	3400	1005	0	-22	983	0.29
WT	1.0	1700	10	0	0	10	0.01
WR	1.0	1700	768	0	-16	752	0.37-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.04 F

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	871	0	0	871	0.26
NT	2.0	3400	2683	0	0	2683	0.79*
NR >>	1.0	1700	54	0	-9	45	0.03
SL	1.0	1700	125	0	0	125	0.07*
ST	2.0	3400	1185	0	0	1185	0.35
SR >>	1.0	1700	204	0	-35	169	0.10
EL	1.0	1700	227	0	-12	215	0.13*
ET	0.0	0	0	0	0	0	0.00
ER >>	1.0	1700	60	0	0	60	0.04
WL	1.0	1700	115	0	-3	112	0.07
WT	0.0	0	0	0	0	0	0.00*
WR >>	1.0	1700	1002	0	0	1002	0.59
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.04 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	175	0	0	175	0.05
NT	2.0	3400	1924	0	0	1924	0.57*
NR >>	1.0	1700	73	0	-5	68	0.04
SL	1.0	1700	1261	0	0	1261	0.74*
ST	2.0	3400	2842	0	0	2842	0.84
SR >>	1.0	1700	124	0	-22	102	0.06
EL	1.0	1700	170	0	-42	128	0.08*
ET	0.0	0	0	0	0	0	0.00
ER >>	1.0	1700	890	0	0	890	0.52
WL	1.0	1700	62	0	-10	52	0.03
WT	0.0	0	0	0	0	0	0.00*
WR >>	1.0	1700	226	0	0	226	0.13
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.44 F

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	412	0	0	412	0.12
NT	4.0	6800	2643	0	0	2643	0.39*
NR	1.0	1700	76	0	-3	73	0.03-
SL	2.0	3400	187	0	-3	184	0.05*
ST	3.0	5100	762	0	0	762	0.15
SR	1.0	1700	236	0	0	236	0.12-
EL	1.0	1700	581	0	0	581	0.34*
ET	3.0	5100	379	0	-8	371	0.07
ER >>	1.0	1700	440	0	0	440	0.26
WL	1.0	1700	41	0	-9	32	0.02
WT	3.0	5100	623	0	-26	597	0.12
WR	1.0	1700	744	0	-9	735	0.37-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.20 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	321	0	0	321	0.09*
NT	4.0	6800	1535	0	0	1535	0.23
NR	1.0	1700	121	0	-10	111	0.06-
SL	2.0	3400	969	0	-10	959	0.28
ST	3.0	5100	3115	0	0	3115	0.61*
SR	1.0	1700	465	0	0	465	0.23-
EL	1.0	1700	362	0	0	362	0.21*
ET	3.0	5100	938	0	-30	908	0.18
ER >>	1.0	1700	787	0	0	787	0.46
WL	1.0	1700	45	0	-5	40	0.02
WT	3.0	5100	323	0	-15	308	0.06
WR	1.0	1700	355	0	-5	350	0.18-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.14 F

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	2.0	3400	1750	0	-32	1718	0.51*	
NR	1.0	1700	9	0	4	13	0.01-	
SL	1.0	1700	17	0	0	17	0.01*	
ST	2.0	3400	673	0	-8	665	0.20	
SR	0.0	0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0	0.00	
WL	1.0	1700	21	0	6	27	0.02	
WT	0.0	0	0	0	0	0	0.00	
WR	1.0	1700	172	0	0	172	0.09-*	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.66	B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00*	
NT	2.0	3400	757	0	-12	745	0.22	
NR	1.0	1700	30	0	14	44	0.03-	
SL	1.0	1700	163	0	0	163	0.10	
ST	2.0	3400	1621	0	-32	1589	0.47*	
SR	0.0	0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0	0.00	
WL	1.0	1700	12	0	14	26	0.02*	
WT	0.0	0	0	0	0	0	0.00	
WR	1.0	1700	28	0	0	28	0.02-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.54	A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	11	0	7	18	0.01
NT	2.0	3400	1609	0	-28	1581	0.47*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	2.0	3400	691	0	-2	689	0.20
SR	1.0	1700	57	0	0	57	0.03-
EL	0.0	1700	318	0	0	318	0.19
ET	1.0	1700	0	0	0	0	0.20*
ER	0.0	1700	16	0	9	25	0.01
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.72 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	45	0	21	66	0.04*
NT	2.0	3400	807	0	2	809	0.24
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	2.0	3400	1423	0	-18	1405	0.41*
SR	1.0	1700	318	0	0	318	0.16-
EL	0.0	1700	73	0	0	73	0.04
ET	1.0	1700	0	0	0	0	0.06*
ER	0.0	1700	9	0	22	31	0.02
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.56 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	2.0	3400	1181	0	-35	1146	0.34*
NR	1.0	1700	56	0	30	86	0.04-
SL	1.0	1700	190	0	19	209	0.12*
ST	2.0	3400	517	0	-12	505	0.15
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	79	0	19	98	0.06
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	452	0	14	466	0.23-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.74 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	2.0	3400	688	0	-22	666	0.20*
NR	1.0	1700	145	0	67	212	0.10-
SL	1.0	1700	379	0	46	425	0.25*
ST	2.0	3400	1058	0	-42	1016	0.30
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	61	0	66	127	0.07
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	160	0	45	205	0.10-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.60 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	48	0	-9	39	0.02
NT	2.0	3400	1044	0	-23	1021	0.30*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	2.0	3400	590	0	-6	584	0.17
SR	1.0	1700	18	0	13	31	0.02-
EL	0.0	1700	149	0	18	167	0.10
ET	1.0	1700	0	0	0	0	0.24*
ER	0.0	1700	237	0	-3	234	0.14
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.59 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	222	0	-5	217	0.13*
NT	2.0	3400	772	0	2	774	0.23
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	2.0	3400	1045	0	-18	1027	0.30*
SR	1.0	1700	38	0	42	80	0.04-
EL	0.0	1700	51	0	43	94	0.06
ET	1.0	1700	0	0	0	0	0.14*
ER	0.0	1700	150	0	-10	140	0.08
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.62 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	2.0	3400	1175	0	-39	1136	0.33*
NR	1.0	1700	26	0	0	26	0.02-
SL	1.0	1700	6	0	4	10	0.01*
ST	2.0	3400	881	0	-129	752	0.22
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	182	0	0	182	0.11
WT	1.0	1700	0	0	0	0	0.14*
WR	0.0	1700	56	0	6	62	0.04
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.53 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	2.0	3400	1051	0	-145	906	0.27
NR	1.0	1700	132	0	0	132	0.07-
SL	1.0	1700	39	0	14	53	0.03
ST	2.0	3400	1246	0	-70	1176	0.35*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	64	0	0	64	0.04
WT	1.0	1700	0	0	0	0	0.05*
WR	0.0	1700	15	0	14	29	0.02
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.45 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	159	0	0	159	0.09
NT	2.0	3400	1134	0	-21	1113	0.33*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	2.0	3400	792	0	-70	722	0.21
SR	1.0	1700	296	0	-59	237	0.12-
EL	1.0	1700	220	0	-18	202	0.12
ET	0.0	0	0	0	0	0	0.00
ER >	1.0	1700	480	0	0	480	0.16-*
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.54 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	479	0	0	479	0.28*
NT	2.0	3400	1070	0	-79	991	0.29
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	2.0	3400	1250	0	-39	1211	0.36*
SR	1.0	1700	143	0	-31	112	0.06-
EL	1.0	1700	289	0	-66	223	0.13*
ET	0.0	0	0	0	0	0	0.00
ER >	1.0	1700	406	0	0	406	0.00-
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.82 D

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	0.0	0	0	0	0	0	0.00	
NR	0.0	0	0	0	0	0	0.00	
SL	2.0	3400	308	0	0	308	0.09	
ST	0.0	0	0	0	0	0	0.00	
SR	1.0	1700	997	0	0	997	0.50-*	
EL	2.0	3400	173	0	0	173	0.05*	
ET	2.0	3400	370	0	-20	350	0.10	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	0	0	0	0	0	0.00	
WT	2.0	3400	469	0	-61	408	0.12*	
WR	1.0	1700	120	0	0	120	0.06-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.72	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	0.0	0	0	0	0	0	0.00	
NR	0.0	0	0	0	0	0	0.00	
SL	2.0	3400	226	0	0	226	0.07	
ST	0.0	0	0	0	0	0	0.00	
SR	1.0	1700	326	0	0	326	0.16-*	
EL	2.0	3400	910	0	0	910	0.27*	
ET	2.0	3400	515	0	-72	443	0.13	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	0	0	0	0	0	0.00	
WT	2.0	3400	283	0	-37	246	0.07	
WR	1.0	1700	424	0	0	424	0.21-*	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.69	B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	279	0	0	279	0.16*
NT	0.0	0	0	0	0	0	0.00
NR >	2.0	3400	582	0	-8	574	0.00-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	3.0	5100	433	0	-14	419	0.08*
ER >	1.0	1700	151	0	0	151	0.00-
WL	2.0	3400	1253	0	-26	1227	0.36*
WT	3.0	5100	906	0	-44	862	0.17
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.65 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	176	0	0	176	0.10*
NT	0.0	0	0	0	0	0	0.00
NR >	2.0	3400	1401	0	-30	1371	0.07-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	3.0	5100	1100	0	-50	1050	0.21
ER >	1.0	1700	788	0	0	788	0.31-*
WL	2.0	3400	1106	0	-15	1091	0.32*
WT	3.0	5100	552	0	-25	527	0.10
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.78 C

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	250	0	0	250	0.07
NT	3.0	5100	2609	0	0	2609	0.51*
NR >	1.0	1700	992	0	-12	980	0.37-
SL	2.0	3400	585	0	-9	576	0.17*
ST	3.0	5100	675	0	0	675	0.13
SR	1.0	1700	30	0	0	30	0.02-
EL	1.0	1700	10	0	0	10	0.01
ET	1.5	2550	10	0	0	10	0.01
ER	1.5	2550	40	0	0	40	0.02-*
WL	3.0	5100	785	0	-35	750	0.15*
WT	1.0	1700	30	0	0	30	0.02
WR >>	1.0	1700	960	0	-26	934	0.55
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.90 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	30	0	0	30	0.01*
NT	3.0	5100	1371	0	0	1371	0.27
NR >	1.0	1700	806	0	-42	764	0.22-
SL	2.0	3400	817	0	-31	786	0.23
ST	3.0	5100	2808	0	0	2808	0.55*
SR	1.0	1700	10	0	0	10	0.01-
EL	1.0	1700	20	0	0	20	0.01
ET	1.5	2550	30	0	0	30	0.01
ER	1.5	2550	230	0	0	230	0.08-*
WL	3.0	5100	1005	0	-22	983	0.19*
WT	1.0	1700	10	0	0	10	0.01
WR >>	1.0	1700	768	0	-16	752	0.44
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.88 D

* denotes critical movement
>> denotes free right turn
> denotes protected right turn (right turn overlap with adjacent left)
- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	871	0	0	871	0.26	
NT	3.0	5100	2683	0	0	2683	0.53*	
NR >>	1.0	1700	54	0	-9	45	0.03	
SL	2.0	3400	125	0	0	125	0.04*	
ST	3.0	5100	1185	0	0	1185	0.23	
SR >>	1.0	1700	204	0	-35	169	0.10	
EL	1.0	1700	227	0	-12	215	0.13*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	60	0	0	60	0.04	
WL	1.0	1700	115	0	-3	112	0.07	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	1002	0	0	1002	0.59	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.75	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	175	0	0	175	0.05	
NT	3.0	5100	1924	0	0	1924	0.38*	
NR >>	1.0	1700	73	0	-5	68	0.04	
SL	2.0	3400	1261	0	0	1261	0.37*	
ST	3.0	5100	2842	0	0	2842	0.56	
SR >>	1.0	1700	124	0	-22	102	0.06	
EL	1.0	1700	170	0	-42	128	0.08*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	890	0	0	890	0.52	
WL	1.0	1700	62	0	-10	52	0.03	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	226	0	0	226	0.13	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.88	D

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	412	0	0	412	0.12
NT	4.0	6800	2643	0	0	2643	0.39*
NR	1.0	1700	76	0	-3	73	0.03-
SL	2.0	3400	187	0	-3	184	0.05*
ST	3.0	5100	762	0	0	762	0.15
SR	1.0	1700	236	0	0	236	0.12-
EL	2.0	3400	581	0	0	581	0.17*
ET	3.0	5100	379	0	-8	371	0.07
ER >>	1.0	1700	440	0	0	440	0.26
WL	1.0	1700	41	0	-9	32	0.02
WT	2.0	3400	623	0	-26	597	0.18*
WR >	2.0	3400	744	0	-9	735	0.14-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.84 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	321	0	0	321	0.09*
NT	4.0	6800	1535	0	0	1535	0.23
NR	1.0	1700	121	0	-10	111	0.06-
SL	2.0	3400	969	0	-10	959	0.28
ST	3.0	5100	3115	0	0	3115	0.61*
SR	1.0	1700	465	0	0	465	0.23-
EL	2.0	3400	362	0	0	362	0.11*
ET	3.0	5100	938	0	-30	908	0.18
ER >>	1.0	1700	787	0	0	787	0.46
WL	1.0	1700	45	0	-5	40	0.02
WT	2.0	3400	323	0	-15	308	0.09*
WR >	2.0	3400	355	0	-5	350	0.00-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.95 E

* denotes critical movement
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\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions Without Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	412	0	0	412	0.12
NT	4.0	6800	2643	0	0	2643	0.39*
NR	1.0	1700	76	0	-3	73	0.03-
SL	2.0	3400	187	0	-3	184	0.05*
ST	4.0	6800	762	0	0	762	0.15
SR	0.0	1700	236	0	0	236	0.14
EL	2.0	3400	581	0	0	581	0.17*
ET	3.0	5100	379	0	-8	371	0.07
ER >>	1.0	1700	440	0	0	440	0.26
WL	1.0	1700	41	0	-9	32	0.02
WT	2.0	3400	623	0	-26	597	0.18*
WR >	2.0	3400	744	0	-9	735	0.14-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.84 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	321	0	0	321	0.09*
NT	4.0	6800	1535	0	0	1535	0.23
NR	1.0	1700	121	0	-10	111	0.06-
SL	2.0	3400	969	0	-10	959	0.28
ST	4.0	6800	3115	0	0	3115	0.53*
SR	0.0	1700	465	0	0	465	0.27
EL	2.0	3400	362	0	0	362	0.11*
ET	3.0	5100	938	0	-30	908	0.18
ER >>	1.0	1700	787	0	0	787	0.46
WL	1.0	1700	45	0	-5	40	0.02
WT	2.0	3400	323	0	-15	308	0.09*
WR >	2.0	3400	355	0	-5	350	0.00-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.87 D

* denotes critical movement
>> denotes free right turn
> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

APPENDIX H

ICU CALCULATIONS - YEAR 2020 WITH PROJECT

* Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)
* Intersection # 2

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	1750	757	1248	461
NR	9	30	5	17
SL	17	163	9	34
ST	673	1621	349	865
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	21	12	12	7
WT	0	0	0	0
WR	172	28	44	15
* Totals	2642	2611		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	690	1784			
* North Leg OUT	1922	785			
* North Leg TOTAL	2612	2569	11	11	24000
* South Leg IN	1759	787			
* South Leg OUT	694	1633			
* South Leg TOTAL	2453	2420	11	11	22000
* East Leg IN	193	40			
* East Leg OUT	26	193			
* East Leg TOTAL	219	233	11	12	2000
* West Leg IN	0	0			
* West Leg OUT	0	0			
* West Leg TOTAL	0	0	0	0	0
* TOTALS	5284	5222	11	11	48000

* Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)
3 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	11	45	5	20
NT	1609	807	1069	452
NR	0	0	0	0
SL	0	0	0	0
ST	691	1423	387	797
SR	57	318	28	156
EL	318	73	156	36
ET	0	0	0	0
ER	16	9	7	4
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
* Totals	2702	2675		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	748	1741			
* North Leg OUT	1927	880			
* North Leg TOTAL	2675	2621	12	12	22000
* South Leg IN	1620	852			
* South Leg OUT	707	1432			
* South Leg TOTAL	2327	2284	12	11	20000
* East Leg IN	0	0			
* East Leg OUT	0	0			
* East Leg TOTAL	0	0	0	0	0
* West Leg IN	334	82			
* West Leg OUT	68	363			
* West Leg TOTAL	402	445	8	9	5000
* TOTALS	5404	5350	11	11	47000

* Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)
4 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	1181	688	813	378
NR	56	145	37	95
SL	190	379	112	223
ST	517	1058	284	581
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	79	61	52	40
WT	0	0	0	0
WR	452	160	266	94
* Totals	2475	2491		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	707	1437			
* North Leg OUT	1633	848			
* North Leg TOTAL	2340	2285	12	11	20000
* South Leg IN	1237	833			
* South Leg OUT	596	1119			
* South Leg TOTAL	1833	1952	8	8	23000
* East Leg IN	531	221			
* East Leg OUT	246	524			
* East Leg TOTAL	777	745	11	11	7000
* West Leg IN	0	0			
* West Leg OUT	0	0			
* West Leg TOTAL	0	0	0	0	0
* TOTALS	4950	4982	10	10	50000

* Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

* Intersection #	Future Peak Hour Volumes		Existing Peak Hour Volumes	
* Move	AM	PM	AM	PM
NL	48	222	25	115
NT	1044	772	768	441
NR	0	0	0	0
SL	0	0	0	0
ST	590	1045	337	597
SR	18	38	10	21
EL	149	51	82	28
ET	0	0	0	0
ER	237	150	123	78
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
* Totals	2086	2278		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	608	1083			
* North Leg OUT	1193	823			
* North Leg TOTAL	1801	1906	8	8	23000
* South Leg IN	1092	994			
* South Leg OUT	827	1195			
* South Leg TOTAL	1919	2189	7	8	26000
* East Leg IN	0	0			
* East Leg OUT	0	0			
* East Leg TOTAL	0	0	0	0	0
* West Leg IN	386	201			
* West Leg OUT	66	260			
* West Leg TOTAL	452	461	11	12	4000
* TOTALS	4172	4556	8	9	53000

* Intersection: El Toro Rd. (NS) / Project Entrance (EW)
6 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	1089	909	0	0
NR	71	191	0	0
SL	24	64	0	0
ST	748	1133	0	0
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	191	120	0	0
WT	0	0	0	0
WR	64	40	0	0
* Totals	2187	2457		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	772	1197			
* North Leg OUT	1153	949			
* North Leg TOTAL	1925	2146	7	8	26000
* South Leg IN	1160	1100			
* South Leg OUT	939	1253			
* South Leg TOTAL	2099	2353	8	9	26000
* East Leg IN	255	160			
* East Leg OUT	95	255			
* East Leg TOTAL	350	415	12	14	3000
* West Leg IN	0	0			
* West Leg OUT	0	0			
* West Leg TOTAL	0	0	0	0	0
* TOTALS	4374	4914	8	9	55000

* Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)
7 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	1175	1051	765	545
NR	26	132	13	66
SL	6	39	3	20
ST	881	1246	457	646
SR	0	0	0	0
EL	0	0	0	0
ET	0	0	0	0
ER	0	0	0	0
WL	182	64	91	32
WT	0	0	0	0
WR	56	15	29	8
* Totals	2326	2547		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	887	1285			
* North Leg OUT	1231	1066			
* North Leg TOTAL	2118	2351	8	9	26000
* South Leg IN	1201	1183			
* South Leg OUT	1063	1310			
* South Leg TOTAL	2264	2493	8	9	28000
* East Leg IN	238	79			
* East Leg OUT	32	171			
* East Leg TOTAL	270	250	14	13	2000
* West Leg IN	0	0			
* West Leg OUT	0	0			
* West Leg TOTAL	0	0	0	0	0
* TOTALS	4652	5094	8	9	56000

* Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)
8 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	159	479	43	130
NT	1134	1070	740	552
NR	0	0	0	0
SL	0	0	0	0
ST	792	1250	409	645
SR	296	143	79	38
EL	220	289	32	77
ET	0	0	0	0
ER	480	406	103	110
WL	0	0	0	0
WT	0	0	0	0
WR	0	0	0	0
* Totals	3081	3637		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	1088	1393			
* North Leg OUT	1354	1359			
* North Leg TOTAL	2442	2752	9	10	28000
* South Leg IN	1293	1549			
* South Leg OUT	1272	1656			
* South Leg TOTAL	2565	3205	9	11	30000
* East Leg IN	0	0			
* East Leg OUT	0	0			
* East Leg TOTAL	0	0	0	0	0
* West Leg IN	700	695			
* West Leg OUT	455	622			
* West Leg TOTAL	1155	1317	5	6	22000
* TOTALS	6162	7274	8	9	80000

* Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

18 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	0	0	0	0
NT	0	0	0	0
NR	0	0	0	0
SL	308	226	82	87
ST	0	0	0	0
SR	997	326	352	96
EL	173	910	51	297
ET	370	515	33	100
ER	0	0	0	0
WL	0	0	0	0
WT	469	283	91	55
WR	120	424	32	113
* Totals	2437	2684		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	1305	552			
* North Leg OUT	293	1334			
* North Leg TOTAL	1598	1886	13	16	12000
* South Leg IN	0	0			
* South Leg OUT	0	0			
* South Leg TOTAL	0	0	0	0	0
* East Leg IN	589	707			
* East Leg OUT	678	741			
* East Leg TOTAL	1267	1448	6	7	22000
* West Leg IN	543	1425			
* West Leg OUT	1466	609			
* West Leg TOTAL	2009	2034	8	8	24000
* TOTALS	4874	5368	8	9	58000

* Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)
10 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	279	176	158	58
NT	0	0	0	0
NR	582	1401	278	427
SL	0	0	0	0
ST	0	0	0	0
SR	0	0	0	0
EL	0	0	0	0
ET	433	1100	207	287
ER	151	788	50	194
WL	1253	1106	339	571
WT	906	552	290	216
WR	0	0	0	0
* Totals	3604	5123		

* Intersection	Peak Hour Leg Volumes --AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	0	0			
* North Leg OUT	0	0			
* North Leg TOTAL	0	0	0	0	0
* South Leg IN	861	1577			
* South Leg OUT	1404	1894			
* South Leg TOTAL	2265	3471	5	8	45000
* East Leg IN	2159	1658			
* East Leg OUT	1015	2501			
* East Leg TOTAL	3174	4159	11	14	30000
* West Leg IN	584	1888			
* West Leg OUT	1185	728			
* West Leg TOTAL	1769	2616	6	9	30000
* TOTALS	7208	10246	7	10	105000

* Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)
20 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	250	30	0	0
NT	2609	1371	1855	552
NR	992	806	22	145
SL	585	817	45	126
ST	675	2808	312	1935
SR	30	10	0	0
EL	10	20	0	0
ET	10	30	0	0
ER	40	230	0	0
WL	785	1005	140	73
WT	30	10	0	0
WR	960	768	234	41
* Totals	6976	7905		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	1290	3635			
* North Leg OUT	3579	2159			
* North Leg TOTAL	4869	5794	9	11	53000
* South Leg IN	3851	2207			
* South Leg OUT	1500	4043			
* South Leg TOTAL	5351	6250	8	10	64000
* East Leg IN	1775	1783			
* East Leg OUT	1587	1653			
* East Leg TOTAL	3362	3436	12	12	29000
* West Leg IN	60	280			
* West Leg OUT	310	50			
* West Leg TOTAL	370	330	0	0	0
* TOTALS	13952	15810	10	11	146000

* Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)
21 * Intersection #

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	871	175	345	44
NT	2683	1924	1049	455
NR	54	73	14	19
SL	125	1261	38	415
ST	1185	2842	219	1547
SR	204	124	60	7
EL	227	170	8	50
ET	0	0	0	0
ER	60	890	15	224
WL	115	62	30	16
WT	0	0	0	0
WR	1002	226	458	69
* Totals	6526	7747		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	1514	4227			
* North Leg OUT	3912	2320			
* North Leg TOTAL	5426	6547	8	10	64000
* South Leg IN	3608	2172			
* South Leg OUT	1360	3794			
* South Leg TOTAL	4968	5966	7	8	74000
* East Leg IN	1117	288			
* East Leg OUT	179	1334			
* East Leg TOTAL	1296	1622	6	8	20000
* West Leg IN	287	1060			
* West Leg OUT	1075	299			
* West Leg TOTAL	1362	1359	8	8	17000
* TOTALS	13052	15494	7	9	175000

* Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)
* Intersection # 11

* Move	Future Peak Hour Volumes AM	PM	Existing Peak Hour Volumes AM	PM
NL	412	321	413	377
NT	2643	1535	1105	376
NR	76	121	37	59
SL	187	969	29	256
ST	762	3115	204	1240
SR	236	465	81	91
EL	581	362	62	90
ET	379	938	171	333
ER	440	787	224	502
WL	41	45	20	22
WT	623	323	326	191
WR	744	355	281	85
* Totals	7124	9336		

* Intersection Peak Hour Leg Volumes	--AM--	--PM--	Percent of ADT --AM--	--PM--	ADT
* North Leg IN	1185	4519			
* North Leg OUT	3968	2252			
* North Leg TOTAL	5153	6801	7	9	74000
* South Leg IN	3131	1977			
* South Leg OUT	1243	3947			
* South Leg TOTAL	4374	5924	9	13	47000
* East Leg IN	1408	723			
* East Leg OUT	642	2028			
* East Leg TOTAL	2050	2751	7	9	30000
* West Leg IN	1400	2087			
* West Leg OUT	1271	1109			
* West Leg TOTAL	2671	3196	8	9	34000
* TOTALS	14248	18672	8	10	185000

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1750	72	-32	1790	1.05*
NR	1.0	1700	9	1	4	14	0.01-
SL	1.0	1700	17	0	0	17	0.01*
ST	1.0	1700	673	27	-8	692	0.41
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	21	1	6	28	0.02
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	172	0	0	172	0.09-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.20 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	757	59	-12	804	0.47
NR	1.0	1700	30	4	14	48	0.03-
SL	1.0	1700	163	0	0	163	0.10
ST	1.0	1700	1621	74	-32	1663	0.98*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	12	4	14	30	0.02*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	28	0	0	28	0.02-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.05 F

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	11	1	7	19	0.01	
NT	1.0	1700	1609	73	-28	1654	0.97*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	1.0	1700	691	28	-2	717	0.42	
SR	1.0	1700	57	0	0	57	0.03-	
EL	0.0	1700	318	0	0	318	0.19	
ET	1.0	1700	0	0	0	0	0.20*	
ER	0.0	1700	16	1	9	26	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		1.22	F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	45	4	21	70	0.04*	
NT	1.0	1700	807	63	2	872	0.51	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	1.0	1700	1423	78	-18	1483	0.87*	
SR	1.0	1700	318	0	0	318	0.16-	
EL	0.0	1700	73	0	0	73	0.04	
ET	1.0	1700	0	0	0	0	0.06*	
ER	0.0	1700	9	4	22	35	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		1.02	F

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1181	74	-35	1220	0.72*
NR	1.0	1700	56	2	30	88	0.04-
SL	1.0	1700	190	0	19	209	0.12*
ST	1.0	1700	517	29	-12	534	0.31
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	79	4	19	102	0.06
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	452	0	14	466	0.23-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.12 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	688	67	-22	733	0.43*
NR	1.0	1700	145	12	67	224	0.11-
SL	1.0	1700	379	0	46	425	0.25*
ST	1.0	1700	1058	82	-42	1098	0.65
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	61	12	66	139	0.08
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	160	0	45	205	0.10-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.83 D

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	48	19	-9	58	0.03
NT	1.0	1700	1044	76	-23	1097	0.65*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	1.0	1700	590	33	-6	617	0.36
SR	1.0	1700	18	0	13	31	0.02-
EL	0.0	1700	149	0	18	167	0.10
ET	1.0	1700	0	0	0	0	0.24*
ER	0.0	1700	237	9	-3	243	0.14
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.94 E

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	222	21	-5	238	0.14*
NT	1.0	1700	772	79	2	853	0.50
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	1.0	1700	1045	94	-18	1121	0.66*
SR	1.0	1700	38	0	42	80	0.04-
EL	0.0	1700	51	0	43	94	0.06
ET	1.0	1700	0	0	0	0	0.15*
ER	0.0	1700	150	24	-10	164	0.10
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.00 E

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Project Entrance (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1089	6	12	1107	0.65*
NR	1.0	1700	71	84	-45	110	0.05-
SL	1.0	1700	24	30	-15	39	0.02*
ST	1.0	1700	748	12	6	766	0.45
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	191	248	-131	308	0.18*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	64	89	-44	109	0.05-
						Clearance Interval Percentage =	0.05
						Sum of Critical Movements =	0.90 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	909	36	24	969	0.57
NR	1.0	1700	191	228	-155	264	0.14-
SL	1.0	1700	64	82	-52	94	0.06
ST	1.0	1700	1133	36	24	1193	0.70*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	120	178	-80	218	0.13*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	40	64	-27	77	0.04-
						Clearance Interval Percentage =	0.05
						Sum of Critical Movements =	0.88 D

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	1.0	1700	1175	84	-39	1220	0.72*
NR	1.0	1700	26	6	0	32	0.02-
SL	1.0	1700	6	12	4	22	0.01*
ST	1.0	1700	881	248	-129	1000	0.59
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	182	6	0	188	0.11
WT	1.0	1700	0	0	0	0	0.15*
WR	0.0	1700	56	6	6	68	0.04
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.93 E

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	1.0	1700	1051	228	-145	1134	0.67
NR	1.0	1700	132	24	0	156	0.08-
SL	1.0	1700	39	36	14	89	0.05
ST	1.0	1700	1246	178	-70	1354	0.80*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	64	24	0	88	0.05
WT	1.0	1700	0	0	0	0	0.09*
WR	0.0	1700	15	36	14	65	0.04
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.94 E

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	159	0	0	159	0.09
NT	1.0	1700	1134	51	-21	1164	0.68*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	1.0	1700	792	145	-70	867	0.51
SR	1.0	1700	296	109	-59	346	0.17-
EL	1.0	1700	220	39	-18	241	0.14
ET	0.0	0	0	0	0	0	0.00
ER	1.0	1700	480	0	0	480	0.24-*
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.97 E

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	479	0	0	479	0.28*
NT	1.0	1700	1070	142	-79	1133	0.67
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	1.0	1700	1250	114	-39	1325	0.78*
SR	1.0	1700	143	88	-31	200	0.10-
EL	1.0	1700	289	110	-66	333	0.20*
ET	0.0	0	0	0	0	0	0.00
ER	1.0	1700	406	0	0	406	0.20-
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.31 F

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	308	1	0	309	0.09
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	997	0	0	997	0.50-*
EL	1.0	1700	173	0	0	173	0.10*
ET	2.0	3400	370	38	-20	388	0.11
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	469	108	-61	516	0.15*
WR	1.0	1700	120	1	0	121	0.06-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.80 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	0.0	0	0	0	0	0	0.00
NR	0.0	0	0	0	0	0	0.00
SL	2.0	3400	226	4	0	230	0.07
ST	0.0	0	0	0	0	0	0.00
SR	1.0	1700	326	0	0	326	0.16-*
EL	1.0	1700	910	0	0	910	0.54*
ET	2.0	3400	515	106	-72	549	0.16
ER	0.0	0	0	0	0	0	0.00
WL	0.0	0	0	0	0	0	0.00
WT	2.0	3400	283	84	-37	330	0.10
WR	1.0	1700	424	4	0	428	0.21-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.96 E

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	279	0	0	279	0.16*
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	582	19	-8	593	0.00-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	433	31	-14	450	0.18*
ER	0.0	1700	151	0	0	151	0.09
WL	2.0	3400	1253	54	-26	1281	0.38*
WT	2.0	3400	906	90	-44	952	0.28
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.77 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	176	0	0	176	0.10
NT	0.0	0	0	0	0	0	0.00
NR >	1.0	1700	1401	53	-30	1424	0.43-*
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	2.0	3400	1100	85	-50	1135	0.57*
ER	0.0	1700	788	0	0	788	0.46
WL	2.0	3400	1106	42	-15	1133	0.33*
WT	2.0	3400	552	68	-25	595	0.18
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.38 F

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	250	0	0	250	0.07
NT	3.0	5100	2609	0	0	2609	0.51*
NR	1.0	1700	992	18	-12	998	0.50-
SL	2.0	3400	585	13	-9	589	0.17*
ST	3.0	5100	675	0	0	675	0.13
SR	1.0	1700	30	0	0	30	0.02-
EL	1.0	1700	10	0	0	10	0.01*
ET	1.5	2550	10	0	0	10	0.01
ER	1.5	2550	40	0	0	40	0.02-
WL	2.0	3400	785	53	-35	803	0.24
WT	1.0	1700	30	0	0	30	0.02
WR	1.0	1700	960	36	-26	970	0.48-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.22 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	30	0	0	30	0.01
NT	3.0	5100	1371	0	0	1371	0.27
NR	1.0	1700	806	49	-42	813	0.41-*
SL	2.0	3400	817	37	-31	823	0.24*
ST	3.0	5100	2808	0	0	2808	0.55
SR	1.0	1700	10	0	0	10	0.01-
EL	1.0	1700	20	0	0	20	0.01*
ET	1.5	2550	30	0	0	30	0.01
ER	1.5	2550	230	0	0	230	0.08-
WL	2.0	3400	1005	38	-22	1021	0.30
WT	1.0	1700	10	0	0	10	0.01
WR	1.0	1700	768	29	-16	781	0.39-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.10 F

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	871	0	0	871	0.26
NT	2.0	3400	2683	0	0	2683	0.79*
NR >>	1.0	1700	54	18	-9	63	0.04
SL	1.0	1700	125	0	0	125	0.07*
ST	2.0	3400	1185	0	0	1185	0.35
SR >>	1.0	1700	204	53	-35	222	0.13
EL	1.0	1700	227	18	-12	233	0.14*
ET	0.0	0	0	0	0	0	0.00
ER >>	1.0	1700	60	0	0	60	0.04
WL	1.0	1700	115	6	-3	118	0.07
WT	0.0	0	0	0	0	0	0.00*
WR >>	1.0	1700	1002	0	0	1002	0.59
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.05 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	175	0	0	175	0.05
NT	2.0	3400	1924	0	0	1924	0.57*
NR >>	1.0	1700	73	13	-5	81	0.05
SL	1.0	1700	1261	0	0	1261	0.74*
ST	2.0	3400	2842	0	0	2842	0.84
SR >>	1.0	1700	124	38	-22	140	0.08
EL	1.0	1700	170	49	-42	177	0.10*
ET	0.0	0	0	0	0	0	0.00
ER >>	1.0	1700	890	0	0	890	0.52
WL	1.0	1700	62	16	-10	68	0.04
WT	0.0	0	0	0	0	0	0.00*
WR >>	1.0	1700	226	0	0	226	0.13
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		1.46 F

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Existing

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	412	0	0	412	0.12
NT	4.0	6800	2643	0	0	2643	0.39*
NR	1.0	1700	76	6	-3	79	0.04-
SL	2.0	3400	187	6	-3	190	0.06*
ST	3.0	5100	762	0	0	762	0.15
SR	1.0	1700	236	0	0	236	0.12-
EL	1.0	1700	581	0	0	581	0.34*
ET	3.0	5100	379	19	-8	390	0.08
ER >>	1.0	1700	440	0	0	440	0.26
WL	1.0	1700	41	18	-9	50	0.03
WT	3.0	5100	623	54	-26	651	0.13
WR	1.0	1700	744	18	-9	753	0.37-*
						Clearance Interval Percentage =	0.05
						Sum of Critical Movements =	1.21 F

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	321	0	0	321	0.09*
NT	4.0	6800	1535	0	0	1535	0.23
NR	1.0	1700	121	16	-10	127	0.06-
SL	2.0	3400	969	16	-10	975	0.29
ST	3.0	5100	3115	0	0	3115	0.61*
SR	1.0	1700	465	0	0	465	0.23-
EL	1.0	1700	362	0	0	362	0.21*
ET	3.0	5100	938	53	-30	961	0.19
ER >>	1.0	1700	787	0	0	787	0.46
WL	1.0	1700	45	13	-5	53	0.03
WT	3.0	5100	323	42	-15	350	0.07
WR	1.0	1700	355	13	-5	363	0.18-*
						Clearance Interval Percentage =	0.05
						Sum of Critical Movements =	1.14 F

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Modjeska Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	2.0	3400	1750	72	-32	1790	0.53*
NR	1.0	1700	9	1	4	14	0.01-
SL	1.0	1700	17	0	0	17	0.01*
ST	2.0	3400	673	27	-8	692	0.20
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	21	1	6	28	0.02
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	172	0	0	172	0.09-*
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.68 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	2.0	3400	757	59	-12	804	0.24
NR	1.0	1700	30	4	14	48	0.03-
SL	1.0	1700	163	0	0	163	0.10
ST	2.0	3400	1621	74	-32	1663	0.49*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	12	4	14	30	0.02*
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	28	0	0	28	0.02-
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.56 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Santiago Cyn. Rd. (NS) / Ridgeline Rd. North (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	11	1	7	19	0.01	
NT	2.0	3400	1609	73	-28	1654	0.49*	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00*	
ST	2.0	3400	691	28	-2	717	0.21	
SR	1.0	1700	57	0	0	57	0.03-	
EL	0.0	1700	318	0	0	318	0.19	
ET	1.0	1700	0	0	0	0	0.20*	
ER	0.0	1700	16	1	9	26	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.74	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio	
NL	1.0	1700	45	4	21	70	0.04*	
NT	2.0	3400	807	63	2	872	0.26	
NR	0.0	0	0	0	0	0	0.00	
SL	0.0	0	0	0	0	0	0.00	
ST	2.0	3400	1423	78	-18	1483	0.44*	
SR	1.0	1700	318	0	0	318	0.16-	
EL	0.0	1700	73	0	0	73	0.04	
ET	1.0	1700	0	0	0	0	0.06*	
ER	0.0	1700	9	4	22	35	0.02	
WL	0.0	0	0	0	0	0	0.00	
WT	0.0	0	0	0	0	0	0.00	
WR	0.0	0	0	0	0	0	0.00	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.59	A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Live Oak Cyn. Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	2.0	3400	1181	74	-35	1220	0.36*
NR	1.0	1700	56	2	30	88	0.04-
SL	1.0	1700	190	0	19	209	0.12*
ST	2.0	3400	517	29	-12	534	0.16
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	79	4	19	102	0.06
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	452	0	14	466	0.23-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.76 C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	2.0	3400	688	67	-22	733	0.22*
NR	1.0	1700	145	12	67	224	0.11-
SL	1.0	1700	379	0	46	425	0.25*
ST	2.0	3400	1058	82	-42	1098	0.32
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	1.0	1700	61	12	66	139	0.08
WT	0.0	0	0	0	0	0	0.00
WR	1.0	1700	160	0	45	205	0.10-*
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.62 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Ridgeline Rd. South (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	48	19	-9	58	0.03
NT	2.0	3400	1044	76	-23	1097	0.32*
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00*
ST	2.0	3400	590	33	-6	617	0.18
SR	1.0	1700	18	0	13	31	0.02-
EL	0.0	1700	149	0	18	167	0.10
ET	1.0	1700	0	0	0	0	0.24*
ER	0.0	1700	237	9	-3	243	0.14
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.61 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	222	21	-5	238	0.14*
NT	2.0	3400	772	79	2	853	0.25
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	2.0	3400	1045	94	-18	1121	0.33*
SR	1.0	1700	38	0	42	80	0.04-
EL	0.0	1700	51	0	43	94	0.06
ET	1.0	1700	0	0	0	0	0.15*
ER	0.0	1700	150	24	-10	164	0.10
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.67 B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Project Entrance (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	2.0	3400	1089	6	12	1107	0.33*	
NR	1.0	1700	71	84	-45	110	0.05-	
SL	1.0	1700	24	30	-15	39	0.02*	
ST	2.0	3400	748	12	6	766	0.23	
SR	0.0	0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0	0.00	
WL	1.0	1700	191	248	-131	308	0.18*	
WT	0.0	0	0	0	0	0	0.00	
WR	1.0	1700	64	89	-44	109	0.05-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.58	A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00*	
NT	2.0	3400	909	36	24	969	0.29	
NR	1.0	1700	191	228	-155	264	0.14-	
SL	1.0	1700	64	82	-52	94	0.06	
ST	2.0	3400	1133	36	24	1193	0.35*	
SR	0.0	0	0	0	0	0	0.00	
EL	0.0	0	0	0	0	0	0.00	
ET	0.0	0	0	0	0	0	0.00	
ER	0.0	0	0	0	0	0	0.00	
WL	1.0	1700	120	178	-80	218	0.13*	
WT	0.0	0	0	0	0	0	0.00	
WR	1.0	1700	40	64	-27	77	0.04-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.53	A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Valley Vista Wy. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00
NT	2.0	3400	1175	84	-39	1220	0.36*
NR	1.0	1700	26	6	0	32	0.02-
SL	1.0	1700	6	12	4	22	0.01*
ST	2.0	3400	881	248	-129	1000	0.29
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	182	6	0	188	0.11
WT	1.0	1700	0	0	0	0	0.15*
WR	0.0	1700	56	6	6	68	0.04
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.57 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	0.0	0	0	0	0	0	0.00*
NT	2.0	3400	1051	228	-145	1134	0.33
NR	1.0	1700	132	24	0	156	0.08-
SL	1.0	1700	39	36	14	89	0.05
ST	2.0	3400	1246	178	-70	1354	0.40*
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	0.0	0	0	0	0	0	0.00
ER	0.0	0	0	0	0	0	0.00
WL	0.0	1700	64	24	0	88	0.05
WT	1.0	1700	0	0	0	0	0.09*
WR	0.0	1700	15	36	14	65	0.04
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.54 A

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: El Toro Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	159	0	0	159	0.09*
NT	2.0	3400	1134	51	-21	1164	0.34
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	2.0	3400	792	145	-70	867	0.26*
SR	1.0	1700	296	109	-59	346	0.17-
EL	2.0	3400	220	39	-18	241	0.07
ET	0.0	0	0	0	0	0	0.00
ER >	1.0	1700	480	0	0	480	0.16-*
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.56 A

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	479	0	0	479	0.28*
NT	2.0	3400	1070	142	-79	1133	0.33
NR	0.0	0	0	0	0	0	0.00
SL	0.0	0	0	0	0	0	0.00
ST	2.0	3400	1250	114	-39	1325	0.39*
SR	1.0	1700	143	88	-31	200	0.10-
EL	2.0	3400	289	110	-66	333	0.10*
ET	0.0	0	0	0	0	0	0.00
ER >	1.0	1700	406	0	0	406	0.00-
WL	0.0	0	0	0	0	0	0.00
WT	0.0	0	0	0	0	0	0.00
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.82 D

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Saddleback Ranch Rd. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	0.0	0	0	0	0	0	0.00	
NR	0.0	0	0	0	0	0	0.00	
SL	2.0	3400	308	1	0	309	0.09	
ST	0.0	0	0	0	0	0	0.00	
SR	1.0	1700	997	0	0	997	0.50-*	
EL	2.0	3400	173	0	0	173	0.05*	
ET	2.0	3400	370	38	-20	388	0.11	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	0	0	0	0	0	0.00	
WT	2.0	3400	469	108	-61	516	0.15*	
WR	1.0	1700	120	1	0	121	0.06-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.75	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	0.0	0	0	0	0	0	0.00	
NT	0.0	0	0	0	0	0	0.00	
NR	0.0	0	0	0	0	0	0.00	
SL	2.0	3400	226	4	0	230	0.07	
ST	0.0	0	0	0	0	0	0.00	
SR	1.0	1700	326	0	0	326	0.16-*	
EL	2.0	3400	910	0	0	910	0.27*	
ET	2.0	3400	515	106	-72	549	0.16	
ER	0.0	0	0	0	0	0	0.00	
WL	0.0	0	0	0	0	0	0.00	
WT	2.0	3400	283	84	-37	330	0.10	
WR	1.0	1700	424	4	0	428	0.21-*	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.69	B

* denotes critical movement
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Marguerite Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	279	0	0	279	0.16*
NT	0.0	0	0	0	0	0	0.00
NR >	2.0	3400	582	19	-8	593	0.00-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	3.0	5100	433	31	-14	450	0.09*
ER >	1.0	1700	151	0	0	151	0.00-
WL	2.0	3400	1253	54	-26	1281	0.38*
WT	3.0	5100	906	90	-44	952	0.19
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.68 B

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	1.0	1700	176	0	0	176	0.10*
NT	0.0	0	0	0	0	0	0.00
NR >	2.0	3400	1401	53	-30	1424	0.08-
SL	0.0	0	0	0	0	0	0.00
ST	0.0	0	0	0	0	0	0.00
SR	0.0	0	0	0	0	0	0.00
EL	0.0	0	0	0	0	0	0.00
ET	3.0	5100	1100	85	-50	1135	0.22
ER >	1.0	1700	788	0	0	788	0.31-*
WL	2.0	3400	1106	42	-15	1133	0.33*
WT	3.0	5100	552	68	-25	595	0.12
WR	0.0	0	0	0	0	0	0.00
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.79 C

* denotes critical movement
\> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Glenn Ranch Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	250	0	0	250	0.07
NT	3.0	5100	2609	0	0	2609	0.51*
NR >	1.0	1700	992	18	-12	998	0.37-
SL	2.0	3400	585	13	-9	589	0.17*
ST	3.0	5100	675	0	0	675	0.13
SR	1.0	1700	30	0	0	30	0.02-
EL	1.0	1700	10	0	0	10	0.01
ET	1.0	1700	10	0	0	10	0.01*
ER	2.0	3400	40	0	0	40	0.01-
WL	3.0	5100	785	53	-35	803	0.16*
WT	1.0	1700	30	0	0	30	0.02
WR >>	1.0	1700	960	36	-26	970	0.57
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.90 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	V O L U M E S Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	30	0	0	30	0.01*
NT	3.0	5100	1371	0	0	1371	0.27
NR >	1.0	1700	806	49	-42	813	0.24-
SL	2.0	3400	817	37	-31	823	0.24
ST	3.0	5100	2808	0	0	2808	0.55*
SR	1.0	1700	10	0	0	10	0.01-
EL	1.0	1700	20	0	0	20	0.01
ET	1.0	1700	30	0	0	30	0.02
ER	2.0	3400	230	0	0	230	0.06-*
WL	3.0	5100	1005	38	-22	1021	0.20*
WT	1.0	1700	10	0	0	10	0.01
WR >>	1.0	1700	768	29	-16	781	0.46
							=======
					Clearance Interval Percentage =		0.05
					Sum of Critical Movements =		0.87 D

* denotes critical movement
>> denotes free right turn
> denotes protected right turn (right turn overlap with adjacent left)
- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / Foothill Transportation Corridor (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	871	0	0	871	0.26	
NT	3.0	5100	2683	0	0	2683	0.53*	
NR >>	1.0	1700	54	18	-9	63	0.04	
SL	2.0	3400	125	0	0	125	0.04*	
ST	3.0	5100	1185	0	0	1185	0.23	
SR >>	1.0	1700	204	53	-35	222	0.13	
EL	1.0	1700	227	18	-12	233	0.14*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	60	0	0	60	0.04	
WL	1.0	1700	115	6	-3	118	0.07	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	1002	0	0	1002	0.59	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.76	C

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	175	0	0	175	0.05	
NT	3.0	5100	1924	0	0	1924	0.38*	
NR >>	1.0	1700	73	13	-5	81	0.05	
SL	2.0	3400	1261	0	0	1261	0.37*	
ST	3.0	5100	2842	0	0	2842	0.56	
SR >>	1.0	1700	124	38	-22	140	0.08	
EL	1.0	1700	170	49	-42	177	0.10*	
ET	0.0	0	0	0	0	0	0.00	
ER >>	1.0	1700	890	0	0	890	0.52	
WL	1.0	1700	62	16	-10	68	0.04	
WT	0.0	0	0	0	0	0	0.00*	
WR >>	1.0	1700	226	0	0	226	0.13	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.90	D

* denotes critical movement
>> denotes free right turn
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	412	0	0	412	0.12	
NT	4.0	6800	2643	0	0	2643	0.39*	
NR	1.0	1700	76	6	-3	79	0.04-	
SL	2.0	3400	187	6	-3	190	0.06*	
ST	3.0	5100	762	0	0	762	0.15	
SR	1.0	1700	236	0	0	236	0.12-	
EL	2.0	3400	581	0	0	581	0.17*	
ET	3.0	5100	379	19	-8	390	0.08	
ER >>	1.0	1700	440	0	0	440	0.26	
WL	1.0	1700	41	18	-9	50	0.03	
WT	2.0	3400	623	54	-26	651	0.19*	
WR >	2.0	3400	744	18	-9	753	0.14-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.86	D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio	
NL	2.0	3400	321	0	0	321	0.09*	
NT	4.0	6800	1535	0	0	1535	0.23	
NR	1.0	1700	121	16	-10	127	0.06-	
SL	2.0	3400	969	16	-10	975	0.29	
ST	3.0	5100	3115	0	0	3115	0.61*	
SR	1.0	1700	465	0	0	465	0.23-	
EL	2.0	3400	362	0	0	362	0.11	
ET	3.0	5100	938	53	-30	961	0.19*	
ER >>	1.0	1700	787	0	0	787	0.46	
WL	1.0	1700	45	13	-5	53	0.03*	
WT	2.0	3400	323	42	-15	350	0.10	
WR >	2.0	3400	355	13	-5	363	0.00-	
							=======	
					Clearance Interval Percentage =		0.05	
					Sum of Critical Movements =		0.97	E

* denotes critical movement
>> denotes free right turn
> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

Intersection: Portola Pkwy. (NS) / El Toro Rd. (EW)

Project: Saddleback Meadows Traffic Impact Study Report

Traffic Condition: Year 2020 Conditions With Project
Lane Configuration: Initial Alternate

AM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	412	0	0	412	0.12
NT	4.0	6800	2643	0	0	2643	0.39*
NR	1.0	1700	76	6	-3	79	0.04-
SL	2.0	3400	187	6	-3	190	0.06*
ST	4.0	6800	762	0	0	762	0.15
SR	0.0	1700	236	0	0	236	0.14
EL	2.0	3400	581	0	0	581	0.17*
ET	3.0	5100	379	19	-8	390	0.08
ER >>	1.0	1700	440	0	0	440	0.26
WL	1.0	1700	41	18	-9	50	0.03
WT	2.0	3400	623	54	-26	651	0.19*
WR >	2.0	3400	744	18	-9	753	0.14-
						Clearance Interval Percentage =	0.05
						Sum of Critical Movements =	0.86 D

PM Intersection Capacity Analysis

Move	Lanes	Capacity	VOLUMES Background	Project	Other	Total	V/C Ratio
NL	2.0	3400	321	0	0	321	0.09*
NT	4.0	6800	1535	0	0	1535	0.23
NR	1.0	1700	121	16	-10	127	0.06-
SL	2.0	3400	969	16	-10	975	0.29
ST	4.0	6800	3115	0	0	3115	0.53*
SR	0.0	1700	465	0	0	465	0.27
EL	2.0	3400	362	0	0	362	0.11
ET	3.0	5100	938	53	-30	961	0.19*
ER >>	1.0	1700	787	0	0	787	0.46
WL	1.0	1700	45	13	-5	53	0.03*
WT	2.0	3400	323	42	-15	350	0.10
WR >	2.0	3400	355	13	-5	363	0.00-
						Clearance Interval Percentage =	0.05
						Sum of Critical Movements =	0.89 D

* denotes critical movement
>> denotes free right turn
> denotes protected right turn (right turn overlap with adjacent left)
\- denotes V/C ratio reduced 15 percent for right turn on red

APPENDIX I

TRAFFIC SIGNAL WARRANTS

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing

Major Street Name = **Santiago Cyn. Rd.**

Total of Both Approaches (VPH) = **1489**

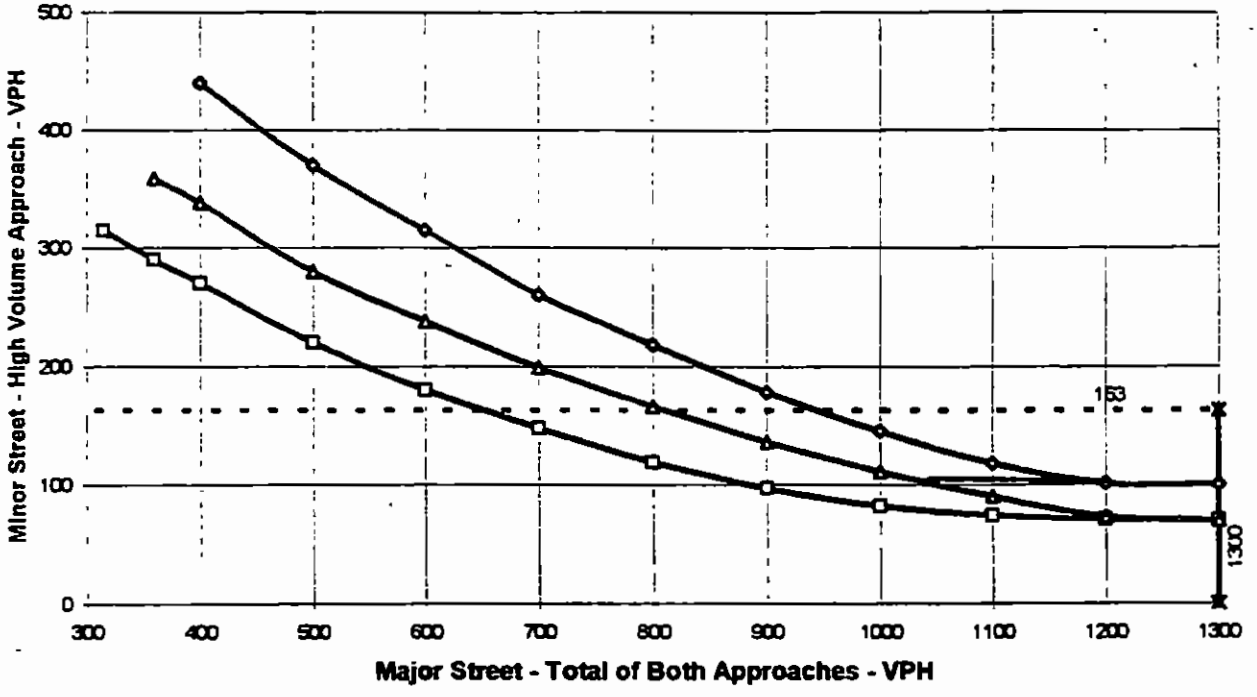
Number of Approach Lanes Major Street = 1

Minor Street Name = **Ridgeline Rd.**

High Volume Approach (VPH) = **163**

Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



1 Lane (Major) & 1 Lane (Minor)

2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)

2+ Lanes (Major) & 2+ Lanes (Minor)

Major Street Approaches

Minor Street Approaches

** NOTE

100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

RKJK Rural (RURAL AREA WARRANT) 3/11/97

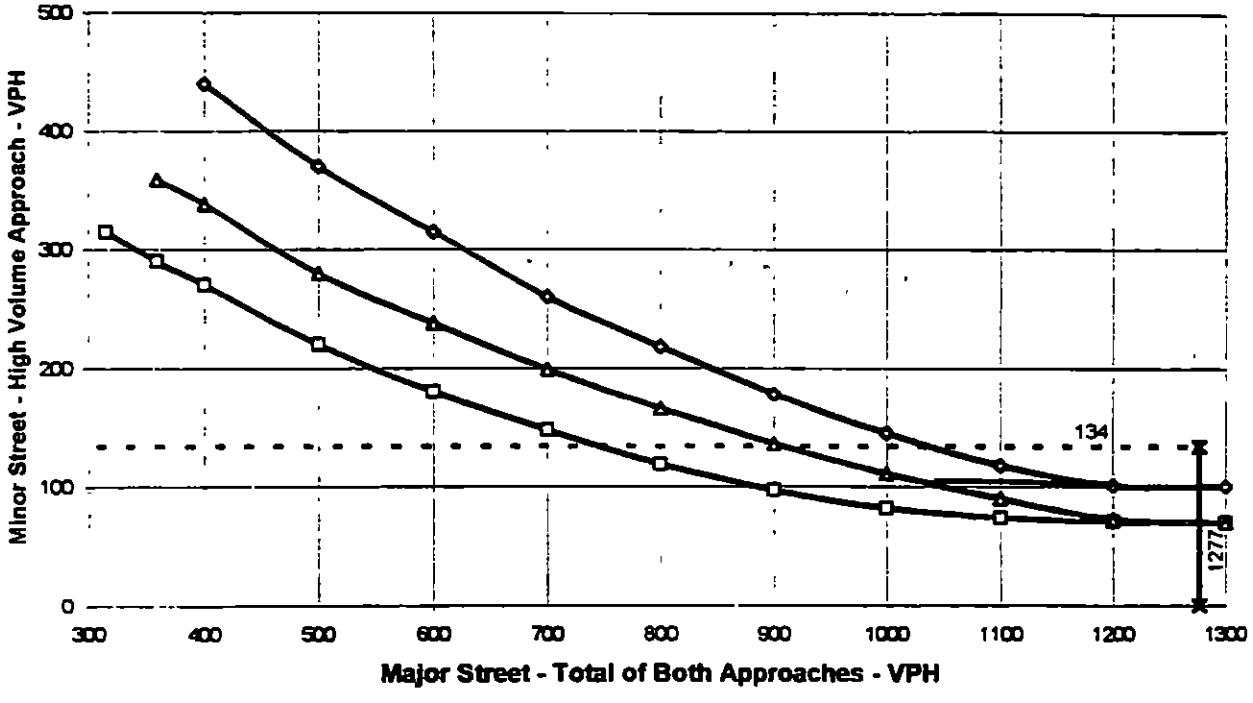
PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing

Major Street Name = El Toro Rd. Total of Both Approaches (VPH) = 1277
Number of Approach Lanes Major Street = 1

Minor Street Name = Live Oak Cyn. Rd. High Volume Approach (VPH) = 134
Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



1 Lane (Major) & 1 Lane (Minor)
2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
2+ Lanes (Major) & 2+ Lanes (Minor)
Major Street Approaches
Minor Street Approaches

** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

RKJK Rural (RURAL AREA WARRANT) 3/11/97

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Plus Project

Major Street Name = El Toro Rd.

Total of Both Approaches (VPH) = **1613**

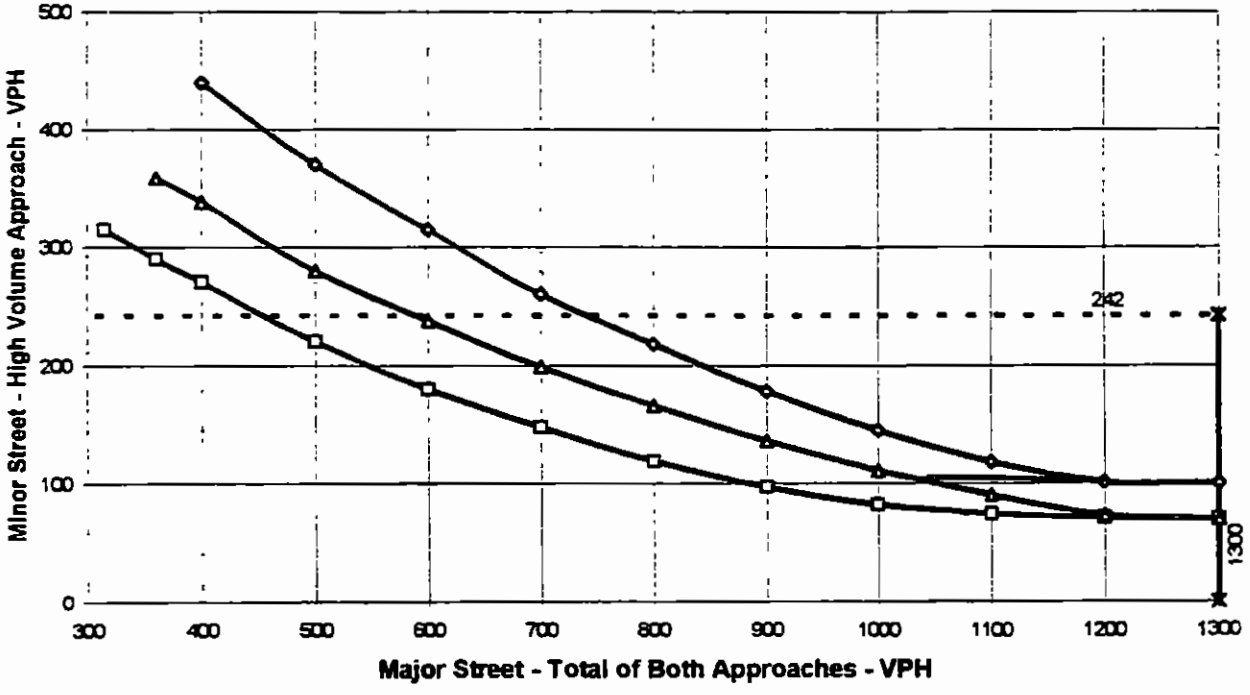
Number of Approach Lanes Major Street = **1**

Minor Street Name = Project Entrance

High Volume Approach (VPH) = **242**

Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



1 Lane (Major) & 1 Lane (Minor)

2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)

2+ Lanes (Major) & 2+ Lanes (Minor)

Major Street Approaches

Minor Street Approaches

** NOTE.
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

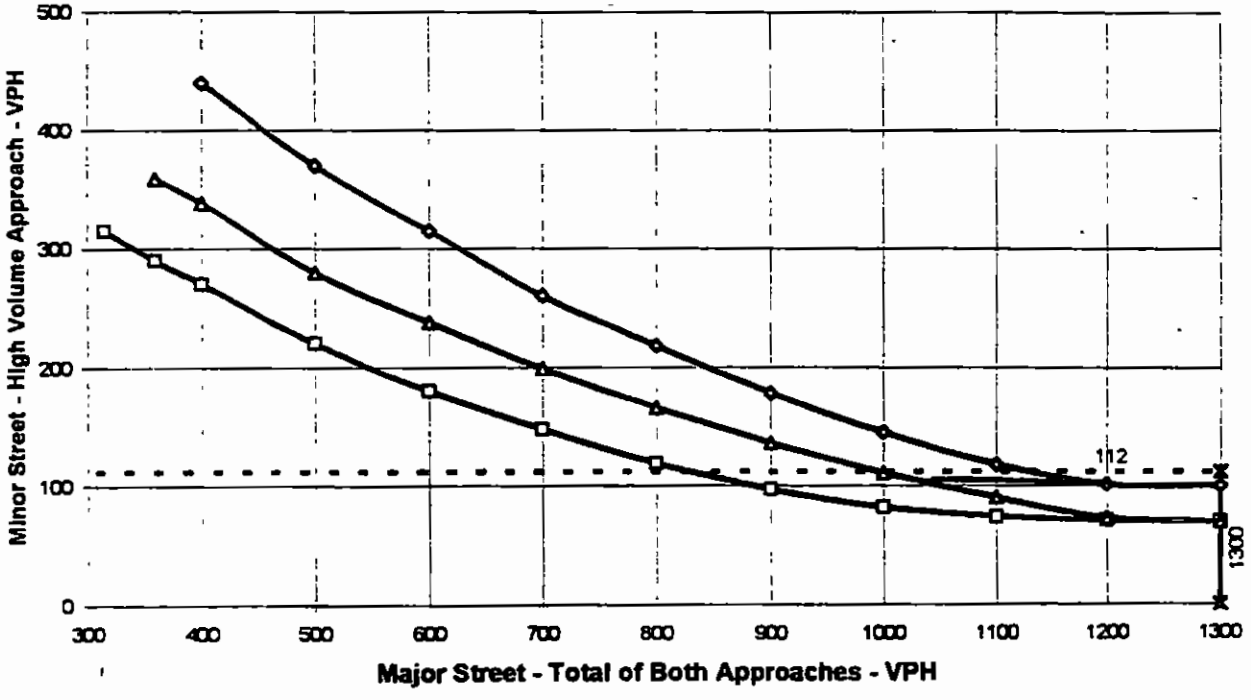
PEAK HOUR VOLUME WARRANT
(Rural Areas)

Year 2000 Without Project

Major Street Name = **Santiago Cyn. Rd.** Total of Both Approaches (VPH) = **1787**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Modjeska Cyn. Rd.** High Volume Approach (VPH) = **112**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



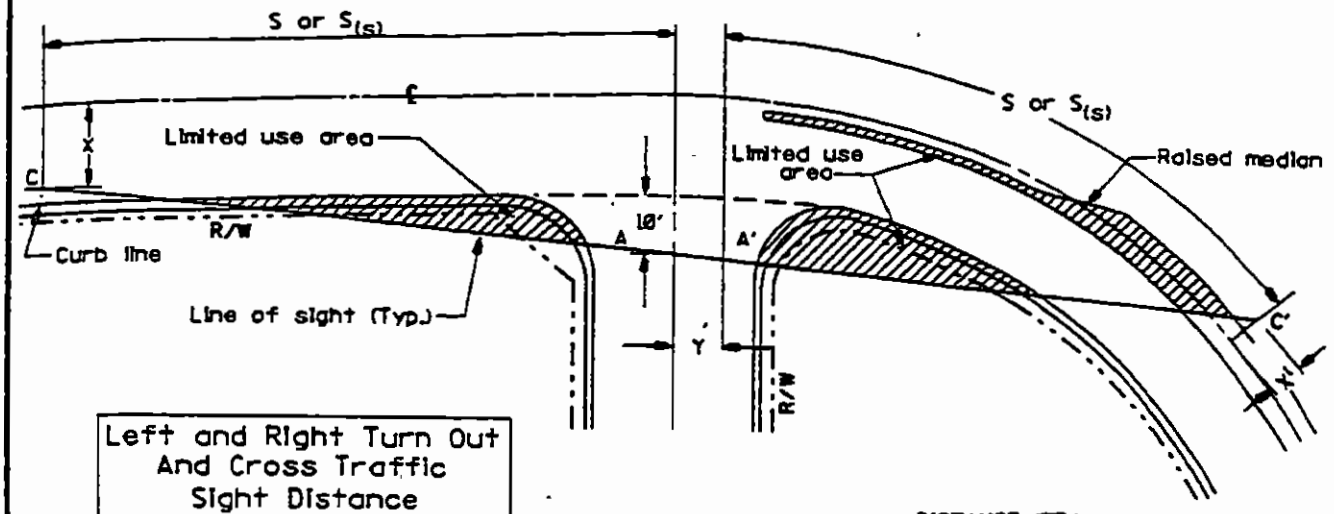
- 1 Lane (Major) & 1 Lane (Minor)
- 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- 2+ Lanes (Major) & 2+ Lanes (Minor)
- Major Street Approaches
- Minor Street Approaches

** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

RKJK Rural (RURAL AREA WARRANT) 3/11/97

APPENDIX J

SIGHT DISTANCE STANDARDS



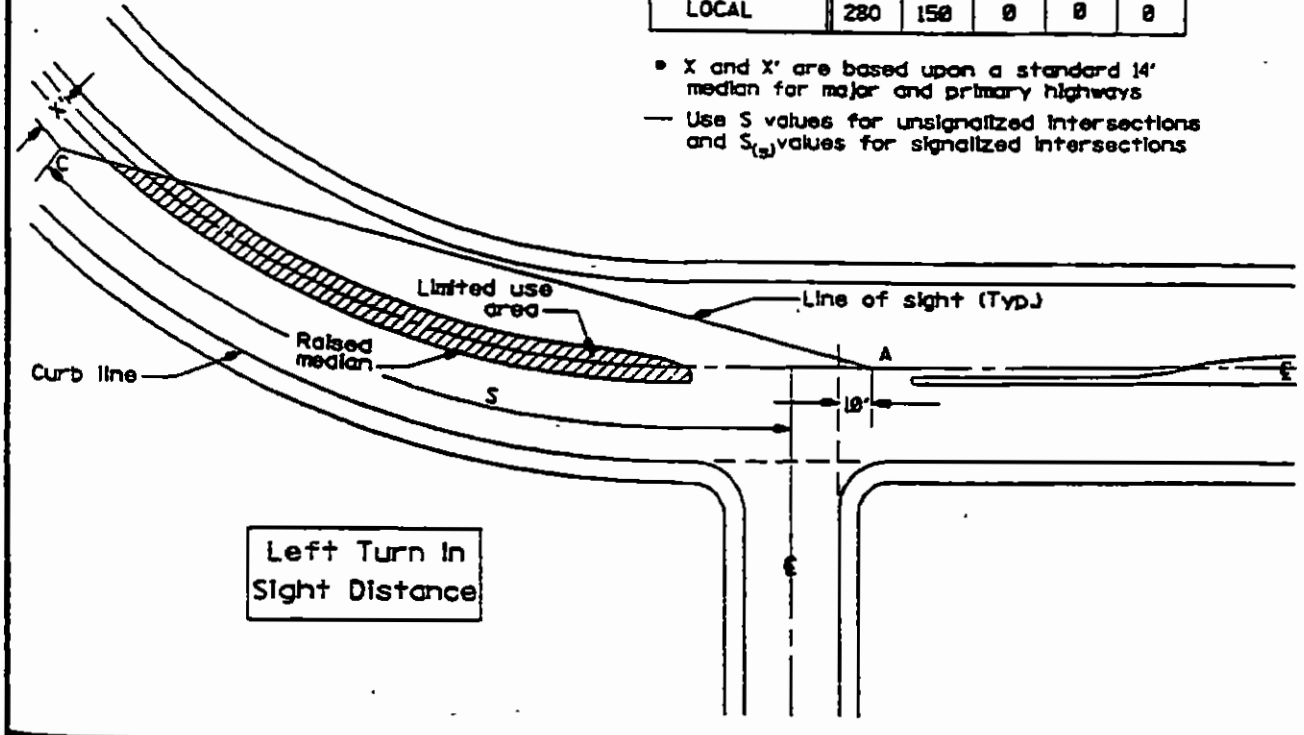
Left and Right Turn Out And Cross Traffic Sight Distance

DISTANCE (FT.)

	S	$S_{(s)}$	Y'	X*	X'*
MAJOR	660	580	37	37	13
PRIMARY	610	500	25	25	13
SECONDARY	550	430	18	18	6
COMMUTER	500	360	0	0	0
COLLECTOR	390	250	0	0	0
LOCAL	280	150	0	0	0

* X and X' are based upon a standard 14' median for major and primary highways

— Use S values for unsignalized intersections and $S_{(s)}$ values for signalized intersections



Left Turn In Sight Distance

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

Approved W.L. Zoon 11-15-91
W.L. Zoon, Director of Public Works

Adopted: Res. 77-92 Revised: Res. 82-718; 86-1141; 88-1341; 91-1481

INTERSECTION SIGHT DISTANCE

STD. PLAN 1117

SHT. 1 OF 3

NOTES:

1. The distance S represents the corner sight distance measured along the centerline of the road. The corner sight distance is the distance required to allow 7 1/2 seconds for the driver on the cross road (or left turn pocket) to safely cross the main roadway or turn left while the approach vehicle travels at the assumed design speed of the main roadway.

2. The distance S should be increased by 20% from the amount shown on the table on sustained downgrades steeper than 3% and longer than one mile.

3. Points A and A' are the locations of a driver's line of sight (3.5 foot eye height) to oncoming vehicles (4.25 foot object height) located at Points C and C' while in a vehicle at an intersection 10 feet back from the projection of the curb line. In no case shall Points A or A' be less than fifteen feet from the edge of the traveled way.

4. The distance Y' is the distance measured from the centerline of the main road to the far right through travel lane. The distance Y' is equal to zero for T-intersections. The distance X is the distance measured from the centerline of the main road to the center of the far right through travel lane. The distance X' is the distance measured from the centerline of the main road to the center of the travel lane nearest the centerline of the road.

5. The Limited Use Area is determined by the graphical method using the appropriate distances given in the above table. It shall be used for the purpose of prohibiting or clearing obstructions in order to maintain adequate sight distance at intersections.

6. The Line of Sight line shall be shown at intersections on all landscaping plans, grading plans and tentative tract plans where safe sight distance is questionable. In cases where an intersection is located on a vertical curve, a profile of the line of sight may be required.

7. Obstructions such as bus shelters, walls or landscaping within the Limited Use Area which could restrict the line of sight shall not be permitted.
   a. Plants and shrubs within the Limited Use Area shall be of the type that will grow no higher than 12 inches above the ground and shall be maintained at a maximum height of 12 inches above the ground. Maintenance at a lower height may be required on crest vertical curves per Note 6 above.
   b. A profile of the line of sight may be required to verify 12" minimum vertical clearance above variable height obstructions such as slope landscaping, plants and shrubs.
   c. The toe of slope may encroach into the Limited Use Area provided that the requirements of (b) above are satisfied.
   d. In lieu of providing a profile of the line of sight, the toe of slope shall not encroach into the Limited Use Area, and the Limited Use Area shall slope at 2% maximum to the roadway.

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

Approved W.L. Zoth 11-15-91
W.L. Zoth, Director of Public Works

Adopted: Res. 77-92 Revised: Res. 82-718; 86-1141; 88-1341; 91-1481

STD. PLAN 1117

INTERSECTION SIGHT DISTANCE

SHT. 2 OF 3

8. Trees shall not be permitted within any portion of the Limited Use Area.

9. Median areas less than six (6) feet in width shall be paved with concrete per Standard Plan 1114.

10. Residential driveways serving four or more units and comercial driveways shall be treated as a local street intersection.

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

Approved W.L. Zoll 11-15-91
W.L. Zoll, Director of Public Works

Adopted: Res. 77-92 Revised: Res. 82-718; 86-1141; 88-1341; 91-1481

STD. PLAN
1117
SHT. 3 OF 3

INTERSECTION SIGHT DISTANCE

APPENDIX K

PASS-BY/DIVERTED TRIPS

VII. Quantifying Pass-By and Diverted Linked Trips

Background

The trip generation rates and equations contained in this report were derived from actual measurements of traffic on the driveways of land uses or buildings. However, in some cases, the driveway volume at a generator is different than the amount of traffic *added* to the street system. Buildings such as retail establishments, restaurants, banks, service stations and convenience markets attract a portion of their trips from traffic passing the site on the way from one location to another.

Trip making where this phenomenon occurs can be broken down into the following four categories of trips:

- Primary Trips (N_{Pr})
- Pass-by Trips (N_{Pb})
- Diverted Linked Trips (N_D)
- Non Pass-by Trips (N_{nPb})

These trips are defined as follows:

Primary Trips are trips made for the specific purpose of visiting the generator. The stop at that generator is the primary reason for the trip. For example, a home-to-shopping-to-home combination of trips is a primary trip set.

Pass-By Trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on an adjacent street which contains direct access to the generator. These trips do not require a diversion from another roadway.

Diverted Linked Trips are trips attracted from the traffic volume on roadways within the vicinity of the generator but which require a diversion from that roadway to another roadway to gain access to the site. These roadways could include streets or freeways adjacent to the generator but without access to the generator.

Non Pass-By Trips refer to the total of the primary trips and the diverted linked trips. This term is used when diverted linked trips are not quantified, but pass-by trips are quantified (i.e., the non pass-by trips are equal to the total trips minus the pass-by trips).

Figure VII-1 indicates an example of roadways from which pass-by trips and diverted linked trips are produced. It should be noted that the vicinity of the generator has not been defined. Research is needed to determine the size of the area or distance from a generator from which diverted linked trips are produced (much like the market area of a shopping center for primary trips).

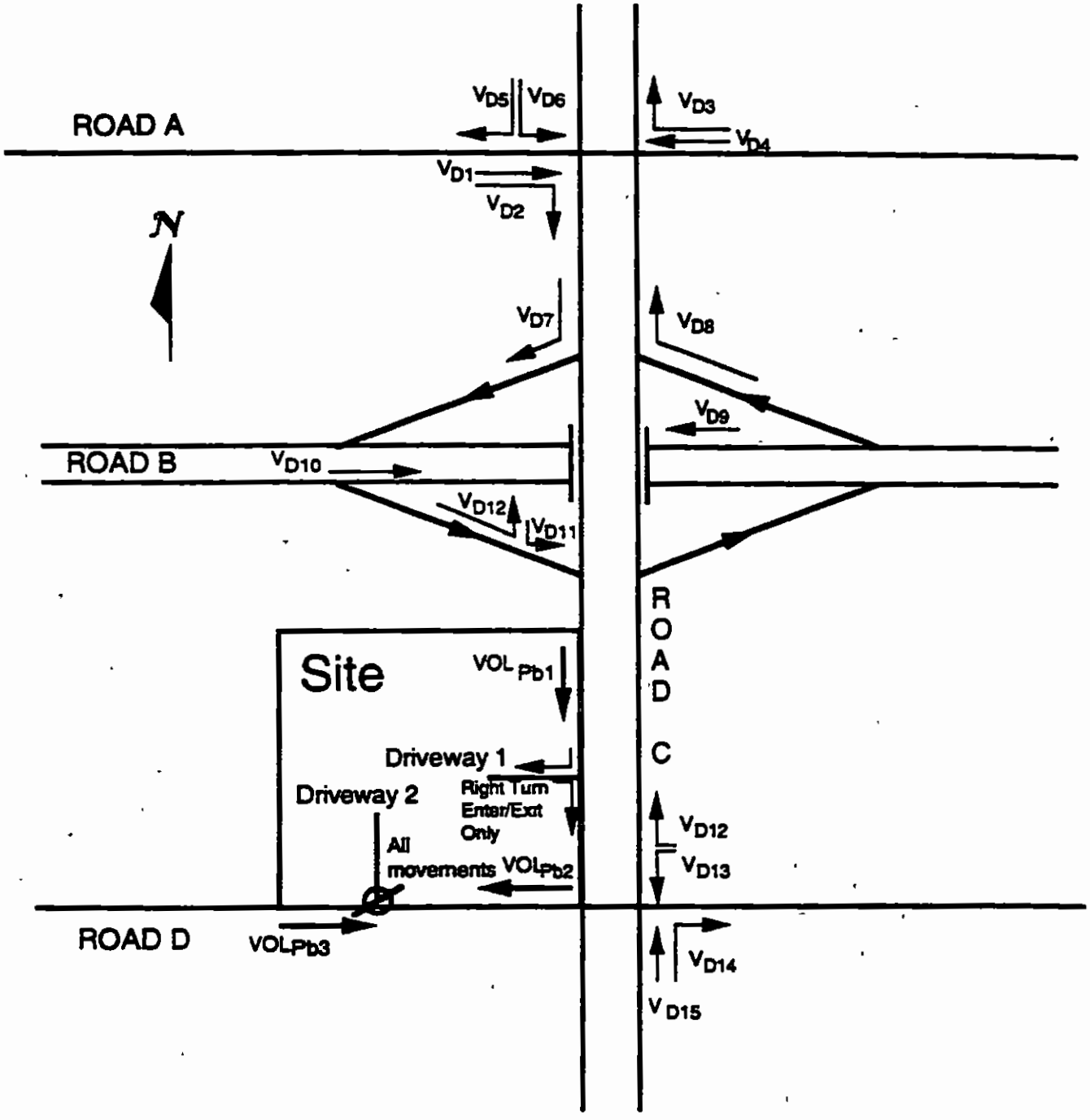
It is essential that this phenomenon be recognized when examining the traffic impact of a development on the street system. The pass-by and diverted linked trip estimation method initiated in previous editions is calculated as a percentage of the total number of trips entering the generator. Statistical correlation of the data collected by the professional community has proven difficult, with resulting low correlation indices. The results of the pass-by trip percentages analyzed to date and presented herein can be enhanced further with an expanded methodology that also accounts for the effects of the magnitude of the passing traffic stream volume on the adjacent road system. Additionally, more detailed data are needed before this estimation methodology can be statistically analyzed and formally adopted. To assist in this regard, the interview survey forms have been expanded to assist the professional community in collecting this data in a standard format for use in future analyses. The fifth edition of *Trip Generation* contains additional theoretical discussion on pass-by and diverted linked trips.

The professional community should continue to use the results of the analyses of pass-by trip percentages tempered with engineering judgment until more data are attained and the methodology produces results with higher correlation to the actual events.

Database on Pass-By Trip and Diverted Linked Trip Percentages

Surveys conducted to date have been limited to interviewing a limited sample of people to determine a pass-by trip and diverted linked trip percentage based on the interviews and relating the percentage to the size of the generator or shopping center. Some recent surveys also provided information on ADT, but not in sufficient detail

Figure VII-1: Identification of Pass-By and Diverted Linked Trip Volumes



Legend

$$V_{Pb\ TOT} = \sum VOL_{Pb1} + VOL_{Pb2} + VOL_{Pb3} \quad (VPH)$$

$$V_{D\ TOT} = \sum VOL_{D1} + VOL_{D2} + VOL_{D.....} + VOL_{D15} \quad (VPH)$$

to identify traffic volume related to true pass-by trips and diverted linked trips. The data available for the land uses presented in this update are contained in the following tables.

Table VII-1	High-Turnover (Sit-Down) Restaurant (832) P.M. Peak Hour
Table VII-2	Fast-Food Restaurant with Drive-Through Window (834) A.M. Peak Hour
Table VII-3	Fast-Food Restaurant with Drive-Through Window (834) P.M. Peak Hour
Table VII-4	Gasoline/Service Station (844) A.M. Peak Hour
Table VII-5	Gasoline/Service Station (844) P.M Peak Hour
Table VII-6	Gasoline/Service Station with Convenience Market (845) A.M. Peak Hour
Table VII-7	Gasoline/Service Station with Convenience Market (845) P.M. Peak Hour
Table VII-8	Convenience Market with Gasoline Pumps (853) A.M. Peak Hour
Table VII-9	Convenience Market with Gasoline Pumps (853) P.M. Peak Hour

Good correlation between the pass-by trip percentage and size of the generator has been illusive. The database needs to be further expanded before better predictive relationships can be developed. Therefore, the user is cautioned to use engineering judgment to establish the pass-by trip and diverted linked trip percentage before application. Whenever possible, and especially at planned expansion to existing facilities, it is recommended that the pass-by trip and diverted linked trip percentages be determined on the basis of site-specific data collected with the expanded forms provided.

Application of Pass-By Trip and Diverted Linked Trip Percentage Results

Until the estimation methodology is further developed, the results of the pass-by trip and diverted linked trip percentages may continue to be applied with caution, as explained herein. The pass-by trips and diverted linked trips estimated to enter and exit a development does not affect the driveway volumes but does affect the amount of traffic added to the adjacent street system. The following example and Figure VII-2 illustrate this point for pass-by trips.

- The p.m. peak hour traffic passing a retail center is 1,200 vehicles per hour, as shown in Figure VII-2(a).
- The driveway volumes are estimated to be 200 vehicles per hour entering and leaving the center as shown in Figure VII-2(b).
- The pass-by trips are estimated to be 25 percent of the driveway volumes, as shown in Figure VII-2(b).
- The trip distribution for the primary trips is shown in Figure VII-2(c).
- The distribution of the pass-by trips is based on the volume of traffic passing the driveway, as shown in Figure VII-2(d).
- The assignment of the pass-by trips is shown in Figure VII-2(f).
- The final assignment of all the trips entering and leaving and passing the driveway is shown in Figure VII-2(g).

Data Needs for Pass-By Trips and Diverted Linked Trips

More data are needed to further quantify the pass-by trips and diverted linked trips for all land uses where this phenomenon exists. It is essential that the data in this report be expanded through the uniform collection of data suggested in the survey forms. Following is a questionnaire to be used for conducting interviews for the purpose of collecting pass-by trip and diverted linked trip data, and a summary form. The summary form is designed to list the summary of survey results, but must also provide information related to the generator, location and traffic volumes associated with both true pass-by trips and diverted linked trips.

Figure VII-2

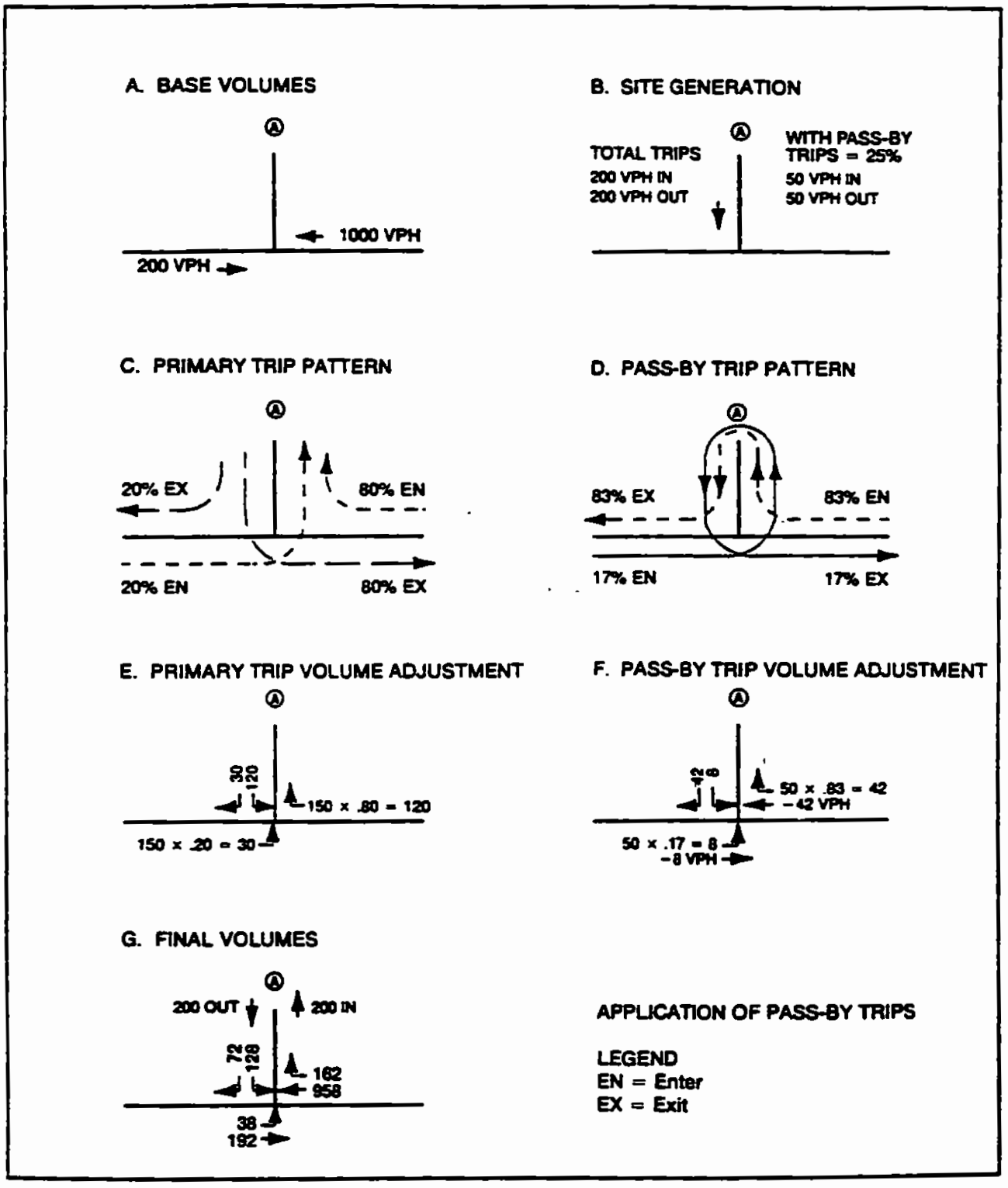
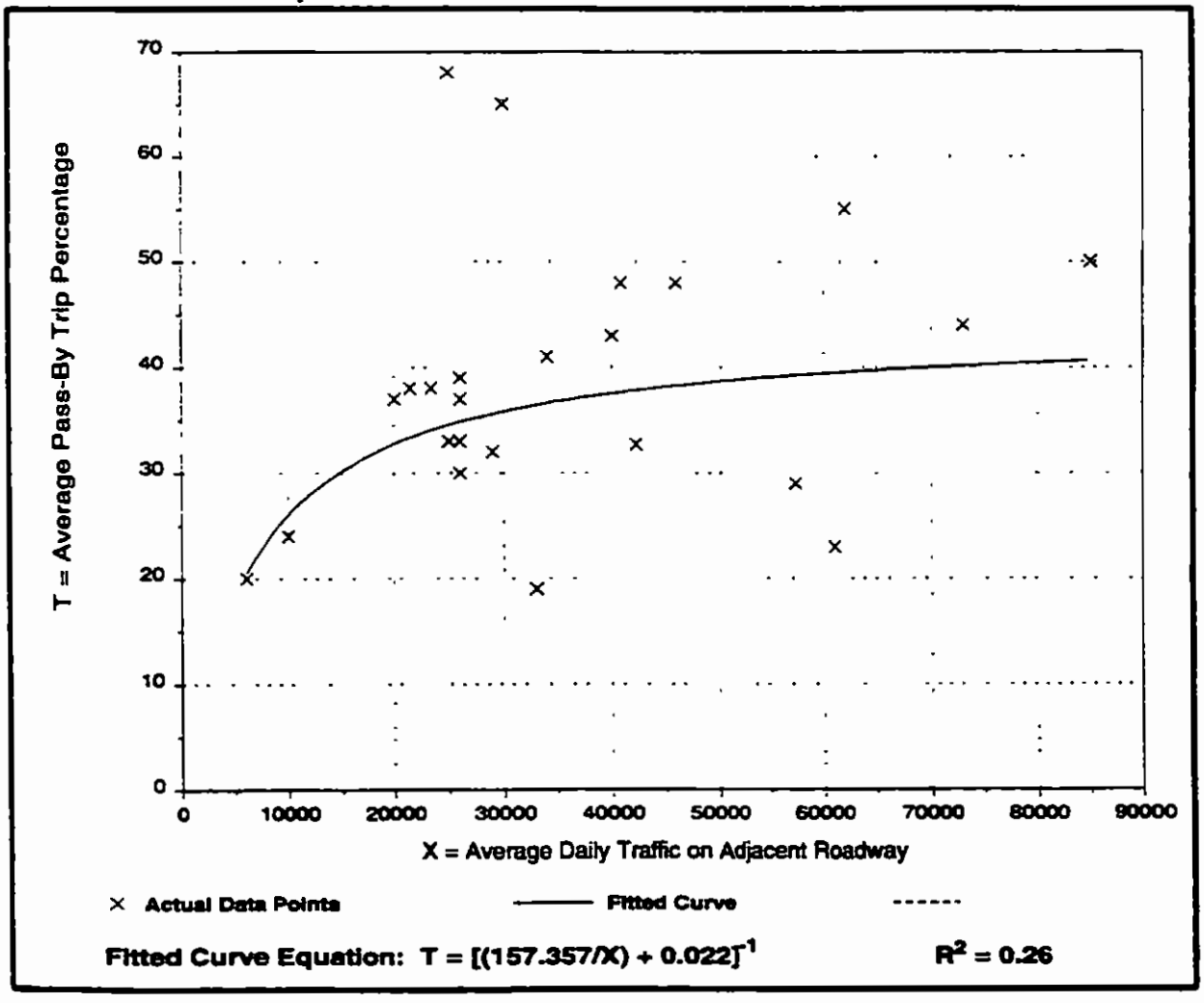

A. BASE VOLUMES
1000 VPH
200 VPH
B. SITE GENERATION
TOTAL TRIPS
200 VPH IN
200 VPH OUT
WITH PASS-BY TRIPS = 25%
50 VPH IN
50 VPH OUT
C. PRIMARY TRIP PATTERN
20% EX
80% EN
20% EN
80% EX
D. PASS-BY TRIP PATTERN
83% EX
83% EN
17% EN
17% EX
E. PRIMARY TRIP VOLUME ADJUSTMENT
30
120
150 x .80 = 120
150 x .20 = 30
F. PASS-BY TRIP VOLUME ADJUSTMENT
50 x .83 = 42
-42 VPH
50 x .17 = 8
-8 VPH
G. FINAL VOLUMES
200 OUT
200 IN
72
128
162
958
38
192
APPLICATION OF PASS-BY TRIPS
LEGEND
EN = Enter
EX = Exit

Figure VII-1B: Shopping Center Pass-By Trips (Weekday, P.M. Peak Hour of Adjacent Street Traffic)

Average Pass-By Trip Percentage vs: Daily Traffic on Adjacent Roadway
On a: Weekday, P.M. Peak Hour of Adjacent Street Traffic

Number of Studies: 24
Average Daily Traffic on Adjacent Roadway: 36,174

Data Plot and Equation



APPENDIX F
AIR QUALITY CALCULATIONS

Giroux & Associates
Environmental Consultants

AIR QUALITY IMPACT ANALYSIS

SADDLEBACK MEADOWS (TT 10692)

ORANGE COUNTY, CALIFORNIA

Prepared for:

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Date:

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METEOROLOGY/CLIMATE

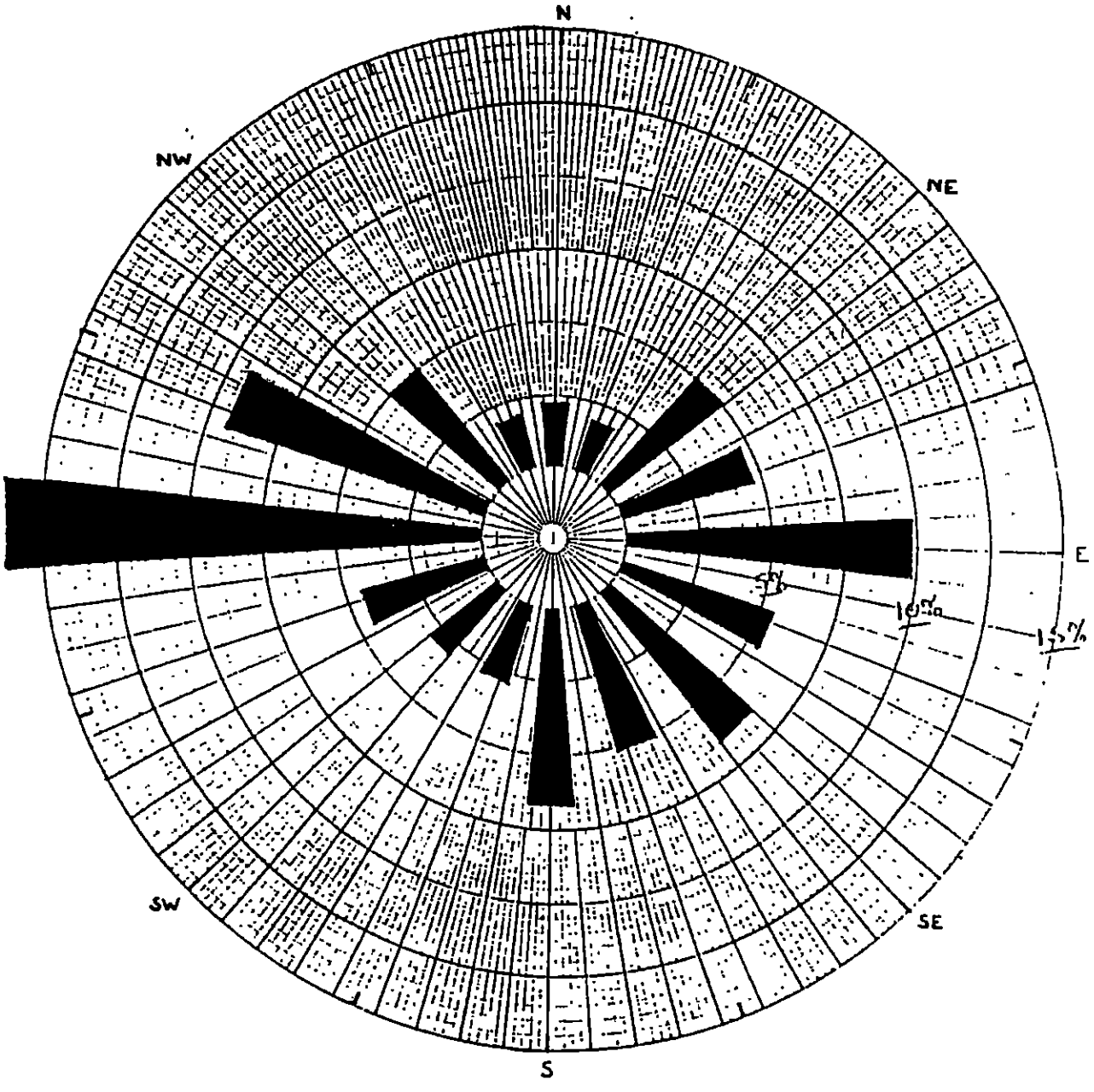
The project site's climate, as with all of Southern California, is dominated by the strength and position of the semi-permanent high pressure center over the Pacific Ocean near Hawaii. It creates cool summers, mild winters, infrequent rainfall, it drives the cool daytime sea breeze, and it maintains comfortable humidities and ample sunshine. Unfortunately, the same atmospheric processes that create the desirable living climate combine to restrict the ability of the atmosphere to disperse the air pollution generated by the large population attracted in part by the comfortable climate. Portions of the Los Angeles Basin therefore experience some of the worst air quality in the nation for certain pollutants.

Temperatures in El Toro average 62°F annually. Daily and seasonal oscillations of temperature are small because of the moderating effects of the nearby oceanic heat reservoir. In contrast to the steady temperature regime, rainfall is highly variable, and confined almost exclusively to the "rainy" period from early November to mid-April. Rainfall in the project area averages around 12 inches annually with January typically the wettest month of the year.

Winds near the project site, based on long-term monitoring from nearby El Toro MCAS, display several characteristic regimes. During the day, especially in summer, winds are from the west at 7-9 miles per hour. At night, especially in winter, the land becomes cooler than the ocean and an offshore wind of 3-5 miles per hour develops. After sunrise, the wind direction rotates through the southeast and south at 5-7 miles per hour until the west wind again becomes dominant in the early afternoon. One other important wind regime occurs when a high pressure center forms over the western United States and creates strong, hot, dry, gusty, Santa Ana winds from the northeast and east across El Toro.

Figure 1 shows the annual average wind direction pattern (frequency of winds <u>from</u> a given direction) in the project vicinity. The dominance of winds from the west is clearly seen. The data in Figure 1 also show a high frequency of winds of less than 3 mph. Such light winds lead to limited local ventilation and resulting in possibly elevated pollution levels near freeways, shopping centers and other traffic concentrations. The Saddleback Meadows project site is, however, sufficiently separated from traffic stagnation conditions as to preclude the formation of any local pollution "hot spots."

The net effect of the area wind pattern is that any locally generated air pollutant emissions will be carried from east to west



AVG. SPEED = 5.5 MPH
WINDS ≤ 3 MPH = 29.4%

EL TORO MCAS WIND ROSE

FIGURE 1

at night, and then reverse from west to east by day. Although the daytime windspeeds are generally stronger and therefore better ventilate the project area, the offshore flow, once well-organized late in the evening and during the night, is also strong enough to minimize any significant localized air stagnation. The least ventilated period is typically during the morning and evening directional transition when winds become near calm until the new flow component becomes fully established.

In addition to winds that govern the horizontal rate and trajectory of any air pollutants, Southern California experiences several characteristic temperature inversions that control the vertical depth through which pollutants can be mixed. The daytime onshore flow of marine air is capped by a massive dome of warm air that acts like a giant lid over the basin. As the clean ocean air moves inland, pollutants are continually added from below without any dilution from above. As this layer slows down in inland valleys of the basin and undergoes photochemical transformations under abundant sunlight, it creates very unhealthful levels of smog (mainly ozone).

A second inversion forms at night as cool air pools in low elevations while the air aloft remains warm. Shallow radiation inversions are formed (especially in winter) that trap pollutants near intensive traffic sources such as freeways, shopping centers, etc., and from localized violations of clean air standards called "hot spots." Although inversions are found during all seasons of the year, the regional capping inversion is far more prevalent in summer while the localized radiation inversions are strongest in winter. The strong seasonal split in inversion intensity thus contributes significantly to the completely different air quality climate found in summer in the project vicinity than in winter. Because traffic concentrations in the project area are low, and because individual cars are becoming progressively "cleaner," air quality concerns in the El Toro area are more centered on the regional, summertime intrusion of photochemical smog (ozone) than on any winter microscale stagnation conditions.

AIR QUALITY SETTING

Ambient Air Quality Standards (AAQS): In order to assess the air quality impact of any proposed new development such as Saddleback Meadows, that impact, together with baseline air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered adequate to protect the public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress or infection, such as asthmatics, the elderly, the very young, people weak from other disease or illness, and persons engaged in heavy work or exercise, called "sensitive receptors". Healthy adults can tolerate periodic exposure to air pollution levels well above these standards before adverse health effects are observed. Recent research has shown, however, that adverse health effects may occur from life-long chronic exposure to ozone concentrations that just meet the hourly standard. Barely meeting clean air standards may, therefore, not be enough to insure public health protection until some additional margin of safety is established to overcome chronic exposure health effects.

The Clean Air Act Amendments of 1970 established national AAQS with states retaining the option to adopt more stringent standards or to include other pollution species. Because California already had standards in existence before federal AAQS were established, and because of unique meteorological problems in California, there is considerable diversity between state and federal standards currently in effect in California as shown in Table 1.

Baseline Air Quality: Existing and probable future levels of air quality in the project area can be best inferred from ambient air quality measurements conducted by the South Coast Air Quality Management District (AQMD) at its El Toro monitoring station. Monitoring at this station include both regional pollutants such as dust and smog, as well as primary vehicular pollution levels such as carbon monoxide. Table 2 summarizes the last seven years of published data from this monitoring station. Although the entire spectrum of air pollutants is not monitored at the El Toro station, the following conclusions can be drawn from this data:

a. Photochemical smog (ozone) levels continue to exceed standards by a wide margin. However, the frequency of first stage smog episodes has ranged from 0-2 per year with a noticeable trend toward fewer episodes within the last several years. First-stage smog episodes have dropped by 90% the last 10-15 years. 1990 was the first year without a first-stage smog alert (one hour $\geq$ 0.20 ppm) since ozone monitoring began at El Toro. There have been no first-stage smog alerts from 1992 to the present.

TABLE 1

Ambient Air Quality Standards

AIR POLLUTANT	STATE STANDARD CONCENTRATION/ AVERAGING TIME	FEDERAL PRIMARY STANDARD CONCENTRATION/ AVERAGING TIME	MOST RELEVANT EFFECTS
Ozone	0.09 ppm, 1-hr. avg. >	0.12 ppm, 1-hr avg.>	(a) Short-term exposures (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures· Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans, (c) Vegetation damage, (d) Property damage
Carbon Monoxide	9 0 ppm, 8-hr avg > 20 ppm, 1-hr avg. >	9 ppm, 8-hr avg > 35 ppm, 1-hr avg.>	(a) Aggravation of angina pectoris and other aspects of coronary heart disease. (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease, (c) Impairment of central nervous system functions. (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.25 ppm, 1-hr avg. >	0 053 ppm, ann. avg >	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0 04 ppm, 24-hr avg.> 0.25 ppm, 1-hr. avg. >	0.03 ppm, ann. avg.> 0.14 ppm, 24-hr avg.>	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM_{10})	30 $\mu g/m^3$, ann. geometric mean > 50 $\mu g/m^3$, 24-hr average>	50 $\mu g/m^3$, annual arithmetic mean > 150$\mu g/m^3$, 24-hr avg.>	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease, (b) Excess seasonal declines in pulmonary function, especially in children
Sulfates	25 $\mu g/m^3$, 24-hr avg. >=		(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage, (e) Degradation of visibility; (f) Property damage
Lead	1.5 $\mu g/m^3$, 30-day avg. >=	1.5 $\mu g/m^3$, calendar quarter>	(a) Increased body burden, (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to reduce the visual range to less than 10 miles at relative humidity less than 70 percent, 8-hour average (10am - 6pm)		Visibility impairment on days when relative humidity is less than 70 percent

TABLE 2

SOUTH ORANGE COUNTY
AIR QUALITY MONITORING SUMMARY (1988-94)
(Number of Days Standards Were Exceeded, and Maximum Levels During Such Violations
Entries shown as ratios = samples exceeding standard/samples taken)

Pollutant/Standard	1989	1990	1991	1992	1993	1994	1995
Ozone:							
1-Hour > 0.09 ppm (a)	30	32	29	31	22	16	15
1-Hour > 0.12 ppm (b)	7	11	10	9	7	5	1
1-Hour ≥ 0.20 ppm (c)	2	0	1	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.23	0.19	0.24	0.16	0.16	0.18	0.15
Carbon Monoxide:							
1-Hour > 20. ppm (a)	0	0	0	0	0	0	0
8-Hour > 9. ppm (a,b)	0	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	9	9	8	10	7	8	6
Max. 8-Hour Conc. (ppm)	5.1	5.6	4.8	7.3	4.1	5.4	4.1
Inhalable Particulates: (PM-10)							
24-Hour > 50 $\mu g/m^3$ (a)	20/60	16/55	9/59	5/60	7/61	7/59	11/60
24-Hour > 150 $\mu g/m^3$ (b)	0/60	0/55	0/59	0/60	0/61	0/59	0/60
Max. 24-Hour Conc. ($\mu g/m^3$)	88.	88.	94.	83.	115.	91.	122.

Source: South Coast Air Quality Management District, El Toro Monitoring Station, El Toro Road @ Jeronimo Road.

(a) = California ambient air quality standard
(b) = National ambient air quality standard
(c) = California first-stage smog episode alert level.

b. Annual maximum ozone levels rose in the early '80s to close to the second stage alert level of 0.35 ppm for 1 hour, but they since dropped sharply to the sub-0.20 ppm level. For several years, El Toro had the worst smog of any station in Orange County. In the last several years, however, El Toro, and by inference all of the South County, had some of the lowest smog readings on record.

c. Measurements of carbon monoxide have shown relatively low baseline levels for a monitoring station located near two busy arterials (El Toro Road and Jeronimo Road). With lower traffic volumes and more complex terrain reducing stagnation potential, CO levels near Saddleback Meadows are probably even lower than the AQMD readings at the El Toro monitoring station.

d. Respirable dust (PM-10) levels periodically exceed the state standard, but the less stringent federal PM-10 standard has never been violated since PM-10 measurements began at El Toro.

Despite substantial South County growth in the last two decades, area air quality, as inferred from the El Toro SCAQMD data, continues to improve.

Lowest number of state ozone violations	(15)	-	1995
Lowest number of federal ozone violations	(1)	-	1995
Lowest one-hour ozone maximum	(0.15 ppm)	-	1995
Lowest one-hour CO maximum	(6 ppm)	-	1995
Lowest 8-hour CO maximum	(4.1 ppm)	-	1993, 95

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment will occur within the reasonably near future.

Air Quality Management Planning: The Federal Clean Air Act (1977 Amendments) stated that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards by December 31, 1987. The South Coast Air Basin (SCAB) could not meet the deadline for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the South Coast Air Basin, the agencies designated by the governor to develop regional air quality plans are the South Coast Air Quality Management District and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it in 1982 to project attainment of the standards in 2000.

In 1988, because of uncertainty in federal Clean Air Act reauthorization, the California Legislature enacted the California Clean Air Act (CCAA). The CCAA requires that regional emissions be reduced by 5 percent per year, averaged over 3 year periods, until attainment can be demonstrated. Each area that did not meet a national or state ambient air quality standard was required to prepare a plan which demonstrated how the 5 percent reductions was to be achieved. The plan was to be locally adopted and submitted to the CARB by June 30, 1991. Areas with the most heavily degraded air quality were required to reduce emissions 50 percent from 1987 levels by December 31, 2000. In July 1991, the SCAQMD adopted a revised AQMP which was designed to meet the CCAA requirements. The 1991 AQMP deferred the attainment date to 2010, consistent with the 1990 federal Clean Air Act.

The 1990 federal Clean Air Act Amendments required that all states with airsheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). The 1991 AQMP was modified/adapted and submitted as the South Coast Air Basin portion of the SIP. The 1991 SIP submittal estimated that an 85% basinwide reduction in volatile organic compound (VOC) emissions and a 59% reduction in oxides of nitrogen (NO_x) between 1990 to 2010 was needed to meet federal clean air standards. About 40% of these reductions were to come from existing pollution control programs. The rest would come from new rules, technologies or other reduction programs.

EPA recently approved the 1994 submittal of the SCAB portion of the SIP. The plan was finally approved after considerable debate on the contingency measures that should be implemented if progress is not as rapid as anticipated in the 1994 SIP. The currently approved plan will not be in effect for long because the federal Clean Air Act required that an updated plan be submitted by February 8, 1997 which includes attainment plans for all pollutants exceeding federal standards. The CCAA requires an update of the state-mandated clean air plan every three years. The next update is due December 31, 1997.

An updated 1997 AQMP has been locally adopted. The California Air Resources Board (ARB) has forwarded this plan on to EPA for its consideration and recommended approval. The 1997 AQMP is designed to meet both federal (EPA) and state (ARB) air quality planning guidelines. Components of the 1997 plan update include:

- Demonstration of attainment for ozone, CO, and PM-10
- Updated emissions inventories (1993 base year) of VOC, NO_x, CO, SO_x and PM-10

- Emissions budgets for future years of the inventoried compounds.

- An updated pollution control strategy

- Contingency measures if the plan as presently proposed fails to meet stated timetables.

Additional research and photochemical computer modeling, as well as improved emissions estimates, now suggest that formerly predicted emissions reductions required to meet standards need not be quite as severe as thought earlier. Table 3 summarizes the currently proposed regional attainment planning for ozone (VOC and NO_x) and for carbon monoxide (CO). Emissions reductions of around 68 percent for VOC, 57 percent for NO_x and 68 percent for CO are anticipated from the currently proposed AQMP update. Within the plan, some measures considered "long-term reductions" require additional technological development whose development schedule is uncertain. There is therefore no clear scientific consensus that the 1997 AQMP update will be able to achieve its mandatory clean air objectives by the end of 2010. For new projects that are developed within the next few years, the 1997 AQMP and its underlying plans for mobility, infrastructure development, population, housing, employment and land use, etc., will, however, be the benchmark by which project consistency with air quality planning objectives will be judged.

A residential development such as the proposed Saddleback Meadows project does not directly relate to the AQMP. Any relationship is indirect via the growth assumptions used in the regional air quality plan. To the degree that project residential growth has been forecast by SCAG in its regional comprehensive plan (RCP), the project creates no regional impacts that have not already been analyzed as part of the RCP adoption process.

TABLE 3

SOUTH COAST AIR BASIN ATTAINMENT PLAN
(Emissions in tons/day)

	VOC*	NOx*	CO**
Current Inventory[a]			
Stationary	491	152	127
On-Road Mobile	647	775	5,908
Off-Road Mobile	138	296	1,538
TOTAL	1,276	1,223	7,573
2010 Forecast[b]			
Stationary	531	98	337
On-Road Mobile	163	360	1,913
Off-Road Mobile	144	269	1,643
TOTAL	838	727	3,893
Short-term Intermediate Reductions	< 221>	< 120>	<1,468>
Long-term Reductions	< 204>	< 77>	< 0>
2010 Remaining[c]	413	530	2,425

(a) 1993 Base Year

(b) With current emissions reduction programs and adopted growth forecasts.

(c) Levels at which all federal air quality standards will be met.

Source: SCAQMD, Draft Final 1997 AQMP (October 1996)

* - summer ozone precursors
** - winter CO "hot spot" precursors

AIR QUALITY IMPACTS

Methodology

The analysis methodology utilized procedures outlined in the SCAQMD 1993 "CEQA Air Quality Handbook" where appropriate. In areas where more site-specific information was available beyond the default values recommended in the handbook, they were used to supplement the AQMD-suggested input parameters.

Vehicular emissions were calculated using the SCAQMD "MAAQI" computer model. Microscale emissions impacts were calculated using one generic run of the CALINE4 computer model adjusted for site-specific traffic volumes, travel speeds and emission data for intersections near Saddleback Meadows potentially affected by project-related traffic.

Standards of Significance

Many air quality impacts from dispersed mobile sources, i.e., the dominant pollution generators in the basin, often occur hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual source is generally immeasurably small. The SCAQMD has therefore developed suggested significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The 1993 SCAQMD Handbook states that any projects in the SCAB with daily emissions that exceed any of the following thresholds should be considered as having an individually and cumulatively significant air quality impact:

55 lbs per day of ROC*

55 lbs per day of NO_x**

550 lbs per day of CO

150 lbs per day of PM-10

150 lbs per day of SO_x

* - 75 lbs/day during construction

** - 100 lbs/day during construction

These thresholds do not take into account several important considerations, namely:

1. Emission levels from one large project may exceed thresholds while those from numerous smaller projects with identical emissions might not, even though the regional impact is the same.

2. Large developments have a greater opportunity to effectively implement TCMs because of a greater potential participant pool in trip/VMT diversion programs.

3. Project-related emissions and their regional impact may already have been incorporated into regional growth projections.

4. Emissions generated in or near El Toro have essentially the same regional air quality impact if they were released in a nearby community. If the anticipated demand for residential use is not met at Saddleback Meadows but in some other community, the no-project alternative will have basically the same regional air quality impact.

These considerations can be used by the Lead Agency as a basis for supporting a finding of a less than significant impact, even if the SCAQMD advisory thresholds are exceeded. Alternately, the Lead Agency may make a finding of a significant impact for projects exceeding the SCAQMD thresholds, but use as many of the above criteria in a statement of overriding considerations as are applicable.

Additional indicators should be used as screening criteria to evaluate the need for further analysis with respect to air quality. Whenever possible, the project should be evaluated in a quantitative analysis; otherwise a qualitative analysis is appropriate. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation;

- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP;

- Project could generate vehicle trips that cause a CO hot spot;

- Project might have the potential to create or be subjected to objectionable odors;

- Project could have hazardous materials on site and could result in an accidental release of air toxic emissions;
- Project could emit an air toxic contaminant regulated by District rules or that is on a federal or state air toxic list;
- Project could involve disposal of hazardous waste;
- Project could be occupied by sensitive receptors near a facility that emits air toxics or near CO hot spots;
- Project could emit carcinogenic air contaminants that could pose a cancer risk.

Project-Related Sources of Potential Impact

Intensification of land uses in Orange County potentially impacts ambient air quality on two scales of motion. As cars drive throughout Southern California, the small incremental contribution to the basin air pollution burden from any single vehicle is added to that from several million other vehicles. The impact from this project, even if it generates a significant number of new vehicle trips, is very small on a regional scale. Basinwide air quality impacts are, therefore, addressed in terms of project compatibility with regional air quality plans. If any given project or plan has been properly incorporated into basinwide growth projections which are the basis for regional air quality/transportation planning, then the basinwide impact of any proposed development is presumed, by definition, to be less than significant.

Locally, changes in the location of any collection of automotive sources, or changes in the number of vehicles or travel speeds may impact the microscale air quality around any given development site. Traffic increases not only contribute air pollutants in direct proportion to their cumulative percentage of traffic volume growth, but they may slow all existing traffic to slower, more inefficient travel speeds. The development traffic/air quality impact is thus potentially compounded.

Temporary construction activity emissions will occur during project buildout. Such emissions include on-site generation of dust and equipment exhaust, and off-site emissions from construction employee commuting and/or trucks delivering building materials. Because of their temporary nature, air quality impacts from construction have often been considered as individually less than significant. Also, construction activity emissions are difficult to quantify, since the exact type and amount of equipment that will be used or the acreage that may be disturbed on any given day in

the future is not known with any reasonable certainty. The emphasis in environmental documents relative to construction activity emission impacts has therefore been to minimize the emissions as fully as possible through comprehensive mitigation even if the precise amount of emissions can not be precisely quantified.

Historical use of agricultural pesticides or herbicides on the project site may have left residues within the soil that may be lofted during site development. Such concern, however, are more common for cultivated fields where DDT or other chlorinated compounds were used than for open rangeland such as the project site.

Construction workers, and to some extent the public at large, could also be exposed to any spores, viruses or other materials in the soil released during site grading. Grading activities are not likely to create any unacceptable health impacts from biological organisms in that organisms such as Valley Fever are not endemic to the El Toro area. Thousands of acres of Orange County have been tilled for many years or graded for new development with minimal evidence of any health impacts from soil-borne pathogens.

Construction Activity Impacts

Dust is normally the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). Because of such variations, regulatory agencies use one universal factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into mid-range average values.

The PM-10 fraction of fugitive dust emissions are predicted to be around 55 pounds per day per acre disturbed in the absence of any dust control measures being applied (AQMD CEQA Handbook, Table 9-2). Mandatory measures required by South Coast AQMD Rule 403 (Fugitive Dust) are generally assumed to reduce this rate by 50%. Average daily PM-10 emissions during site grading and other disturbance are stated in the SCAQMD Handbook to be 26.4 pounds/acre. Best available control measures (BACMs) such as continual soil wetting, use of supplemental binders, early paving, etc. can achieve a substantially higher PM-10 control efficiency. Use of BACMs in dust control from construction is an important component of the 1997 PM-10 regional attainment plan.

The Saddleback Meadows project site totals 223 acres. Some steep slopes will be left in open space, but a very substantial part of the site would be graded to accommodate 705 manufactured homes. Rough grading over a large part of the site would likely occur initially with finish grading completed in response to market demand. The area of simultaneous disturbance on any given day could be 10-20 acres. Use of the SCAQMD "default" PM-10 emission factor of 26.4 pounds per acre per day would predict daily PM-10 emissions during rough grading of 264-528 pounds per day. Such emissions would exceed the daily PM-10 significance threshold of 150 pounds per day by a wide margin.

Recent studies of dust control with BACMs have demonstrated, however, that emissions rates of 10.7 pounds per acre per day are attainable when such measures are applied. A 10-20 acre disturbance area with use of all BACMs would contribute 107-214 pounds per day of PM-10. Use of BACMs plus limiting the daily grading area to approximately 14 acres or less could be used in tandem to keep PM-10 emissions at less than significant levels.

It is possible that impact significance in terms of PM-10 emissions may not be wholly relevant in light of current understanding of health effects from airborne dust exposure. Recent research indicates that only the very tiniest particulates of 2.5 micron in diameter or smaller (called "PM-2.5") dominate health response to particulate inhalation. Mechanical soil abrasion creates very little PM-2.5. Measurements in Orange County have shown that one-third of PM-10 is made up of "crustal material", i.e., dirt. Among the PM-2.5 fraction, less than one percent is soil material. Replacement of the PM-10 standard by one for PM-2.5 would likely change the conclusion regarding health impacts from grading operations.

In addition to the fine particulates that remain suspended in the air semi-indefinitely, soil disturbance during construction may release considerable amounts of larger particles that have short atmospheric residence times. These larger particulates are generally inert silicates that are readily filtered out in the upper respiratory tract. They therefore have no adverse health effects. They may, however, create a soiling nuisance as they settle out on parked cars, landscaping foliage or other horizontal surfaces. Clouds of such dust may also locally impair visibility. Soiling nuisance at St. Michael's Abbey during daytime on-shore flow or in Hidden Hills during early morning drainage winds is therefore a possible concern that further prompts the use of efficient dust control.

It is through these larger particulates that the public is aware of a dust problem in a construction area rather than through PM-10.

Because such large particles are more readily lofted by turbulence during strong winds, extra dust control or cessation of soil disturbance activities is recommended when wind speeds exceed a heavy particulate lofting threshold of around 25 mph.

Construction also entails use of internal combustion engines to power on-road trucks and off-road mobile, semi-mobile and semi-stationary equipment. Such sources are mainly diesel-powered and are poorly regulated in terms of allowable emission levels. Off-road sources are sometimes not well maintained because there is no regulatory mechanism to enforce efficient combustion as there is for on-road sources. The SCAQMD has calculated the total area under construction that would cause the significance thresholds to be exceeded from construction-related equipment combustion emissions. For single family residences, the threshold is 1.3 million sq. feet of gross floor area (SCAQMD Handbook, Table 6-2). For 705 units of manufactured housing, even at 2,000 square feet per unit (triple-wides), total improved footage from simultaneous construction of the entire project will be less than the stated threshold. With the use of a comprehensive dust control program, construction activity air quality impacts in the project vicinity can be maintained at less than significant levels.

Construction activities are concentrated at the construction site, but they also spill over into the adjacent community. Spill-over may be physical spillage, or it may be from off-site congestion effects. Vehicles may track dirt off-site, lane closures may create congestion on public roadways and construction worker vehicles and supply trucks may compete with the general public for sometimes inadequate roadway capacity. Trucks may be left idling near off-site sensitive receptors while waiting to load or unload. Each of these small impacts nevertheless may be cumulatively significant when spread over several years of project area buildout. As with the on-site impacts, a heightened level of impact mitigation will need to be utilized to maintain an overall tolerable level of impact from site activity construction. Housekeeping and construction activity management procedures are identified in the impact mitigation discussion relative to "spill-over" minimization.

Mobile Source Impacts

The bulk of the proposed project's impact will derive from the approximately 7,530 "new" daily trips that will be generated at full site buildout. At a typical trip length of around 9 miles per trip, project implementation would add around 70,000 vehicle miles traveled (VMT) to the basinwide mobile source emissions burden.

The emissions associated with project buildout can be readily calculated using the SCAQMD's MAAQI computer model. Emissions from project-related travel were calculated for a buildout year of 1998 as the earliest likely project completion year. The results of these calculations are summarized in Table 4. The computer output from the emissions model is attached as an appendix to this report.

Mobile source emissions for the three primary exhaust pollutants (ROG, CO and NO_x) exceed the SCAQMD significance threshold by a wide margin. This conclusion is generally consistent with the SCAQMD Handbook ... which, in Table 6-2, states that single family residential projects of 166 units or more may have a significant environmental impact.

Although the SCAQMD Air Quality Handbook states strongly that such emission levels will have a significant impact on the environment, that finding is not necessarily binding. The SCAQMD is only an advisory agency on this project, such that the Lead Agency must evaluate whether there will actually be a measurable degradation of the regional air quality environment resulting from project implementation. While the proposed project would cause the suggested AQMD emissions threshold to be exceeded by a wide margin, several considerations may mitigate against considering the resulting air quality impact as individually significant as follows:

1. Similar emissions would result from development of the same project in an adjacent jurisdiction or elsewhere in Orange County.

2. The project is consistent with growth assumptions that were used for regional emissions forecasts in the AQMP. The AQMP forecasts regional attainment of the federal ozone standard by 2010 as long as the rate of predicted regional growth is not exceeded. The Saddleback Meadows project is only a minute part of predicted Orange County growth.

3. The transportation infrastructure is in place to efficiently service the site with good access to multiple transportation modes.

4. The project is located near the Foothill Corridor that provides good linkage between the Orange County concentrated employment centers and the project site.

The above considerations would allow for the Lead Agency to find that the air quality impact is individually less than significant

TABLE 4

SADDLEBACK MEADOWS DEVELOPMENT
REGIONAL EMISSIONS SUMMARY (pounds/day)

Land Use	CO	ROG	NOx	SOx	PM-10
750 D.U. (Manuf. Housing)	1311.8	107.7	149.0	10.3	15.2
20 KSF Commercial	397.3	34.0	43.1	3.2	5.1
TOTAL	1709.1	141.7	192.1	13.5	20.3
SCAQMD Threshold	550.	55.	55.	150.	150.
Project Share of Threshold	311%	258%	349%	9%	14%

Source: MAAQI Air Quality Model (SCAQMD, 1993) - Output in Appendix.

despite the considerable emissions magnitude. If the emissions total alone were to be judged as sufficient evidence for a finding of significance, then the above considerations should be incorporated into a statement of overriding consideration.

Relative to a finding of (in)significance for the mobile source emissions, traffic from all future growth will contribute significantly to the sub-regional and regional air pollution burden, and, therefore, creates a cumulatively significant air quality impact, regardless of project size. This is a function of growth and the dependence upon the single occupant fossil-fueled vehicle as the primary means of transportation. All growth delays the ultimate attainment of regional clean air standards. This project, within a loose definition of "cumulative projects", would contribute to that impediment to clean air. Regardless of any finding of individual impact significance, the proposed Saddleback Meadows development should be identified as having a cumulatively significant air quality impact.

Because vehicular sources from all combined growth will contribute so substantially to regional emissions total, it correspondingly represents a significant opportunity to reduce that contribution. A reasonable reduction percentage through the implementation of an aggressive transportation system management (TSM) will achieve a measurable reduction when applied to such a large baseline emissions level. The degree of "excess" emissions, however, is so substantial as to preclude reduction to sub-threshold levels through any project-specific mitigation.

Orange County has been extensively involved in trip/VMT reduction programs through the trip reduction ordinances (TRO) and various geographically focused transportation management programs. Several countywide programs that monitor city and county response to AQMP TCMs have shown that the county collectively has exceeded the 1994 trip reduction target of the 1991 AQMP when the county is allocated its fair share of the basinwide reduction target. While progress toward reducing the dependence on the single occupant vehicle (SOV) is slow, continued progress toward higher average vehicle ridership (AVR) is to be expected during the Saddleback Meadows buildout timeframe.

While regional mobile source emissions do not have a very direct impact on local El Toro air quality, the incremental addition of growth-related traffic over a wide area may change microscale air quality distributions. To determine whether future traffic changes will create an adverse air quality impact, a microscale air quality analysis was performed for the traffic analysis grid around the project site. A screening procedure based on the California line source roadway dispersion model CALINE4 was run for a number of

traffic scenarios to evaluate any changes due to changes in patterns of growth anticipated as part of the Saddleback Meadows development.

The model combines the results of the traffic analysis with very restrictive dispersion conditions in order to generate a worst-case impact assessment. Carbon monoxide (CO) was used as an indicator of any "hot spot" potential because CO, unlike regional pollutants such as ozone, is directly related to source activity immediately adjacent to the receptor (a primary, unreacted pollutant impact). Calculations were made for an hourly exposure in the immediate vicinity of 10 roadway intersections where baseline traffic volumes were calculated in the traffic analysis.

The results of the microscale impact analysis are summarized in Table 5. The values in Table 5 must be added to any non-local background CO distribution. If one assumes that the maximum level measured near the El Toro and Jeronimo Roads intersection is the regional background, and that the worst-case, one-hour level of 6 ppm observed in 1995 occurs at the exact same hour as any worst-case project impact, then it would take a local contribution of 14 ppm to threaten the one-hour California CO standard of 20 ppm. Microscale hourly CO levels, both without and with the proposed project are forecast to be below the 14 ppm threshold. The maximum future (2000) microscale CO exposure is predicted to be 12 ppm above background at Portola Parkway and Glenn Ranch Road. With improvements, the local increment reduces to 9 ppm. Even under worst-case ("no improvement") assumptions, the theoretical combination of maximum local impacts (12 ppm) plus the maximum background (6 ppm) remains below the most stringent 20 ppm California 1-hour and/or the 35 ppm federal 1-hour standards.

By the year 2000, project-related CO contributions are seen in Table 5 to range from 0.2 to 3.0 ppm compared to no-project conditions without roadway improvements. Increases exceeding 1 ppm occur at El Toro Road and Ridgeline and along Portola Parkway. The average increase at all intersections is 0.9 ppm compared to the most stringent standard of 20 ppm (4.5 percent average change). There are not now, nor will there be with the project, any microscale air pollution "hot spots" at any project area intersections.

Increased areawide traffic and associated congestion is offset by continued improvements in vehicular CO emissions per average vehicle. Future (2020) CO levels with the proposed project and with anticipated intersection improvements are generally less than in 1997. At no intersection are 2020 "with project" levels greater than in 1997 by more than 1.0 ppm for the "with mitigation" (w/Mit.) scenario. SCAQMD Rule 1303 identifies a CO increment of

TABLE 5

MICROSCALE AIR QUALITY IMPACT ANALYSIS

(Hourly CO concentration [ppm] above non-local background
at edge of each indicated intersection leg).

Intersection	Existing	Existing Plus Project	2000 w/o Project	-2000 with Proj.-		-2020 w/o Proj.-		-2020 with Proj.-	
			No. Imp.	No Imp.	w/Mit.	No Imp.	w/Mit.	No Imp.	w/Mit.
Santiago Cyn./Modjeska Cyn. Road	4.4	5.2	3.7	3.9	3.9	2.6	0.9	2.7	0.9
Santiago Cyn./Ridgeline Road	3.1	4.3	3.5	4.9	1.7	2.5	1.1	2.6	1.1
El Toro Rd./Live Oak Cyn. Road	2.7	2.8	2.3	3.2	3.2	2.1	1.0	2.2	1.0
El Toro Rd./Ridgeline Road	2.0	2.2	1.6	2.4	2.4	1.1	0.5	1.5	0.7
El Toro Rd./Project Entrance	---	2.5	---	2.6	2.6	---	---	1.3	0.6
El Toro Rd./Valley Vista Way	1.6	2.5	1.7	2.5	2.5	1.1	0.6	1.6	0.6
El Toro Rd./Glenn Ranch Road	1.6	1.9	1.9	2.1	2.1	1.8	0.7	1.9	0.8
Saddleback Ranch Rd./Glenn Ranch Rd.	1.0	0.8	1.5	1.7	1.7	1.0	0.9	1.0	1.0
Marguerite Pkwy./El Toro Road	1.6	1.1	1.9	2.1	2.1	1.6	1.3	1.7	1.4
Portola Pkwy./Glenn Ranch Road	2.9	3.1	8.8	11.8	9.0	6.6	3.7	6.7	3.8
Portola Pkwy./Foothill Trans Corr.	2.0	2.2	6.1	6.1	6.1	5.8	2.5	6.4	2.5
Portola Pkwy./El Toro Road	2.7	2.8	5.6	7.4	7.4	5.4	3.0	5.4	3.0

less than 5 percent of the hourly standard of 20 ppm, i.e., 1.0 ppm, to be a de minimis increment requiring no further impact analysis. The findings of the microscale impact assessment are therefore that CO levels under theoretical worst-case conditions do not exceed clean air standards and the Saddleback Meadows traffic will add an insignificant amount to the total CO exposure. Microscale impacts are less than significant.

MITIGATION

Potentially significant impacts were identified during construction from dust (PM-10) generated by surface disturbance and from construction equipment operations. Operational emissions will be in excess of thresholds of significance for regionally significant pollutants as identified by the South Coast AQMD. As a minimum, vehicular emissions from project-related traffic should be identified as having a cumulatively significant air quality impact. A number of mitigations, as related to the project, are already incorporated into rules, regulations or ordinances. They are included in the following list of mitigation measures in that compliance mitigates a potentially adverse impact. They are not discretionary measures, however, which a developer can implement or the County of Orange can additionally require since compliance is already assumed in the impact analysis.

In particular, dust control during construction requires compliance with SCAQMD Rule 403 (rev. 1997). Rule 403 requires the use of best available control measures, requires that visible dirt track-out at construction access be promptly removed, and prohibits visible dust clouds beyond the property boundary. Any discretionary actions would be those measures that go beyond the already established Rule 403 minimum requirements.

The SCAQMD in its CEQA Handbook (1993) has developed a menu of mitigation options for consideration into project planning where applicable or appropriate. Some measures are not considered feasible for the proposed project. Many transportation control measures (TCMs) are already incorporated into actions required by the County of Orange. Mitigation potential, beyond what is already required, is therefore somewhat limited. The following measures are recommended:

Construction Dust

- Contractors will comply with SCAQMD Rule 403. In addition to meeting minimum compliance requirements, the contractor will utilize any additional reasonable and feasible methods of dust control from the measures shown in the list in the SCAQMD Rule 403 Implementation Handbook.

  Responsible Party: Construction Contractor

  Supervising Agency: County of Orange
  South Coast AQMD

- Contractors will implement a high wind dust control program when wind gusts exceed 25 mph as measured by an on-site wind monitor or as reported by weather observers at El Toro MCAS. High wind dust control will entail:

  - Termination of operation of scrapers, graders or dozers on unpaved surfaces until winds subside.

  - Application of water hourly to any unpaved surface with vehicle or equipment operations.

  - Application of water or other dust control material to any previously graded surface if dust emanation is visible from such surface.

- Contractors will utilize measures to prevent dirt from being tracked, washed, blown or otherwise conveyed onto paved roadways, and will wash or sweep the construction access points at El Toro Road on a routine basis on a frequency specified by the County of Orange as well as whenever dirt is visible more than 50 feet from the access point independent of the routine clean-up schedule.

  Responsible Party: Construction Contractor

  Supervising Agency: County of Orange

- Trucks hauling dirt on public roads to and from the site will be covered or will maintain a six inch differential between the maximum height of any hauled material and the top of the haul trailer. Haul truck drivers will water the load prior to leaving the site to prevent soil loss during transport.

  Responsible Party: Construction Contractor

  Supervising Agency: California Highway Patrol

- Construction management procedures required by the County of Orange and other jurisdictions shall be implemented. Contractor personnel responsible for supervision and the appropriate actions to be taken for the following measures shall be identified:

  - Cessation of activities during a Stage-2 smog episode. Call 1-800-242-4022 for the daily forecast.

- Truck routes and schedules for receipt of materials shall be coordinated with County of Orange staff.

- Where feasible, on-road vehicles and off-road equipment shall be turned off and subsequently restarted if the anticipated duration of idling is expected to exceed five (5) minutes.

Responsible Party: Construction Contractor

Supervising Agency: County of Orange

- Graded surfaces used for off-road parking, materials lay-down or awaiting future construction shall be stabilized for dust control as needed. Frequently accessed unpaved areas shall be paved as early as possible to minimize dirt trackout to public rights of way.

Responsible Party: Construction Contractor

Supervising Agency: County of Orange

- Equipment will be maintained in proper tune to prevent visible soot from reducing light transmission through the exhaust stack exit by more than 20 percent for more than three (3) minutes per hour and use low-sulfur fuel as required by SCAQMD regulation.

Responsible Party: Construction Contractor

Supervising Agency: South Coast AQMD

- Lane closures or detour will require coordination with the County of Orange. Flagpersons and appropriate traffic control devices will be used as needed to minimize construction activity interference with off-site traffic.

Responsible Party: Construction Contractor

Supervising Agency: County of Orange EMA
Orange County Sheriff Department

Implementation of the above measures is expected to maintain construction activity air quality impacts at less than significant levels.

Operational Activities:

- Traffic flow at the project access will be maintained at acceptable levels of service through mitigation measures identified in the project traffic study.

  Responsible Party: Project Developer

  Supervising Agency: County of Orange Transportation Planning

- 220v electric power for future use to charge electric-powered vehicles will be made available in homeowner garages.

  Responsible Party: Site Developer

  Supervising Agency: County of Orange EMA

Emissions Reduction Quantification

Emissions calculations and the corresponding ambient air quality impact assessment for project-related construction and Saddleback Meadows operations presumed compliance with SCAQMD rules regarding dust control. The potential for additional emissions reduction beyond the mandatory requirements of existing rules and regulations was evaluated based on Appendix 11 of the SCAQMD Air Quality Handbook which quantifies reduction potential of a variety of project construction and operation emissions control measures.

Table 6 shows the emission reduction estimate for the menu of recommended measures for the proposed project. Dust emissions can be controlled from their 50 percent control assumed for Rule 403 compliance by an additional 50-80 percent of the uncontrolled fraction. The net effective dust control level is therefore 75-90 percent, seen as follows.

Control = 0.50 + (0.50 - 0.80) X (0.50)

= Rule 403 + Add'l. Control X Not Contr.

= 0.50 + (0.25 - 0.40)

= 0.75 - 0.90

Unless the entire project site is under simultaneous massive grading, attaining the optimum level of dust control will maintain dust impacts at less than significant levels.

TABLE 6

MITIGATION EFFECTIVENESS ESTIMATE

	Pollutant Control	
Construction Measures	Particulates	Gaseous
Rule 403 Additional Measures	25-40%	---
High Wind Response Plan	NQ	NQ
Off-Site Dirt Deposition Control	5-10%	---
Covered Trucks or Watered Loads	5%	---
Construction Mgmt. Procedures	---	10%
Surface Stabilization	10-20%	---
Equipment Tune-ups	5%	10%
Traffic Interference Minimization	---	5%
Composite:	50-80%	25%
Operational Measures:		
Congestion Management	5%	5%
Electric Vehicle Access	NQ	NQ
Composite:	5%	5%

--- = minimal reduction

NQ = not quantified. Compliance with regulations already presumed in the impact analysis and generates no new reduction.

Operational emissions reduction from mobile sources of 5 percent of their non-TCM implementation level can not reduce the substantial emission level to less than the SCAQMD advisory level significance thresholds. A number of secondary considerations were identified, however, that would either allow for a finding of an individually less than significant air quality impact. If the impact were judged by the Lead Agency in any CEQA process to be significant, those secondary mitigating factors may become part of any statement of overriding considerations.

Alternatives

Four lesser intensity alternatives have been considered for the project site. Emissions associated with each alternative were presumed directly proportional to the "new" average daily traffic (ADT) generated by each alternative. Table 7 shows that all alternatives except the two lowest intensity single-family residential uses cause the SCAQMD threshold to be exceeded. Any development intensity that causes more than around daily trips is forecast to exceed the NO_x threshold.

Air quality, however, occurs mainly within a regional context. The air quality impact from lesser intensity alternatives may therefore not necessarily be environmentally preferred for the following reasons:

a. The same level of growth is likely to occur at some other Orange County location with similar impacts.

b. Transportation corridor access for goods and services may be less adequate at another location.

c. Development of this site is a natural expansion of already completed developments at Hidden Hills, Portola Hills or Foothill Ranch.

TABLE 7

REGIONAL EMISSIONS FROM PROJECT ALTERNATIVES
(pounds/day)

	ROG	CO	NOx	SOx	PM-10
100 S.F. Detached	22.8	278.7	29.9	2.1	3.2
150 S.F. Detached	34.3	418.1	44.9	3.1	4.8
318 M.F. Attached	42.4	517.5	58.0	4.1	6.0
299 S.F. Detached	68.3	833.4	89.5	6.2	9.6
Proposed Project	141.7	1709.1	192.1	13.5	20.3
SCAQMD Threshold	55.	550.	55.	150.	150.

Underlined entries exceed threshold.

References:

California Air Resources Board, 1989 - 1995; California Air Quality Data, Vols. XXI - XXVII.

California Dept. of Transportation (Caltrans), Air Quality Technical Analysis Notes (AQTAN), 1988.

South Coast AQMD, 1993: CEQA Air Quality Handbook

South Coast AQMD, 1994: Mobile Assessment for Air Quality Impacts (MAAQI Computer Program).

APPENDIX

MAAQI Computer Model Output

Project Year: 2000

----------PROJECT DESCRIPTION----------
PROJECT NAME AND DESCRIPTION: Saddleback Meadows
705 D.U. Manufactured Housing
PROJECT STARTING YEAR: 2000
CITY: EL TORO ZIP CODE:
COUNTY: ORANGE AREA NUMBER: AREA1
L.U., DESCR. AND SIZE: RESIDENTIAL, SINGLE FAMILY, 705 DWELLING UNIT
AVERAGE DAILY TRIPS: 5640 (PER DWELLING UNIT-- 8.00)
NUMBER OF VEHICLES: 2820 TOTAL PROJECT VMT: 44506 miles

-----TRIP PURPOSE DATA:	Home-Other	Home-Shop	Home-Work	
AVERAGE TRIP SPEEDS:	26.4	26.4	26.4	mph
AVERAGE TRIP LENGTHS:	6.3	5.4	10.0	miles
TRIP PERCENTAGES:	45.1	9.2	45.7	percent
VEHICLE MILES TRAVELLED:	15991.8	2793.5	25721.2	miles

VEHICLE DATA DISTRIBUTIONS:	Heavy Duty Vehicles		Passenger Vehicles	
Average Daily Trips	12.9%	725/day	87.1%	4914/day
Number of Vehicles	13.5%	381	86.5%	2438
Vehicle Miles Travelled	12.5%	5563 miles	87.5%	38942 miles

TRIP COLD/HOT STARTS: 100% COLD, 0% HOT

ELECTRICAL SUPPLIER: SCE
CONVERSION FACTOR from PER DWELLING UNIT
to MEGAWATT-HR/DAY is 5626.5/365/1000
and to MILLION CU FT/DAY is 6650.0/30/1,000,000

RUN TYPE: Screening Run DATA CASE: Project Without Mitigation
EMISSIONS (in lbs/day)

VEHICLES--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
Home-Other Trip Running Emissions--					
CO	135.1	48.4	183.5	183.5	0.0%
ROC	8.4	6.2	14.6	14.6	0.0%
NOx	14.9	20.0	34.8	34.8	0.0%
SOx	1.9	1.4	3.2		
PM10-Exhaust	0.2	1.2	1.4	1.4	0.0%
PM10-Tire Wear	3.1	0.8	3.9	3.9	0.0%
LEAD	0.000	0.003	0.003		
Home-Shop Trip Running Emissions--					
CO	23.6	8.5	32.1	32.1	0.0%
ROC	1.5	1.1	2.5	2.5	0.0%
NOx	2.6	3.5	6.1	6.1	0.0%
SOx	0.3	0.2	0.6		
PM10-Exhaust	0.0	0.2	0.2	0.2	0.0%
PM10-Tire Wear	0.5	0.1	0.7	0.7	0.0%
LEAD	0.000	0.001	0.001		
Home-Work Trip Running Emissions--					
CO	217.3	77.9	295.2	295.2	0.0%
ROC	13.5	9.9	23.5	23.5	0.0%
NOx	23.9	32.1	56.0	56.0	0.0%
SOx	3.0	2.2	5.2		
PM10-Exhaust	0.2	1.9	2.2	2.2	0.0%
PM10-Tire Wear	5.0	1.3	6.3	6.3	0.0%
LEAD	0.000	0.005	0.005		
Home-Other Trip Start & Soak Emissions--					
CO Cold Start	334.0	24.6	358.6	358.6	0.0%
ROC Cold Start	17.7	1.8	19.5	19.5	0.0%

NOx Cold Start	10.7	1.5	12.2	12.2	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	3.7	0.4	4.1	4.1	0.0%
Home-Shop Trip Start & Soak Emissions--					
CO Cold Start	68.0	5.0	73.1	73.1	0.0%
ROC Cold Start	3.6	0.4	4.0	4.0	0.0%
NOx Cold Start	2.2	0.3	2.5	2.5	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	0.8	0.1	0.8	0.8	0.0%
Home-Work Trip Start & Soak Emissions--					
CO Cold Start	339.0	25.0	364.0	364.0	0.0%
ROC Cold Start	18.0	1.8	19.8	19.8	0.0%
NOx Cold Start	10.9	1.5	12.4	12.4	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	3.8	0.4	4.2	4.2	0.0%
Other Evaporative Emissions--					
ROC-Diurnal	11.9	2.0	13.8		

TOTAL EMISSIONS SUMMARY

VEHICULAR--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
CO	1117.0	189.5	1306.5	1306.5	0.0%
ROC	82.9	23.9	106.8	106.8	0.0%
NOx	65.2	58.9	124.0	124.0	0.0%
SOx	5.2	3.8	9.0		
PM10	9.0	5.7	14.7	14.7	0.0%
LEAD	0.000	0.009	0.009		

STATIONARY--	ELECT.	GAS	BOTH	MITIGATED	EFFIC.
CO	2.17	3.13	5.30	5.30	0.0%
ROC	0.11	0.83	0.94	0.94	0.0%
NOx	12.50	12.50	25.00	25.00	0.0%
SOx	1.30	0.00	1.30		
PM10	0.43	0.03	0.47	0.47	0.0%

TOTAL--	EMISS.	THRES.	%THRES	MITIGATED	%THRES
CO	1311.8	550.0	239%	1311.8	239%
ROC	107.7	55.0	196%	107.7	196%
NOx	149.0	55.0	271%	149.0	271%
SOx	10.3	150.0	7%		
PM10	15.2	150.0	10%	15.2	10%
LEAD	0.009	N/A	N/A		

----------PROJECT DESCRIPTION----------
PROJECT NAME AND DESCRIPTION: Saddleback Meadows
20 KSF Commercial w/ 30% Pass-By Reduction
PROJECT STARTING YEAR: 2000
CITY: EL TORO ZIP CODE:
COUNTY: ORANGE AREA NUMBER: AREA1
L.U., DESCR. AND SIZE: NON_RESIDENTIAL, SHOPPING CTR. (10-500), 20 1000 SQ.FT.
AVERAGE DAILY TRIPS: 1890 (PER 1000 SQ.FT.-- 94.50)
NUMBER OF VEHICLES: 945 TOTAL PROJECT VMT: 15470 miles

-----TRIP PURPOSE DATA:	Work	Non-Work	
AVERAGE TRIP SPEEDS:	26.4	26.4	mph
AVERAGE TRIP LENGTHS:	11.3	6.1	miles
TRIP PERCENTAGES:	40.0	60.0	percent
VEHICLE MILES TRAVELLED:	8547.9	6922.7	miles

VEHICLE DATA DISTRIBUTIONS:	Heavy Duty Vehicles		Passenger Vehicles	
Average Daily Trips	12.9%	243/day	87.1%	1646/day
Number of Vehicles	13.5%	127	86.5%	817
Vehicle Miles Travelled	12.5%	1933 miles	87.5%	13536 miles

TRIP COLD/HOT STARTS: 80% COLD, 20% HOT

ELECTRICAL SUPPLIER: SCE
CONVERSION FACTOR from PER 1000 SQ.FT.
to MEGAWATT-HR/DAY is 13550.0/365/1000
and to MILLION CU FT/DAY is 4800.0/30/1,000,000

RUN TYPE: Screening Run DATA CASE: Project Without Mitigation
EMISSIONS (in lbs/day)

VEHICLES--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
Work Trip Running Emissions--					
CO	72.2	25.9	98.1	98.1	0.0%
ROC	4.5	3.3	7.8	7.8	0.0%
NOx	7.9	10.7	18.6	18.6	0.0%
SOx	1.0	0.7	1.7		
PM10-Exhaust	0.1	0.6	0.7	0.7	0.0%
PM10-Tire Wear	1.6	0.4	2.1	2.1	0.0%
LEAD	0.000	0.002	0.002		
Non-Work Trip Running Emissions--					
CO	58.5	21.0	79.4	79.4	0.0%
ROC	3.6	2.7	6.3	6.3	0.0%
NOx	6.4	8.7	15.1	15.1	0.0%
SOx	0.8	0.6	1.4		
PM10-Exhaust	0.1	0.5	0.6	0.6	0.0%
PM10-Tire Wear	1.3	0.4	1.7	1.7	0.0%
LEAD	0.000	0.001	0.001		
Work Trip Start & Soak Emissions--					
CO Cold Start	79.5	5.9	85.4	85.4	0.0%
ROC Cold Start	4.2	0.4	4.6	4.6	0.0%
NOx Cold Start	2.6	0.3	2.9	2.9	0.0%
CO Hot Start	2.3	0.2	2.5	2.5	0.0%
ROC Hot Start	0.2	0.0	0.2	0.2	0.0%
NOx Hot Start	0.3	0.0	0.4	0.4	0.0%
ROC Hot Soak	1.1	0.1	1.2	1.2	0.0%
Non-Work Trip Start & Soak Emissions--					
CO Cold Start	119.1	8.8	127.9	127.9	0.0%
ROC Cold Start	6.3	0.6	6.9	6.9	0.0%

NOx Cold Start	3.8	0.5	4.4	4.4	0.0%
CO Hot Start	3.5	0.2	3.7	3.7	0.0%
ROC Hot Start	0.3	0.0	0.4	0.4	0.0%
NOx Hot Start	0.5	0.1	0.5	0.5	0.0%
ROC Hot Soak	1.7	0.2	1.8	1.8	0.0%

Other Evaporative Emissions--

ROC-Diurnal	4.0	0.7	4.6

TOTAL EMISSIONS SUMMARY

VEHICULAR--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
CO	335.1	61.9	397.0	397.0	0.0%
ROC	25.9	8.0	34.0	34.0	0.0%
NOx	21.6	20.3	41.9	41.9	0.0%
SOx	1.8	1.3	3.1		
PM10	3.1	2.0	5.1	5.1	0.0%
LEAD	0.000	0.003	0.003		

STATIONARY--	ELECT.	GAS	BOTH	MITIGATED	EFFIC.
CO	0.15	0.06	0.21	0.21	0.0%
ROC	0.01	0.02	0.02	0.02	0.0%
NOx	0.85	0.38	1.24	1.24	0.0%
SOx	0.09	0.00	0.09		
PM10	0.03	0.00	0.03	0.03	0.0%

TOTAL--	EMISS.	THRES.	%THRES	MITIGATED	%THRES
CO	397.3	550.0	72%	397.3	72%
ROC	34.0	55.0	62%	34.0	62%
NOx	43.1	55.0	78%	43.1	78%
SOx	3.2	150.0	2%		
PM10	5.1	150.0	3%	5.1	3%
LEAD	0.003	N/A	N/A		

```
--------------------PROJECT DESCRIPTION--------------------------
PROJECT NAME AND DESCRIPTION: Saddleback Meadows
  Other Alternatives 150 D.U. Single Family Detached
PROJECT STARTING YEAR: 2000
    CITY: EL TORO                              ZIP CODE:
  COUNTY: ORANGE                             AREA NUMBER: AREA1
L.U., DESCR. AND SIZE: RESIDENTIAL, SINGLE FAMILY, 150 DWELLING UNIT
AVERAGE DAILY TRIPS:       1800 (PER DWELLING UNIT-- 12.00)
NUMBER OF VEHICLES:         900  TOTAL PROJECT VMT: 14204 miles
-----TRIP PURPOSE DATA:     Home-Other      Home-Shop      Home-Work
AVERAGE TRIP SPEEDS:          26.4            26.4           26.4    mph
AVERAGE TRIP LENGTHS:          6.3             5.4           10.0    miles
TRIP PERCENTAGES:             45.1             9.2           45.7    percent
VEHICLE MILES TRAVELLED:    5103.8           891.5         8208.9    miles
VEHICLE DATA DISTRIBUTIONS: Heavy Duty Vehicles   Passenger Vehicles
  Average Daily Trips        12.9%    231/day      87.1%   1568/day
  Number of Vehicles         13.5%    121          86.5%    778
  Vehicle Miles Travelled    12.5%   1775 miles    87.5%  12428 miles
TRIP COLD/HOT STARTS: 100% COLD,    0% HOT

ELECTRICAL SUPPLIER: SCE
CONVERSION FACTOR from PER DWELLING UNIT
     to MEGAWATT-HR/DAY is   5626.5/365/1000
 and to MILLION CU FT/DAY is 6650.0/30/1,000,000

RUN TYPE: Screening Run   DATA CASE: Project Without Mitigation
                          EMISSIONS (in lbs/day)
                          ==========================================
VEHICLES--          PASS.    TRUCK    BOTH     MITIGATED   EFFIC.
                    ------   ------   ------   ---------   ------
Home-Other Trip Running Emissions--
  CO                 43.1     15.5     58.6      58.6        0.0%
  ROC                 2.7      2.0      4.7       4.7        0.0%
  NOx                 4.7      6.4     11.1      11.1        0.0%
  SOx                 0.6      0.4      1.0
  PM10-Exhaust        0.0      0.4      0.4       0.4        0.0%
  PM10-Tire Wear      1.0      0.3      1.3       1.3        0.0%
  LEAD              0.000    0.001    0.001

Home-Shop Trip Running Emissions--
  CO                  7.5      2.7     10.2      10.2        0.0%
  ROC                 0.5      0.3      0.8       0.8        0.0%
  NOx                 0.8      1.1      1.9       1.9        0.0%
  SOx                 0.1      0.1      0.2
  PM10-Exhaust        0.0      0.1      0.1       0.1        0.0%
  PM10-Tire Wear      0.2      0.0      0.2       0.2        0.0%
  LEAD              0.000    0.000    0.000

Home-Work Trip Running Emissions--
  CO                 69.3     24.9     94.2      94.2        0.0%
  ROC                 4.3      3.2      7.5       7.5        0.0%
  NOx                 7.6     10.3     17.9      17.9        0.0%
  SOx                 1.0      0.7      1.7
  PM10-Exhaust        0.1      0.6      0.7       0.7        0.0%
  PM10-Tire Wear      1.6      0.4      2.0       2.0        0.0%
  LEAD              0.000    0.002    0.002

Home-Other Trip Start & Soak Emissions--
  CO  Cold Start    106.6      7.9    114.5     114.5        0.0%
  ROC Cold Start      5.7      0.6      6.2       6.2        0.0%
```

NOx Cold Start	3.4	0.5	3.9	3.9	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	1.2	0.1	1.3	1.3	0.0%
Home-Shop Trip Start & Soak Emissions--					
CO Cold Start	21.7	1.6	23.3	23.3	0.0%
ROC Cold Start	1.2	0.1	1.3	1.3	0.0%
NOx Cold Start	0.7	0.1	0.8	0.8	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	0.2	0.0	0.3	0.3	0.0%
Home-Work Trip Start & Soak Emissions--					
CO Cold Start	108.2	8.0	116.2	116.2	0.0%
ROC Cold Start	5.7	0.6	6.3	6.3	0.0%
NOx Cold Start	3.5	0.5	4.0	4.0	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	1.2	0.1	1.3	1.3	0.0%
Other Evaporative Emissions--					
ROC-Diurnal	3.8	0.6	4.4		

TOTAL EMISSIONS SUMMARY

VEHICULAR--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
CO	356.5	60.5	417.0	417.0	0.0%
ROC	26.4	7.6	34.1	34.1	0.0%
NOx	20.8	18.8	39.6	39.6	0.0%
SOx	1.6	1.2	2.9		
PM10	2.9	1.8	4.7	4.7	0.0%
LEAD	0.000	0.003	0.003		

STATIONARY--	ELECT.	GAS	BOTH	MITIGATED	EFFIC.
CO	0.46	0.67	1.13	1.13	0.0%
ROC	0.02	0.18	0.20	0.20	0.0%
NOx	2.66	2.66	5.32	5.32	0.0%
SOx	0.28	0.00	0.28		
PM10	0.09	0.01	0.10	0.10	0.0%

TOTAL--	EMISS.	THRES.	%THRES	MITIGATED	%THRES
CO	418.1	550.0	76%	418.1	76%
ROC	34.3	55.0	62%	34.3	62%
NOx	44.9	55.0	82%	44.9	82%
SOx	3.1	150.0	2%		
PM10	4.8	150.0	3%	4.8	3%
LEAD	0.003	N/A	N/A		

```
--------------------PROJECT DESCRIPTION--------------------------
PROJECT NAME AND DESCRIPTION: Saddleback Meadows
  Other Alternatives 100 D.U. Single Family Detached
PROJECT STARTING YEAR: 2000
    CITY: EL TORO                              ZIP CODE:
  COUNTY: ORANGE                             AREA NUMBER: AREA1
L.U., DESCR. AND SIZE: RESIDENTIAL, SINGLE FAMILY, 100 DWELLING UNIT
AVERAGE DAILY TRIPS:       1200 (PER DWELLING UNIT-- 12.00)
NUMBER OF VEHICLES:         600  TOTAL PROJECT VMT: 9469 miles
-----TRIP PURPOSE DATA:     Home-Other      Home-Shop      Home-Work
AVERAGE TRIP SPEEDS:           26.4            26.4           26.4   mph
AVERAGE TRIP LENGTHS:           6.3             5.4           10.0   miles
TRIP PERCENTAGES:              45.1             9.2           45.7   percent
VEHICLE MILES TRAVELLED:     3402.5           594.4         5472.6   miles
VEHICLE DATA DISTRIBUTIONS:  Heavy Duty Vehicles   Passenger Vehicles
  Average Daily Trips         12.9%    154/day      87.1%   1045/day
  Number of Vehicles          13.5%     81          86.5%    518
  Vehicle Miles Travelled     12.5%   1183 miles    87.5%   8285 miles
TRIP COLD/HOT STARTS: 100% COLD,    0% HOT

ELECTRICAL SUPPLIER: SCE
CONVERSION FACTOR from PER DWELLING UNIT
     to MEGAWATT-HR/DAY is   5626.5/365/1000
 and to MILLION CU FT/DAY is 6650.0/30/1,000,000

RUN TYPE: Screening Run   DATA CASE: Project Without Mitigation
                          EMISSIONS (in lbs/day)
```

VEHICLES--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
Home-Other Trip Running Emissions--					
CO	28.7	10.3	39.0	39.0	0.0%
ROC	1.8	1.3	3.1	3.1	0.0%
NOx	3.2	4.3	7.4	7.4	0.0%
SOx	0.4	0.3	0.7		
PM10-Exhaust	0.0	0.3	0.3	0.3	0.0%
PM10-Tire Wear	0.7	0.2	0.8	0.8	0.0%
LEAD	0.000	0.001	0.001		
Home-Shop Trip Running Emissions--					
CO	5.0	1.8	6.8	6.8	0.0%
ROC	0.3	0.2	0.5	0.5	0.0%
NOx	0.6	0.7	1.3	1.3	0.0%
SOx	0.1	0.1	0.1		
PM10-Exhaust	0.0	0.0	0.1	0.1	0.0%
PM10-Tire Wear	0.1	0.0	0.1	0.1	0.0%
LEAD	0.000	0.000	0.000		
Home-Work Trip Running Emissions--					
CO	46.2	16.6	62.8	62.8	0.0%
ROC	2.9	2.1	5.0	5.0	0.0%
NOx	5.1	6.8	11.9	11.9	0.0%
SOx	0.6	0.5	1.1		
PM10-Exhaust	0.1	0.4	0.5	0.5	0.0%
PM10-Tire Wear	1.1	0.3	1.3	1.3	0.0%
LEAD	0.000	0.001	0.001		
Home-Other Trip Start & Soak Emissions--					
CO Cold Start	71.1	5.2	76.3	76.3	0.0%
ROC Cold Start	3.8	0.4	4.1	4.1	0.0%

NOx Cold Start	2.3	0.3	2.6	2.6	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	0.8	0.1	0.9	0.9	0.0%
Home-Shop Trip Start & Soak Emissions--					
CO Cold Start	14.5	1.1	15.5	15.5	0.0%
ROC Cold Start	0.8	0.1	0.8	0.8	0.0%
NOx Cold Start	0.5	0.1	0.5	0.5	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	0.2	0.0	0.2	0.2	0.0%
Home-Work Trip Start & Soak Emissions--					
CO Cold Start	72.1	5.3	77.4	77.4	0.0%
ROC Cold Start	3.8	0.4	4.2	4.2	0.0%
NOx Cold Start	2.3	0.3	2.6	2.6	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	0.8	0.1	0.9	0.9	0.0%
Other Evaporative Emissions--					
ROC-Diurnal	2.5	0.4	2.9		

TOTAL EMISSIONS SUMMARY

VEHICULAR--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
CO	237.7	40.3	278.0	278.0	0.0%
ROC	17.6	5.1	22.7	22.7	0.0%
NOx	13.9	12.5	26.4	26.4	0.0%
SOx	1.1	0.8	1.9		
PM10	1.9	1.2	3.1	3.1	0.0%
LEAD	0.000	0.002	0.002		

STATIONARY--	ELECT.	GAS	BOTH	MITIGATED	EFFIC.
CO	0.31	0.44	0.75	0.75	0.0%
ROC	0.02	0.12	0.13	0.13	0.0%
NOx	1.77	1.77	3.55	3.55	0.0%
SOx	0.18	0.00	0.18		
PM10	0.06	0.00	0.07	0.07	0.0%

TOTAL--	EMISS.	THRES.	%THRES	MITIGATED	%THRES
CO	278.7	550.0	51%	278.7	51%
ROC	22.8	55.0	42%	22.8	42%
NOx	29.9	55.0	54%	29.9	54%
SOx	2.1	150.0	1%		
PM10	3.2	150.0	2%	3.2	2%
LEAD	0.002	N/A	N/A		

```
--------------------PROJECT DESCRIPTION--------------------------
PROJECT NAME AND DESCRIPTION: Saddleback Meadows
  Other Alternatives 318 Multi-Family Attached
PROJECT STARTING YEAR: 2000
    CITY: EL TORO                              ZIP CODE:
  COUNTY: ORANGE                             AREA NUMBER: AREA1
L.U., DESCR. AND SIZE: RESIDENTIAL, APARTMENT, LOW-RISE, 318 DWELLING UNIT
AVERAGE DAILY TRIPS:        2226 (PER DWELLING UNIT-- 7.00)
NUMBER OF VEHICLES:         1113  TOTAL PROJECT VMT: 17565 miles
-----TRIP PURPOSE DATA:      Home-Other      Home-Shop      Home-Work
AVERAGE TRIP SPEEDS:            26.4            26.4           26.4   mph
AVERAGE TRIP LENGTHS:            6.3             5.4           10.0   miles
TRIP PERCENTAGES:               45.1             9.2           45.7   percent
VEHICLE MILES TRAVELLED:      6311.7          1102.5         10151.7   miles
VEHICLE DATA DISTRIBUTIONS:  Heavy Duty Vehicles   Passenger Vehicles
  Average Daily Trips          12.9%    286/day      87.1%   1939/day
  Number of Vehicles           13.5%    150          86.5%    962
  Vehicle Miles Travelled      12.5%   2195 miles    87.5%  15369 miles
TRIP COLD/HOT STARTS: 100% COLD,    0% HOT

ELECTRICAL SUPPLIER: SCE
CONVERSION FACTOR from PER DWELLING UNIT
     to MEGAWATT-HR/DAY is   5626.5/365/1000
 and to MILLION CU FT/DAY is 4011.5/30/1,000,000

RUN TYPE: Screening Run   DATA CASE: Project Without Mitigation
                          EMISSIONS (in lbs/day)
```

VEHICLES--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
Home-Other Trip Running Emissions--					
CO	53.3	19.1	72.4	72.4	0.0%
ROC	3.3	2.4	5.8	5.8	0.0%
NOx	5.9	7.9	13.7	13.7	0.0%
SOx	0.7	0.5	1.3		
PM10-Exhaust	0.1	0.5	0.5	0.5	0.0%
PM10-Tire Wear	1.2	0.3	1.5	1.5	0.0%
LEAD	0.000	0.001	0.001		
Home-Shop Trip Running Emissions--					
CO	9.3	3.3	12.7	12.7	0.0%
ROC	0.6	0.4	1.0	1.0	0.0%
NOx	1.0	1.4	2.4	2.4	0.0%
SOx	0.1	0.1	0.2		
PM10-Exhaust	0.0	0.1	0.1	0.1	0.0%
PM10-Tire Wear	0.2	0.1	0.3	0.3	0.0%
LEAD	0.000	0.000	0.000		
Home-Work Trip Running Emissions--					
CO	85.8	30.8	116.5	116.5	0.0%
ROC	5.3	3.9	9.3	9.3	0.0%
NOx	9.4	12.7	22.1	22.1	0.0%
SOx	1.2	0.9	2.0		
PM10-Exhaust	0.1	0.8	0.9	0.9	0.0%
PM10-Tire Wear	2.0	0.5	2.5	2.5	0.0%
LEAD	0.000	0.002	0.002		
Home-Other Trip Start & Soak Emissions--					
CO Cold Start	131.8	9.7	141.6	141.6	0.0%
ROC Cold Start	7.0	0.7	7.7	7.7	0.0%

NOx Cold Start	4.2	0.6	4.8	4.8	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	1.5	0.2	1.6	1.6	0.0%
Home-Shop Trip Start & Soak Emissions--					
CO Cold Start	26.9	2.0	28.8	28.8	0.0%
ROC Cold Start	1.4	0.1	1.6	1.6	0.0%
NOx Cold Start	0.9	0.1	1.0	1.0	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	0.3	0.0	0.3	0.3	0.0%
Home-Work Trip Start & Soak Emissions--					
CO Cold Start	133.8	9.9	143.7	143.7	0.0%
ROC Cold Start	7.1	0.7	7.8	7.8	0.0%
NOx Cold Start	4.3	0.6	4.9	4.9	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	1.5	0.2	1.6	1.6	0.0%
Other Evaporative Emissions--					
ROC-Diurnal	4.7	0.8	5.5		

TOTAL EMISSIONS SUMMARY

VEHICULAR--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
CO	440.9	74.8	515.6	515.6	0.0%
ROC	32.7	9.4	42.1	42.1	0.0%
NOx	25.7	23.2	49.0	49.0	0.0%
SOx	2.0	1.5	3.5		
PM10	3.6	2.3	5.8	5.8	0.0%
LEAD	0.000	0.003	0.003		

STATIONARY--	ELECT.	GAS	BOTH	MITIGATED	EFFIC.
CO	0.98	0.85	1.83	1.83	0.0%
ROC	0.05	0.23	0.27	0.27	0.0%
NOx	5.64	3.40	9.04	9.04	0.0%
SOx	0.59	0.00	0.59		
PM10	0.20	0.01	0.20	0.20	0.0%

TOTAL--	EMISS.	THRES.	%THRES	MITIGATED	%THRES
CO	517.5	550.0	94%	517.5	94%
ROC	42.4	55.0	77%	42.4	77%
NOx	58.0	55.0	105%	58.0	105%
SOx	4.1	150.0	3%		
PM10	6.0	150.0	4%	6.0	4%
LEAD	0.003	N/A	N/A		

```
--------------------PROJECT DESCRIPTION--------------------------
PROJECT NAME AND DESCRIPTION: Saddleback Meadows
  Other Alternatives 299 D.U. Single Family Detached
PROJECT STARTING YEAR: 2000
    CITY: EL TORO                              ZIP CODE:
  COUNTY: ORANGE                             AREA NUMBER: AREA1
L.U., DESCR. AND SIZE: RESIDENTIAL, SINGLE FAMILY, 299 DWELLING UNIT
AVERAGE DAILY TRIPS:       3588 (PER DWELLING UNIT-- 12.00)
NUMBER OF VEHICLES:        1794  TOTAL PROJECT VMT: 28313 miles
-----TRIP PURPOSE DATA:     Home-Other      Home-Shop      Home-Work
AVERAGE TRIP SPEEDS:          26.4            26.4           26.4    mph
AVERAGE TRIP LENGTHS:          6.3             5.4           10.0    miles
TRIP PERCENTAGES:             45.1             9.2           45.7    percent
VEHICLE MILES TRAVELLED:   10173.5          1777.1         16363.1    miles
VEHICLE DATA DISTRIBUTIONS:  Heavy Duty Vehicles   Passenger Vehicles
  Average Daily Trips         12.9%    461/day       87.1%   3126/day
  Number of Vehicles          13.5%    242           86.5%   1551
  Vehicle Miles Travelled     12.5%   3539 miles     87.5%  24773 miles
TRIP COLD/HOT STARTS: 100% COLD,    0% HOT

ELECTRICAL SUPPLIER: SCE
CONVERSION FACTOR from PER DWELLING UNIT
     to MEGAWATT-HR/DAY is   5626.5/365/1000
 and to MILLION CU FT/DAY is 6650.0/30/1,000,000

RUN TYPE: Screening Run   DATA CASE: Project Without Mitigation
                          EMISSIONS (in lbs/day)
```

VEHICLES--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
Home-Other Trip Running Emissions--					
CO	85.9	30.8	116.8	116.8	0.0%
ROC	5.4	3.9	9.3	9.3	0.0%
NOx	9.4	12.7	22.2	22.2	0.0%
SOx	1.2	0.9	2.0		
PM10-Exhaust	0.1	0.8	0.9	0.9	0.0%
PM10-Tire Wear	2.0	0.5	2.5	2.5	0.0%
LEAD	0.000	0.002	0.002		
Home-Shop Trip Running Emissions--					
CO	15.0	5.4	20.4	20.4	0.0%
ROC	0.9	0.7	1.6	1.6	0.0%
NOx	1.7	2.2	3.9	3.9	0.0%
SOx	0.2	0.2	0.4		
PM10-Exhaust	0.0	0.1	0.2	0.2	0.0%
PM10-Tire Wear	0.3	0.1	0.4	0.4	0.0%
LEAD	0.000	0.000	0.000		
Home-Work Trip Running Emissions--					
CO	138.2	49.6	187.8	187.8	0.0%
ROC	8.6	6.3	14.9	14.9	0.0%
NOx	15.2	20.5	35.6	35.6	0.0%
SOx	1.9	1.4	3.3		
PM10-Exhaust	0.2	1.2	1.4	1.4	0.0%
PM10-Tire Wear	3.2	0.9	4.0	4.0	0.0%
LEAD	0.000	0.003	0.003		
Home-Other Trip Start & Soak Emissions--					
CO Cold Start	212.5	15.7	228.2	228.2	0.0%
ROC Cold Start	11.3	1.1	12.4	12.4	0.0%

NOx Cold Start	6.8	0.9	7.8	7.8	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	2.4	0.2	2.6	2.6	0.0%
Home-Shop Trip Start & Soak Emissions--					
CO Cold Start	43.3	3.2	46.5	46.5	0.0%
ROC Cold Start	2.3	0.2	2.5	2.5	0.0%
NOx Cold Start	1.4	0.2	1.6	1.6	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	0.5	0.1	0.5	0.5	0.0%
Home-Work Trip Start & Soak Emissions--					
CO Cold Start	215.7	15.9	231.6	231.6	0.0%
ROC Cold Start	11.4	1.1	12.6	12.6	0.0%
NOx Cold Start	6.9	0.9	7.9	7.9	0.0%
CO Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Start	0.0	0.0	0.0	0.0	0.0%
NOx Hot Start	0.0	0.0	0.0	0.0	0.0%
ROC Hot Soak	2.4	0.3	2.6	2.6	0.0%
Other Evaporative Emissions--					
ROC-Diurnal	7.6	1.2	8.8		

TOTAL EMISSIONS SUMMARY

VEHICULAR--	PASS.	TRUCK	BOTH	MITIGATED	EFFIC.
CO	710.6	120.5	831.1	831.1	0.0%
ROC	52.7	15.2	67.9	67.9	0.0%
NOx	41.5	37.5	78.9	78.9	0.0%
SOx	3.3	2.4	5.7		
PM10	5.7	3.6	9.4	9.4	0.0%
LEAD	0.000	0.005	0.005		

STATIONARY--	ELECT.	GAS	BOTH	MITIGATED	EFFIC.
CO	0.92	1.33	2.25	2.25	0.0%
ROC	0.05	0.35	0.40	0.40	0.0%
NOx	5.30	5.30	10.60	10.60	0.0%
SOx	0.55	0.00	0.55		
PM10	0.18	0.01	0.20	0.20	0.0%

TOTAL--	EMISS.	THRES.	%THRES	MITIGATED	%THRES
CO	833.4	550.0	152%	833.4	152%
ROC	68.3	55.0	124%	68.3	124%
NOx	89.5	55.0	163%	89.5	163%
SOx	6.2	150.0	4%		
PM10	9.6	150.0	6%	9.6	6%
LEAD	0.005	N/A	N/A		

APPENDIX G
NOISE CALCULATIONS

Giroux & Associates
Environmental Consultants

NOISE IMPACT ANALYSIS

SADDLEBACK MEADOWS (TT 10692)

ORANGE COUNTY, CALIFORNIA

Prepared for:

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Date:

June 13, 1997

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NOISE SETTING

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally described as unwanted sound. Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Several rating scales have been developed for the analysis of adverse effects of community noise on human beings. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. Upon this premise, a number of noise scales have been developed including the Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL).

LEQ is the sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. LEQ is the "energy" average noise level. CNEL is similar to LEQ but is based on a 24 hour period, and applies a time-weighting factor that places greater significance on noise events occurring during the evening and night hours (when sleep disturbance is a concern). "Time-weighted" refers to the fact that noise occurring during certain sensitive time periods is penalized for occurring at these times. The evening period (7 p.m. to 10 p.m.) penalizes noises by 5 dB, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dB. The CNEL scale is specified by the County of Orange for community noise analysis.

An interior CNEL of 45 dB(A) has been required by the State noise insulation standards (Title 24 of the California Code of Regulations) for all multiple family dwelling units and hotel/motel rooms since 1974. In 1988, the State Building Standards Commission expanded that standard to include all habitable rooms, including single family or low density residential uses. All development in close proximity to automotive traffic, rail or industrial noise sources with baseline levels exceeding 60 dB CNEL must undergo an analysis to verify that the 45 dB interior standard is attainable.

Exterior to interior noise attenuation is typically 20 dB for all windows closed. A 65 dB CNEL exterior noise exposure thus generally allows the 45 dB CNEL interior standard to be met as long as windows can normally be closed to shut out the noise. A level of 65 dB is also the threshold where noise begins to intrude

significantly into normal activities such as having a conversation. Although people may express annoyance if traffic noise levels in usable exterior space such as yards, patios, porches, etc. are below 65 dB, the percentage of "highly annoyed" people increases dramatically when noise exceeds 65 dB.

Noise/land use compatibility standards for various classes of land uses are generally expressed in the Noise Element of the General Plan to insure that noise exposure is considered in any development decisions. Local noise suitability criteria are based on state model guidelines shown in Figure 1.

Figure 1 contains four classes of acceptability and has a number of overlapping compatibility noise levels within several criteria. In order to reduce the potential ambiguity of various conditional acceptabilities, Orange County developed a more clear-cut matrix of acceptable noise levels shown in Table 1 and explained in Table 2.

Noise standards for residential projects such as Saddleback Meadows are as follows:

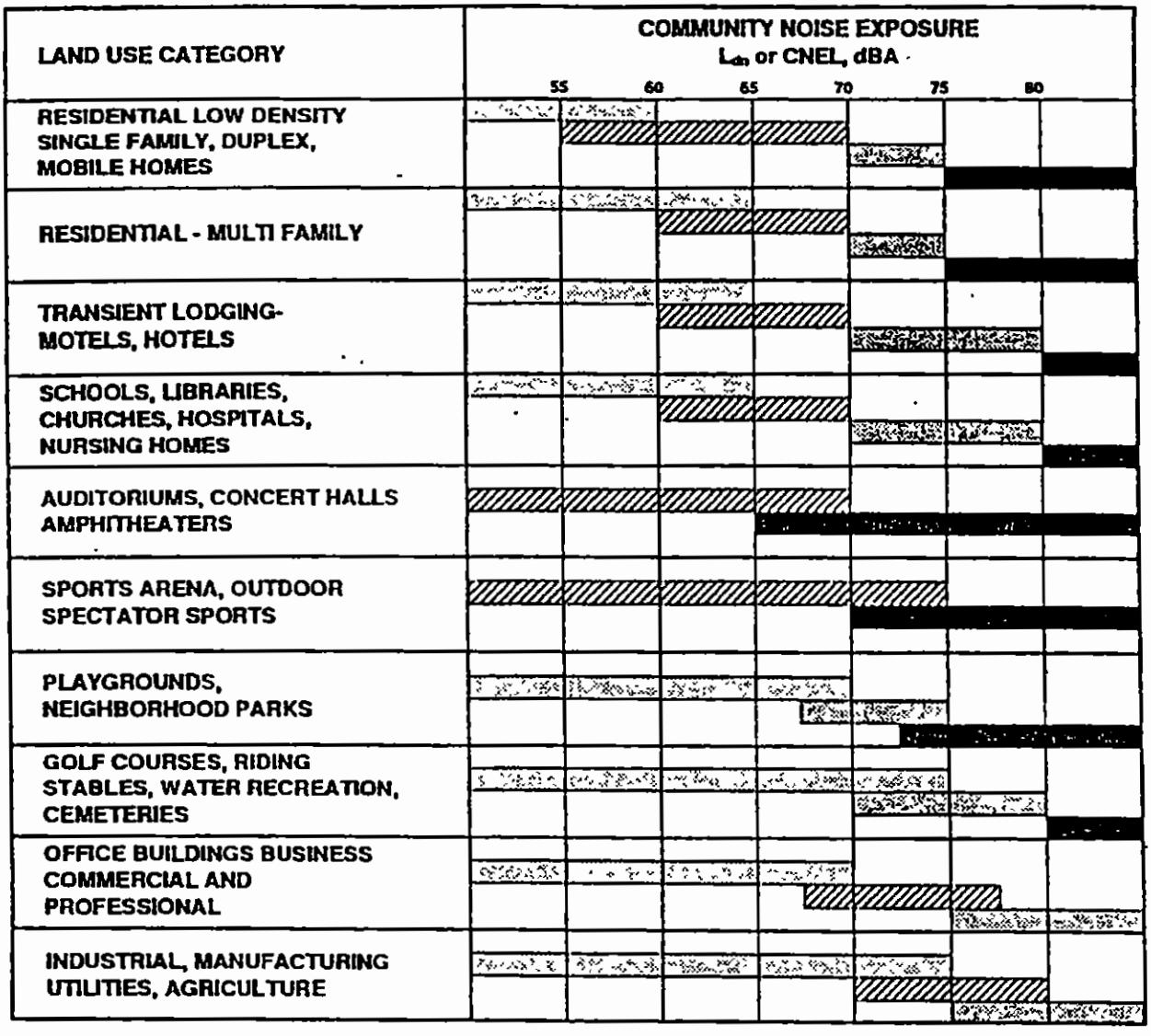
Exterior Level	Requirement
<60 dB CNEL	None
60-65 dB CNEL	Indoor Level <45 dB CNEL
>65 dB CNEL	Outdoor Level Mitigated to <65 dB CNEL Indoor Level <45 dB CNEL

Baseline Noise Levels

Existing noise levels on the project site are normally low except in close proximity to El Toro Road. Periods of quiet are interspersed with occasionally noisy periods of aircraft overflights. The project site also is near a flight corridor for military helicopter training operations in Santiago, Black Star and other interior canyons.

The project site is located near one of the primary landing/ takeoff routes from El Toro MCAS. Aircraft above the site, however, are sufficiently high such that the noise exposure is only marginally degraded. Figure 2 shows that the site is traversed by the 60 CNEL contour in the El Toro noise footprint shown in the Orange County Noise Element as determined in the 1981 El Toro MCAS Air Installation Compatible Use Zone (AICUZ) study. The 60 dB

FIGURE 1 – NOISE/LAND USE COMPATIBILITY STANDARDS



INTERPRETATION

NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

Source: Office of Noise Control, California Dept. of Health, Feb. 1976.

TABLE 1

COMPATIBILITY MATRIX FOR ORANGE COUNTY LAND USES AND COMMUNITY NOISE EQUIVALENT LEVELS (CNEL)

Type of Use	65+ dB CNEL	60-65 dB CNEL
Residential	3a, b, e	2a, e
Commercial	2c	2c
Employment	2c	2c
Open Space		
Local	2c	2c
Community	2c	2c
Regional	2c	2c
Educational Facilities		
School (K through 12)	2c, d, e	2c, d, e
Preschool, college, other	2c, d, e	2c, d, e
Places of Worship	2c, d, e	2c, d, e
Hospitals		
General	2a, c, d, e	2a, c, d, e
Convalescent	2a, c, d, e	2a, c, d, e
Group Quarters	1a, b, c, e	2a, c, e
Hotels/Motels	2a, c	2a, c
Accessory Uses		
Executive Apartments	1a, b, e	2a, e
Caretakers	1a, b, c, e	2a, c, e

TABLE 2

EXPLANATION AND DEFINITIONS ON TABLE 1

Action Required to Ensure Compatibility Between Land Use and Noise from External Sources

1. Allowed if interior and exterior community noise levels can be mitigated.

2. Allowed if interior levels can be mitigated.

3. New residential uses are prohibited in areas within the 65-decibel CNEL contour from any airport or air station; allowed in other areas if interior and exterior community noise levels can be mitigated. The prohibition against new residential development excludes limited "in-fill" development within an established neighborhood.

Standards Required for Compatibility of Land Use and Noise

a. Interior Standard: CNEL of less than 45-decibels (habitable rooms only)

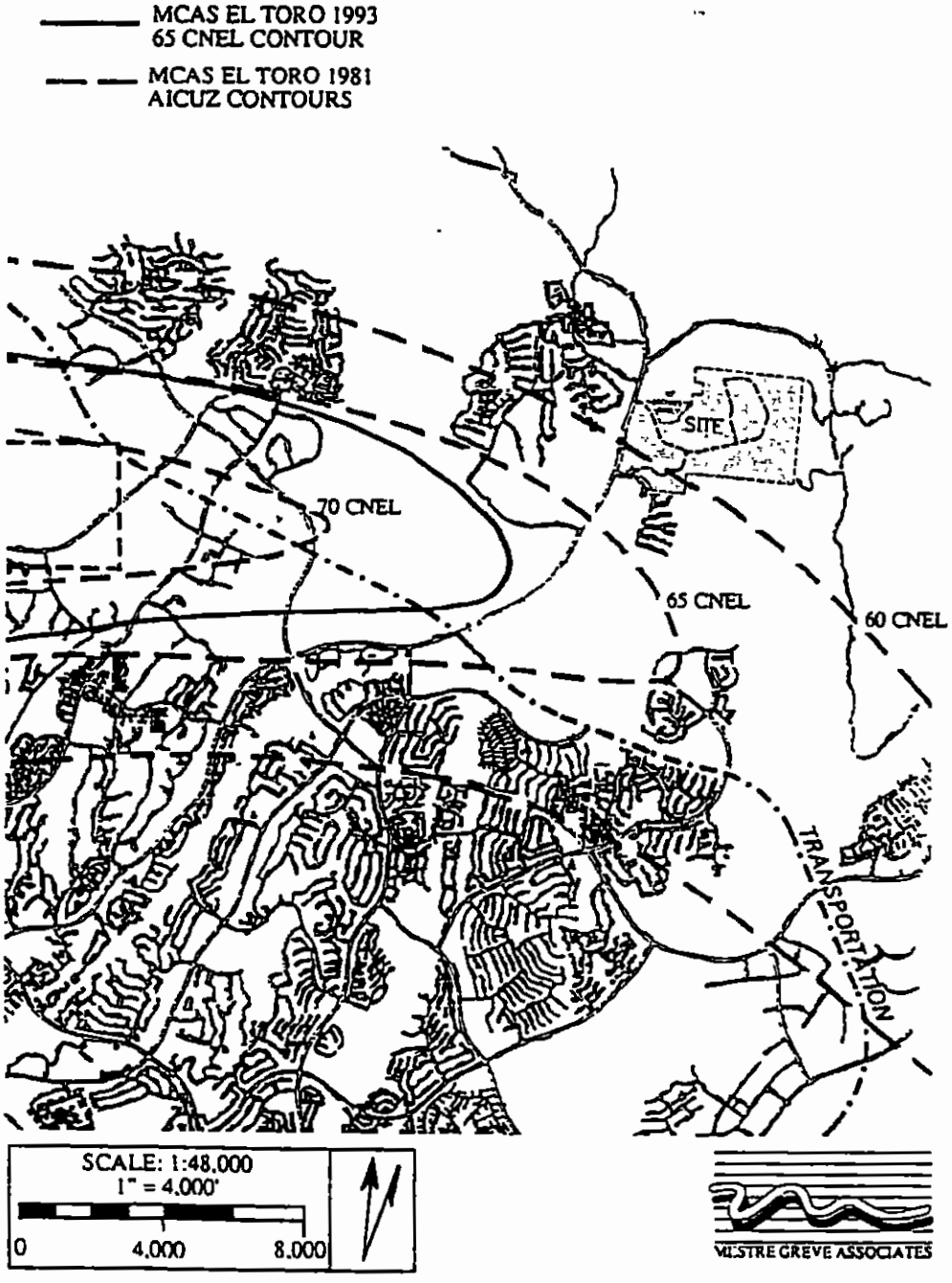
b. Exterior Standard: CNEL of less than 65-decibels in outdoor living areas

c. Interior Standard: LEQ(h) = 45 to 65 decibels interior noise level, depending on interior use

TYPICAL USE	LEQ(h)
Private Office, Church Sanctuary, College, Preschool, Schools (Grade K-12), Board Room, Conference Room, etc.	45
General office, Reception, Clerical, etc.	50
Schools (Grades K-12)	52
Bank Lobby, Retail Store, Restaurant, Typing Pool, etc.	55
Manufacturing, Kitchen, Warehousing, etc.	65

d. Exterior standard: LEQ(h) of less than 65 decibels in outdoor living areas.

e. Interior Standard: As approved by the Board of Supervisors for sound events of short duration such as aircraft fly-overs or individual passing railroad trains.



Project Location Relative to El Toro MCAS Noise Contours

FIGURE 2

contour just touches a few lots in the southwestern corner of the project site. Almost all developed lots are outside the 60 dB CNEL contour. However, County policy relative to aircraft noise exposure is to use the highest exposure anywhere on the property as the noise reference level. At the property line adjacent to Valley Vista Way in an area of proposed commercial development, the maximum EL Toro MCAS noise exposure is 62 dB CNEL. To be consistent with County policy, this level was thus used as an impact evaluation/mitigation criterion with the understanding that its use is overpredictive to varying degrees across the project site.

Aircraft fleet conversion since the noise element was adopted have slightly reduced the project site noise exposure. Whereas the project site is shown as being traversed by the 60 dB CNEL contour near the southwest corner of the property in the County Noise Element, its current location is south of the project site. Figure 2 also shows the results of more recent (1993) noise impact calculations. The 65 dB CNEL contour (and presumably the 60 dB CNEL contour as well) is seen to have shrunk by about 1 mile along the point of maximum extent. Distance reduction in the cross-lobe direction of the noise contour is smaller, but is enough to pull the 60 dB CNEL contour off the site. Because the 1993 (or any more current year) noise contours have not been officially adopted, the noise requirements for the project will be those engendered by the 1981 contours. Compliance with the 1981-based noise constraints may require a small amount of extra mitigation than if more current noise levels were used. In an aircraft noise environment, any small extra margin of safety, if achieved without great cost, is a desirable circumstance.

Because aircraft noise contours are constructed based upon average annual operations, and because the contours represent extended periods of quiet with isolated noise peaks, CNEL is not necessarily the best indicator of noise nuisance potential. Individual fly-over events may thus be intrusive even if the CNEL is below levels considered unacceptable for noise-sensitive uses. Mitigation for single event intrusion has therefore been incorporated for much new South County development near EL Toro MCAS flight tracks even if the CNEL itself did not trigger such requirements.

In order to characterize existing project site noise levels, a brief noise measurement program was undertaken on August 28, 1995. Noise levels were measured for 30-minute periods near El Toro Road, and again near the caretaker's trailer by the cattle corral. There was no observed El Toro MCAS flight activity during these measurements. There were, however, several USMC helicopter overflights during the site interior noise measurements. The observed noise levels (in dB) were as follows:

Parameter	50' to El Toro Rd.	Cattle Corral[a]	Cattle Corral[b]
LEQ	67.8	62.4	48.0
Lmax	86.5	86.5	----
Lmin	38.0	39.0	----
L10	71.0	55.5	----
L50	59.5	46.0	----
L90	43.5	42.5	----

[a] - with helicopter overflights
[b] - without helicopter activity

The dramatic effect of just a few single loud noise events skewing the average is seen in the difference between periods of helicopter traffic versus flight-free periods. Without the helicopters, the site interior has a semi-rural noise character. With the flight activity, the average noise level, as expressed by LEQ, is only around 5 dB less than directly adjacent to El Toro Road. As noted above, average noise exposure alone is therefore not a completely sufficient criterion for evaluating possible impacts of the ambient acoustic environment on development plans for Saddleback Meadows.

Single event noise can vary substantially with individual overflights. An unusual flight altitude, power setting or even atmospheric conditions can substantially alter the instantaneous maximum. As a rule of thumb, the instantaneous maximum tends to be around 25 dB higher than the CNEL. With a 60 dB aircraft CNEL adjacent to the site, peaks of 85 dB would likely be experienced from single aviation events passing over/near the proposed project site.

NOISE IMPACTS

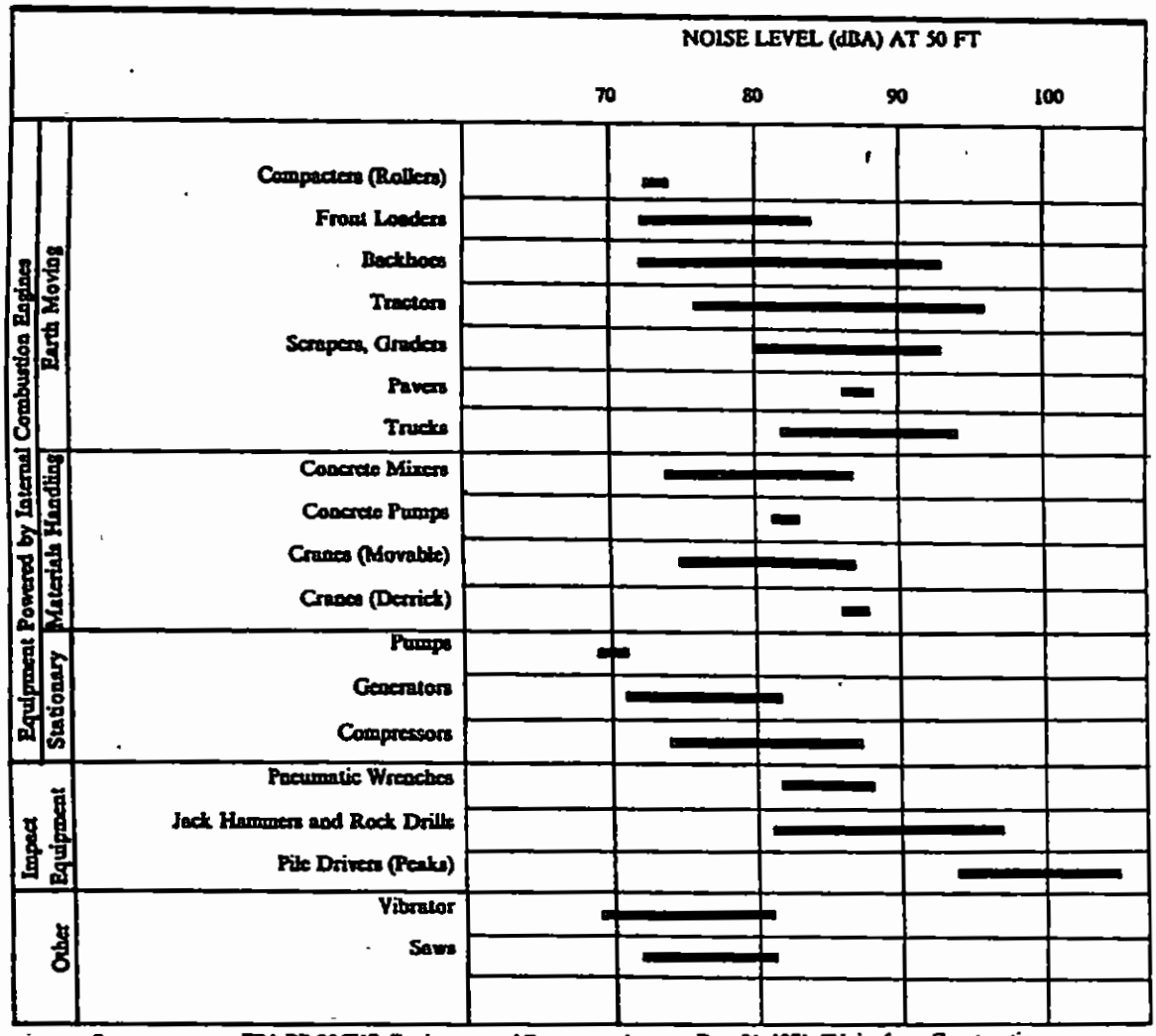
Three noise concerns are typically identified with land use intensification such as that proposed for the project area. Construction activities, especially heavy equipment, will create short-term noise increases near the project site. Upon completion, project-related traffic will cause an incremental increase in areawide noise levels throughout the El Toro area. Since, however, the number of trips generated by the proposed project is limited, the impact of ambient noise on the project site, rather than project traffic noise impacts on the rest of the community, is likely the important noise environment concern.

Construction Noise Impacts

Temporary construction noise impacts will vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by site clearing and grading, then by foundation construction, and finally for finish construction. The earth-moving (grading) activities are seen in Figure 3 to be the noisiest sources during construction with equipment noise ranging from 75 to 90 dB(A) at 50 feet from the source. The range of noise levels shown in Figure 3 is meant to indicate that long-term (hourly or more) noise levels are at the lower end of the range, while short-term peaks are at the upper end.

Spherically radiating point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The quieter construction noise sources will, therefore, drop below 60 dB by about 300 feet from the source while the loudest sources might still be detectable above the local background beyond 1,000' from the construction area. With hilly topography in the project vicinity, the terrain shielding effects will limit the "noise envelope" around each construction site to considerably less than its theoretical maximum.

Construction noise sources are not strictly relatable to a noise standard because they occur only during selected times and the source strength varies sharply with time. The penalty associated with noise disturbance during quiet hours and the nuisance factor accompanying such disturbance usually leads to time limits on grading activities imposed as conditions on grading permits. The weekday (including Saturday) hours from 7 a.m. to 8 p.m. are the times allowed in the Orange County Noise Ordinance for construction or grading. Division 6 (Sec. 4-6-1, et seq.) of the County Code



Source: EPA PB 206717, Environmental Protection Agency, Dec. 31, 1971, "Noise from Construction Equipment & Operations"

	TYPICAL CONSTRUCTION EQUIPMENT NOISE GENERATION LEVELS	FIGURE 3

also contains standard requirements related to the distance separation between construction activities and any occupied dwellings. EMA's "Standard Condition for Approval" N10 requires:

1. All powered equipment operating within 1,000 feet of a dwelling must have a properly operating and maintained muffler.

2. Stockpiling and staging activities must be located as far as practicable from dwellings.

Construction activities in areas of noise-sensitive biotic habitats such as coastal sage scrub containing gnatcatchers may affect bird behavior. Little actual evidence of noise effects on gnatcatchers has been documented, but many wildlife management agencies believe such effects exist. In San Diego County, a standard of 60 dB Leq (one hour average) derived from studies on least Bell's Vireo has been applied to gnatcatchers. Use of this standard ignores the fact that a large number of successful breeding pairs have been found directly under the take-off end of major airport runways or next to freeways where peak hourly noise levels reach almost 80 dB. Many San Diego County grading projects have nevertheless been conditioned to avoid the breeding season for possibly noise-sensitive birds, or to erect temporary berms or other buffers to reduce avian noise exposure if seasonal avoidance is not practical.

Development-Related Vehicular Noise Impacts

Off-Site Noise Levels

Long term noise concerns from the increased urbanization of the project area center primarily on mobile source emissions surrounding the project site. These concerns were addressed using the California specific vehicle noise curves (CALVENO) in the federal highway noise prediction model (FHWA-RD-77-108) in a computerized version of the model developed by Caltrans. The model calculates the Leq noise level for a particular reference set of input conditions, and then makes a series of adjustments for site-specific traffic volumes, distances, speeds, or noise barriers.

Project-related traffic may incrementally contribute to the noise exposure of off-site receiver locations. Of the 7,530 "new" daily project-generated trips, 60% will travel south on El Toro Road, while the other 40% will travel inland. At each subsequent turning opportunity, fractions of each traffic stream will split into different directions and thus dilute any off-site project traffic noise impact. The CNEL at 100 feet from area roadways for various scenarios is shown in Table 3.

TABLE 3

CNEL (dB[A]) at 100' to Centerline

Link	Exist.	Exist. + Project	2000 No Proj.	2000 w/Proj.	2020 No Proj.	2020 w/Proj.
Santiago Canyon Road:						
North of Modjeska Canyon Road	65	65	65	65	67	67
Modjeska Canyon Road to Ridgeline	65	65	65	66	67	67
Ridgeline Road to Live Oak Cyn. Road	63	64	65	66	67	67
Modjeska Canyon Road:						
East of Santiago Canyon Road	53	54	55	55	55	55
El Toro Road:						
Ridgeline Road to Project	65	66	65	66	68	68
Project to Valley Vista	65	66	65	67	68	68
Valley Vista - Glenn Ranch	65	66	65	66	67	68
Glenn Ranch Road to SR-241	65	66	66	67	68	68
SR-241 to Marguerite Parkway	65	66	66	67	68	68
Marguerite Pkwy. to Santa Margarita Pkwy.	65	65	66	66	68	68
West of Santa Margarita Parkway	67	67	67	67	69	69
Portola Parkway:						
North of SR-241	67	67	69	69	71	71
Santa Margarita Parkway:						
SR-241 to El Toro Road	66	67	70	70	72	72
South of El Toro Road	68	68	69	69	70	70
Ridgeline Road:						
Santiago Cyn. Rd. to Saddleback Ranch Rd.	56	57	60	60	61	61
Saddleback Ranch Rd. to El Toro Road	56	57	59	60	60	60
Saddleback Ranch Road:						
Ridgeline Road to Glenn Ranch Road	61	61	63	63	64	64
Glenn Ranch Road:						
Portola Parkway to Saddleback Ranch Rd.	60	62	66	66	68	68
Saddleback Ranch Road to El Toro Road	59	61	63	64	67	67
Live Oak Canyon Road:						
East of El Toro Road	60	61	62	62	63	63
Valley Vista Way:						
East of El Toro Road	53	57	57	59	57	59
Marguerite Parkway:						
South of El Toro Road	64	64	67	67	70	70
Project Access Road:						
East of El Toro Road	N/A	61	N/A	61	N/A	61

N/A = no data available Source: FHWA-RD-77-108 (Calveno mod.)

In areas of greater concentration of site-related traffic, high non-project traffic levels will substantially mask any small project noise contribution. Detectable project-related noise increases will only occur in areas of low baseline traffic volumes. The maximum project-related traffic noise impact of +4 dB will occur along Valley Vista Way. Table 4 shows, however, that the 65 dB CNEL contour along Valley Vista Way will remain within the roadway right-of-way (<50' from centerline) along this segment for "with-project" conditions. Similarly, a project-related traffic noise increase of +2 dB along Glenn Ranch Road is again characterized by no substantial expansion of the 65 dB CNEL noise contour as a significant noise exposure for sensitive receivers.

Maximum off-site traffic noise impacts in areas of already elevated non-project traffic noise are 1 dB or less. Noise level differences of less than 1 dB are not distinguishable even in a laboratory setting -- much less in an ambient environment. Maximum expansion of the 65 dB CNEL contour is seen in Table 4 to occur along El Toro Road directly adjacent to the project site. An increase of 20 feet in contour distance occurs for "plus project versus existing", "2000 with project versus no project" and "2020 with project versus no project" scenarios. Away from the project site with dilution of project-related traffic, the project-related increment drops steadily to 10-foot, then a 5-foot, and quickly to an immeasurably small increase. The project is too limited in scope to create a discernible change in off-site traffic noise levels. The noise impact of the project on the ambient acoustic environment is judged to be less than significant.

<u>On-Site Noise Exposure</u>

The roadway that could affect project on-site noise exposure is El Toro Road. At the maximally exposed lot at around 400 feet from El Toro Road, the traffic noise level will be 63.5 dB CNEL at area buildout for an acoustically "hard" underlying surface. The El Toro MCAS aircraft noise contribution at this location is 60 dB CNEL. Their combined exposure is 65 dB CNEL. This just meets the Orange County exterior noise standard for residential use and requires no exterior noise mitigation. This calculation is a theoretical worst-case condition that assumes:

1. The maximally exposed residence in the year 2020 has a 180 degree field of view of El Toro Road without terrain irregularities or any vegetative noise absorption, and,

2. Aircraft noise in 2020 is characterized by El Toro MCAS aircraft mixes and operational conditions that existed almost twenty (20) years before today.

TABLE 4

DISTANCE FROM CENTERLINE TO 65 dB CNEL CONTOUR (feet)

Link	Exist.	Exist. + Project	2000 No Proj.	2000 w/Proj.	2020 No Proj.	2020 w/Proj.
Santiago Canyon Road:						
North of Modjeska Canyon Road	100	105	100	105	140	140
Modjeska Canyon Road to Ridgeline	100	105	100	110	130	135
Ridgeline Road to Live Oak Cyn. Road	80	85	105	110	125	130
Modjeska Canyon Road:						
East of Santiago Canyon Road	<50	<50	<50	<50	<50	<50
El Toro Road:						
Ridgeline Road to Project	100	110	105	115	145	155
Project to Valley Vista	100	120	105	125	145	165
Valley Vista - Glenn Ranch	100	120	105	125	145	165
Glenn Ranch Road to SR-241	105	120	120	130	160	165
SR-241 to Marguerite Parkway	105	115	120	130	160	165
Marguerite Pkwy. to Santa Margarita Pkwy.	95	100	110	120	160	165
West of Santa Margarita Parkway	135	140	140	145	175	180
Portola Parkway:						
North of SR-241	130	135	190	195	235	240
Santa Margarita Parkway:						
SR-241 to El Toro Road	125	125	230	230	295	295
South of El Toro Road	145	150	175	175	220	220
Ridgeline Road:						
Santiago Cyn. Rd. to Saddleback Ranch Rd.	<50	<50	<50	<50	50	55
Saddleback Ranch Rd. to El Toro Road	<50	<50	<50	<50	<50	50
Saddleback Ranch Road:						
Ridgeline Road to Glenn Ranch Road	55	55	70	75	90	90
Glenn Ranch Road:						
Portola Parkway to Saddleback Ranch Rd.	<50	60	110	120	155	160
Saddleback Ranch Road to El Toro Road	<50	55	70	85	130	135
Live Oak Canyon Road:						
East of El Toro Road	<50	50	65	65	75	75
Valley Vista Way:						
East of El Toro Road	<50	<50	<50	<50	<50	<50
Marguerite Parkway:						
South of El Toro Road	90	95	130	135	210	215
Project Access Road:						
East of El Toro Road	N/A	50	N/A	50	N/A	50

N/A = no data available Source: FHWA-RD-77-108 (Calveno mod.)

Both assumptions probably somewhat over-state horizon year noise exposures. There is likely an extra margin of safety relative to meeting the 65 dB CNEL exterior standard without any supplemental noise mitigation.

Mitigation in the form of exterior to interior noise attenuation will be required to meet the 45 dB CNEL interior standard for all units within the development since a maximum 62 dB CNEL aircraft noise contour will cover the site as long as El Toro MCAS operations occur. With open windows, exterior to interior noise reduction is approximately 12 dB. Any project site exposure exceeding 57 dB CNEL can not meet the 45 dB CNEL interior standard with open windows. Meeting the interior standard thus requires the option to close the window. Such ability, in turn, requires that there is supplemental mechanical ventilation to replace the natural draft eliminated by such closure. For new homes in inland valleys of Orange County, air conditioning is normally a standard feature meeting this requirement.

Noise reduction of 20 dB is normally attainable with closed single-paned windows. That will reduce any aircraft-related CNEL from 62 to 42 dB. As previously noted, however, CNEL is not the best predictor of noise annoyance due to single event phenomena such as individual overflights. Measured peak noise levels from helicopter operations were 86.5 dB in the center of the project site. A comparable level would likely occur from El Toro jet aircraft operations. A 20 dB attenuation would create a 65+ dB single event level that may be annoying to occupants even with windows closed. Most new developments within the fringes of the El Toro MCAS noise impact envelope thus have been built with acoustically enhanced windows. Such windows reduce single event noise, reduce vibration response (rattle) to aircraft noise often found in single-pane windows and are more energy efficient. Use of windows rated with a sound transmission class (STC) of 25 or better is therefore recommended to reduce noise annoyance potential from single events.

Residential activities may affect adjacent noise-sensitive land uses such as contemplative religious facilities. These facilities are, however, already exposed to single event aircraft noise that is much louder than a distant barking dog, lawnmower or auto horn associated with project residential use. The combination of irregular terrain, distance buffering and normally quiet residential activities are not expected to create a significant noise impact on any adjacent abbey or monastery uses.

NOISE IMPACT MITIGATION

The project noise impact study indicates a less than significant noise impact from project-related traffic on project vicinity receptors. Ambient noise levels were also shown to present no development constraint as the project site has more than adequate setback from El Toro Road to meet Orange County standards.

Construction activities may create a temporary adverse impact if new construction occurs adjacent to already completed residences. This potential will be minimized by completion of all mass grading before any homes are constructed. Construction noise could adversely affect any sensitive biotic species such as gnatcatchers if such species are present in the project vicinity. Although monitoring in high noise environments has shown gnatcatchers to be less noise-sensitive than sometimes believed, noise protection during construction has been required in some projects. Projects in Orange County have generally not been conditioned for gnatcatcher noise protection. Construction activity mitigation measures recommended for this project thus only include standard County requirements as follows:

- All construction and general maintenance activities, except in an emergency, shall be limited to the hours of 7 a.m. to 8 p.m. Monday through Saturday and should utilize the quietest equipment available.

- All on-site construction equipment should have properly operating mufflers.

- All construction staging areas should be as far away as possible from any surrounding completed development.

Single event noise from aircraft (fixed or rotary wing) may be intrusive in homes with "standard" construction. Aircraft noise is expected to subside with the elimination of military aviation in Orange County. Given, however, that a commercial airport may replace military operations, enhanced acoustical window treatment is recommended as follows:

- All operable windows exceeding 6 square feet of total glazing should be rated STC = 25 or greater.

APPENDIX H
BIOLOGICAL RESOURCES ASSESSMENT

BIOTECHNICAL REPORT FOR SADDLEBACK MEADOWS

Prepared for:

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DRAFT

SWEETWATER
ENVIRONMENTAL
BIOLOGISTS, INC.

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EXECUTIVE SUMMARY

This biotechnical report describes existing conditions, anticipated impacts, and mitigation for the Project (Project). The biological data used in this report are from the results of previous surveys of the site vicinity (PSBS 1993; 1994) and survey work by Sweetwater Environmental Biologists, Inc. (SEB) in 1994 and 1995.

The Project site is approximately 222.2 acres located in an unincorporated portion of east-central Orange County, south of El Toro Road, and east of the Foothills Transportation Corridor. The Project proposes the development of 705 residential lots, two parks, a water tank, and associated surface streets. Approximately 206.2 acres (including 17.4 acres off site) will be impacted, including remedial grading and fuel modification zones outside of grading limits, leaving 33.4 acres on site designated as open space. Most of the site would be graded except for a canyon side that overlooks O'Neill Regional Park. Under the current plan, no wildlife corridors would be maintained across the Project site.

Two alternatives are being considered for the Project: the 299 Unit Single Family Housing Alternative and the Cluster/Reduced Development Footprint. Under both of these alternatives there would be increased open space and maintenance of a wildlife corridor across the site.

Early surveys conducted by PSBS (1993; 1994) mapped sensitive plant and animal species, vegetation communities, and manmade stock (ephemeral) ponds, and completed a federal wetland delineation. Recent surveys by SEB were conducted to update this information. This report places special emphasis on the results of these recent surveys, the occurrence of Riverside fairy shrimp (*Streptocephalus woottoni*), and additional sensitive resources found on site No coastal California gnatcatchers (*Polioptila californica californica*) occur on site.

Four sensitive vegetation communities occur on site: Venturan-Diegan transitional coastal sage scrub (undisturbed and disturbed), coast live oak woodland, southern sycamore riparian

woodland, and mule fat scrub. For this report, ephemeral ponds are also considered sensitive because they support the Riverside fairy shrimp. Annual grassland, southern mixed chaparral, and agricultural land also occur on the site, but these are not sensitive communities.

The site supports two sensitive plant species: Catalina mariposa lily (*Calochortus catalinae*) and intermediate mariposa lily (*Calochortus weedii* ssp. *intermedius*). The site also supports eight sensitive animal species: Riverside fairy shrimp, western spadefoot (*Spea hammondi*), coastal whiptail (*Cnemidophorus tigris multiscutatus*), orangethroat whiptail (*Cnemidophorus hyperythrus beldingi*), cactus wren (*Campylorhynchus brunneicapillus*), loggerhead shrike (*Lanius ludovicianus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and Cooper's hawk (*Accipiter cooperii*). Of particular interest is the Riverside fairy shrimp, which is listed as endangered by the U.S. Fish and Wildlife Service.

Approximately 50.3 acres of Venturan-Diegan transitional coastal sage scrub (including 6.1 acres off site), 14.6 acres of coast live oak woodland (289 individual oaks), 3.3 acre of southern sycamore riparian woodland (including 2.8 acres off site), and 3.8 acres of mule fat scrub (including 1 acre off site) will be impacted by the Project. In addition, 0.6 acre of the manmade stock ponds supporting the Riverside fairy shrimp will be directly impacted. All of the above impacts are significant according to the California Environmental Quality Act. A federal Clean Water Act Permit issued by the U.S. Army Corps of Engineers will be necessary for direct impacts to 1.65 acres of wetlands (0.84 acre of mule fat scrub and 0.81 acre including approximately 0.71 acre off site) of southern sycamore riparian woodland [already included in the acreage stated above) and 1.78 acres of Waters of the U.S. (intermittent streams and manmade stock ponds). A streambed alteration agreement with the California Department of Fish and Game will also be required for the 1.65 acre of impacts to wetlands.

Seven stands of Catalina mariposa lily and one stand of intermediate mariposa lily will be at least partially impacted by the Project. One stand of Catalina mariposa lily and two stands of intermediate mariposa lily will likely remain despite the impact. An estimated 314 (72 percent) of the 435 individuals of Catalina mariposa lily will likely be lost, leaving an estimated 121 individuals in one stand in open space. These impacts are not significant because of the low level of sensitivity of the plant, its generally wide distribution in southern California, and the relatively small population size on site. One stand of intermediate mariposa lily (one individual) will be graded, while two stands (18 individuals) are within the non-irrigated fuel modification zone, (or within open space) and are assumed to remain. This impact is not significant because of the small amount of impact and small regional significance of the on-site population.

Impacts totaling 50.3 acres to Venturan-Diegan transitional coastal sage scrub will impact the orangethroat whiptail, coastal whiptail, at least four cactus wren territories, and at least 12 southern California rufous-crowned sparrow territories. These impacts are significant but mitigable considering the low level of sensitivity of these species. Cooper's hawks were found foraging on site, but no nests were observed. Impacts to Cooper's hawks will therefore be limited to foraging habitat and are not significant. The 0.6 acre of impacts to ephemeral ponds will significantly impact the Riverside fairy shrimp.

The Project adheres to the State of California's Natural Communities Conservation Program (NCCP). The NCCP establishes guidelines for conservation of coastal sage scrub and is the basis for a preserve system in Orange County. The Project site, which occurs in the southern subregion of the Orange County NCCP preserve, has undergone extensive planning, and three corridors are proposed to meet wildlife corridor needs in this area. In accordance with the NCCP, the loss of coastal sage scrub due to the Project is less than the allowable 5 percent of the total coastal sage scrub in the subregion. According to the NCCP Evaluation Logic Flow Chart, the coastal sage scrub on the Project site has intermediate value for long-term conservation because although it is not the most dense coastal sage scrub in the region, it is located next to a higher value district (O'Neill Regional Park).

Wildlife corridor design is important in counteracting the effects of wildlife habitat fragmentation. Three wildlife corridors are proposed in the site vicinity because it is thought that a single corridor will not be adequate for all wildlife. One corridor would be required on Saddleback Meadows while the other two would occur off site to the north and south. The corridor on site (Central Corridor) would not be suitable for the gnatcatcher because the site is not occupied and does not support enough coastal sage scrub to be adequate. Rather, the Central Corridor is planned to primarily facilitate movement of certain bird species and small- to medium-sized mammals. The corridor to the south would primarily facilitate gnatcatcher and other bird movement, and the corridor to the north would be most appropriate for large mammal movement. Neither off-site corridor is within the scope of the Project, but each has potential for incorporation into future land use planning.

As designed, the Central Corridor is not to be implemented. Thus, the Project would have significant, unmitigated impacts on regional wildlife corridors. The two alternatives maintain a wildlife corridor across the site—across the central ridge of the site under the 299 Unit Single Family Housing Alternative and across the northeast corner of the site under the Cluster/Reduced Development Footprint.

Mitigation for Project impacts to habitat and sensitive resources will primarily involve dedication of non-developed areas on site to open space, revegetation of remedial grading areas, and contribution to the NCCP. Despite these measures, certain impacts would remain unmitigated by the Project.

Approximately 40.4 acres of the remedial grading areas (outside of fuel modification areas) will be revegetated with Venturan-Diegan transitional coastal sage scrub. The remaining Venturan-Diegan transitional coastal sage scrub mitigation requirement will be met by a combination of enhancement/restoration within the wildlife corridor and making a financial contribution to the Endowment Fund for the NCCP (to be used for programs such as the Adaptive Management Program).

In applying Orange County's municipal code, the amount of oak transplantation is established based on the diameter and number of oaks impacted. Since mitigation areas are not available on site, mitigation will have to take the form of off-site acquisition, off-site restoration, or contribution to the Orange County NCCP. Southern sycamore riparian woodland that is impacted will need to be replaced at a ratio of 3:1. As with the oak mitigation, restoration sites will be limited on site after development, although some may be possible within Aliso Creek. The majority of riparian mitigation will have to be conducted off site through acquisition, restoration, or contribution to the Orange County NCCP. Mitigation for Riverside fairy shrimp impacts is not possible on site. The possible mitigation option for the Riverside fairy shrimp is purchase of Riverside fairy shrimp habitat off site. The exact amount required for mitigation would be determined during consultation with the resource agencies.

Approximately 22.9 acres of Venturan-Diegan transitional coastal sage scrub, 0.5 acre of coast live oak woodland, 0.1 acre of mule fat scrub, and 3.6 acres of southern mixed chaparral will not be impacted but will be directly dedicated to open space on site. The remaining mitigation will be met through on-site revegetation, off-site restoration or acquisition, and/or monetary contribution.

INTRODUCTION

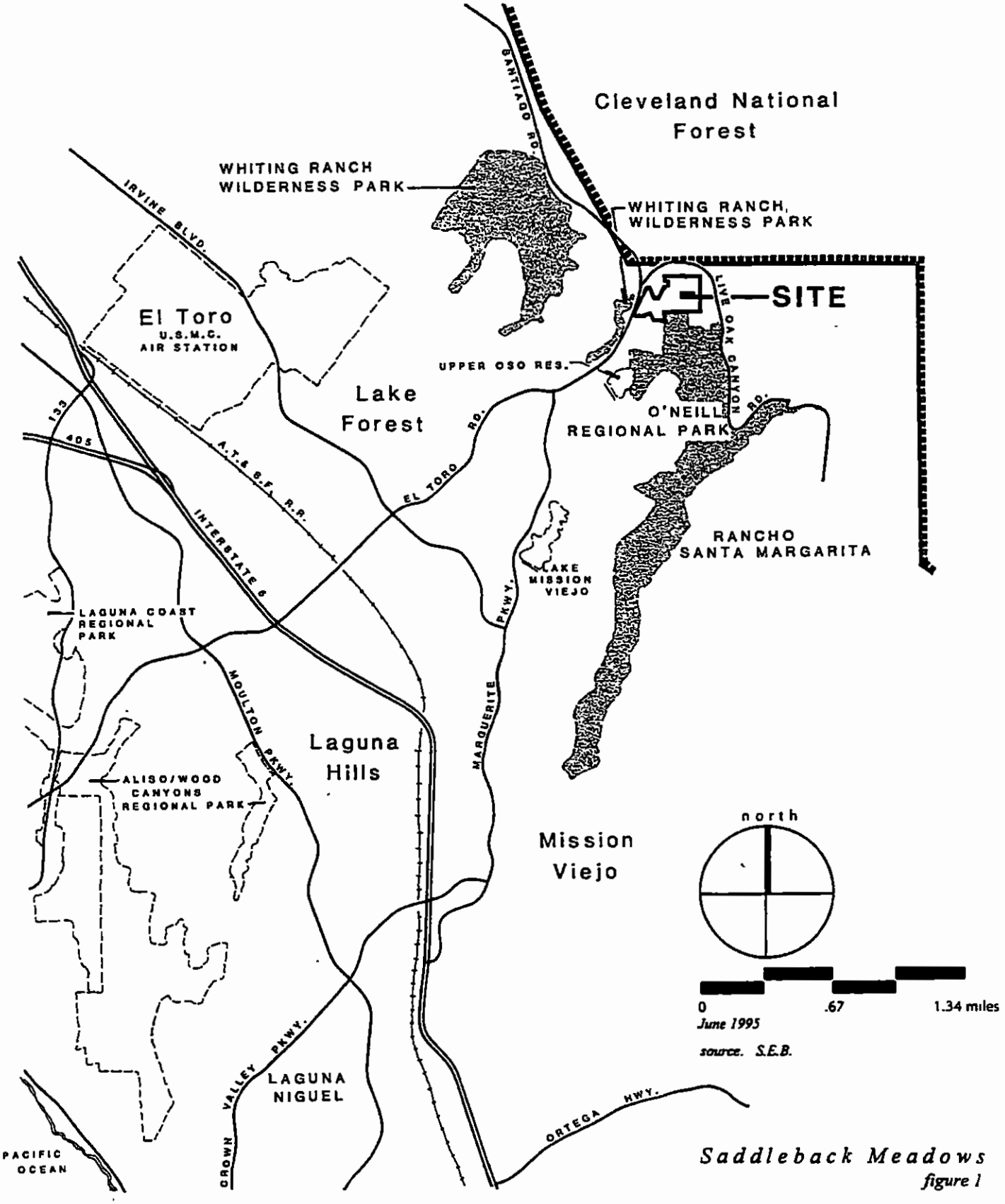
This report documents existing biological conditions, evaluates project impacts, and identifies mitigation measures that would reduce impacts to biological resources to less than significant levels on the Saddleback Meadows Project (Project) site. It also provides the County of Orange with information necessary to assess Project impacts of Saddleback Meadows under the California Environmental Quality Act (CEQA), the California Natural Communities Conservation Program (NCCP), state and federal Endangered Species Acts (ESAs), and Orange County ordinances. The Project site is approximately 222.2 acres. It is located in an unincorporated portion of east-central Orange County, south of El Toro Road and east of the Foothills Transportation Corridor (Figures 1 and 2).

Orange County's NCCP is currently being prepared and consists of northern, central, and southern subregions. The Project site occurs on the northern boundary of the southern NCCP subregional preserve and the southern boundary of the central NCCP preserve. The site is positioned in such a way that it plays a key role in the maintenance of a wildlife corridor between the central and southern subregional NCCP preserves. Other Projects surrounding the site received approval prior to approval of the Project site, reducing the flexibility of open space strategy in the area.

The Foothill Trabuco Specific Plan (Orange County Environmental Management Agency 1991) for the Project vicinity was adopted by the County of Orange in 1991. Originally the Project site was recorded as a final map in 1988.

PROJECT DESCRIPTION

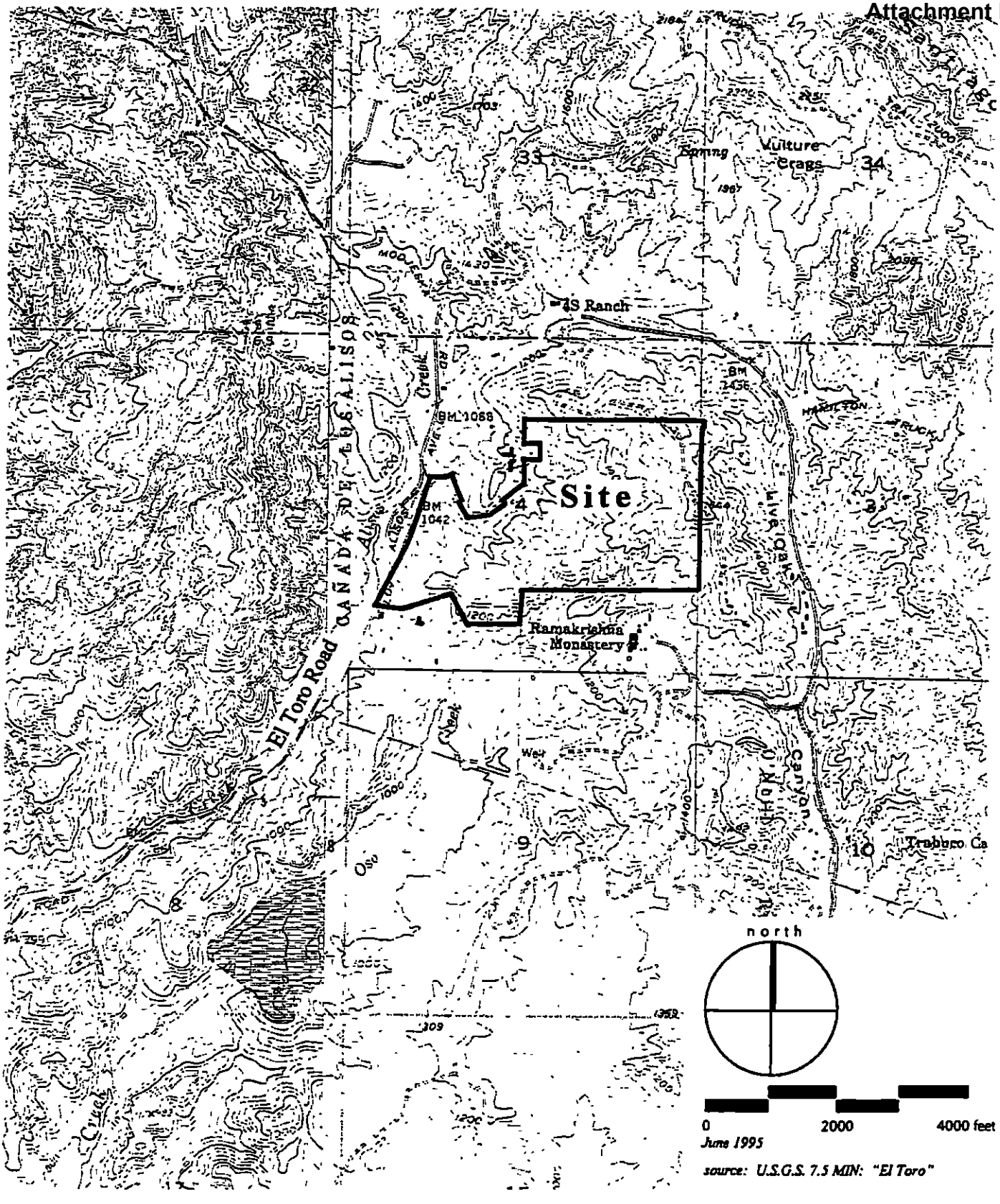
The Project proposes the development of 705 residential lots, two parks, a water tank, and associated surface streets within the 222.2-acre site. The minimum lot size is 3,200 square feet and the housing density is 3.17 units per acre. Primary access to the property will be



Saddleback Meadows
figure 1

Vicinity Map

prepared by: Sweetwater Environmental Biologists, Inc



Saddleback Meadows
figure 2

Location Map

prepared by Sweetwater Environmental Biologists, Inc.

from El Toro Road to the west, while secondary emergency access only will be from Valley Vista Way in the Hidden Ridge Project to the south.

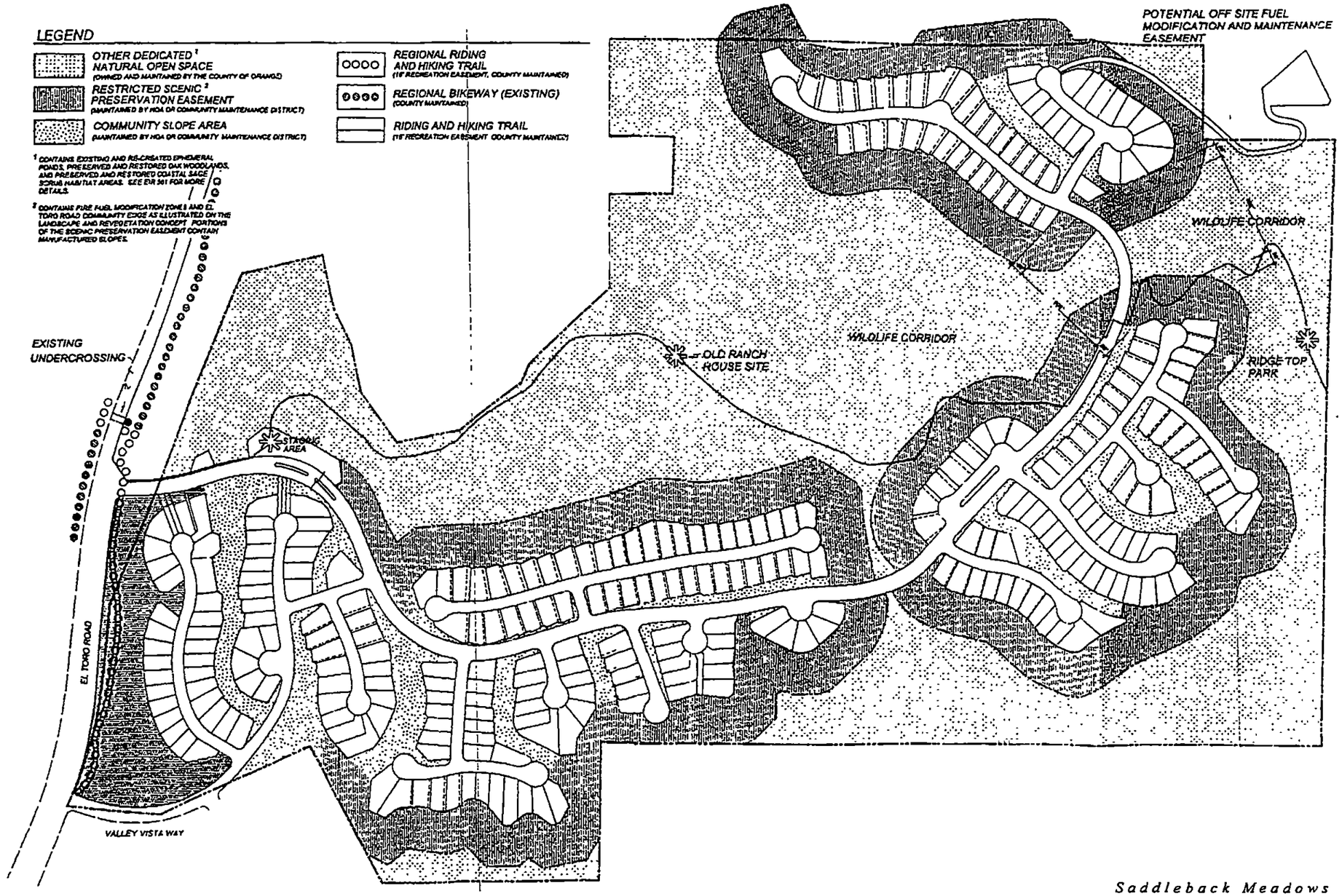
Of the 222.2-acre site, approximately 188.8 acres on site and 17.4 acres off site will be impacted with 33.4 acres on site remaining unmodified. Included within the impacted areas are remedial slope areas outside of the development limits that are necessary due to on-site geological stability issues and fuel modification zones. All of the remedial slopes occurring outside of the fuel modification zones will be revegetated with native vegetation after grading and are part of the Project's mitigation requirement. Although not part of the Project's mitigation, remedial slopes within the fuel modification zone will also be planted with native vegetation.

Two alternative development schemes are being considered that achieve the Project's objectives while reducing Project impacts. The first alternative is a 299 Unit Single Family Housing Alternative that accommodates a wildlife corridor across the northeast portion of the site (Figure 3). The second alternative is a Cluster/Reduced Development Footprint that maintains a wildlife corridor across the central portion of the site (Figure 4). These two alternatives are not analyzed in detail in this document.

PHYSICAL DESCRIPTION AND LAND USE

The Project site is situated amid the lower, southwestern foothills of the Santa Ana Mountains (Figure 2). The topography on site is hilly with several steep slopes and ravines. Aliso Creek generally follows El Toro Road near the western site boundary. Drainage is to the west into Aliso Creek and to the south into O'Neill Regional Park.

Past and present land use was/is primarily cattle grazing. Cattle grazing has reduced the coverage of shrub communities on site. Otherwise, the land is undeveloped. The largest nearby developments are Hidden Ridge to the south and Portola Hills just off site to the west.

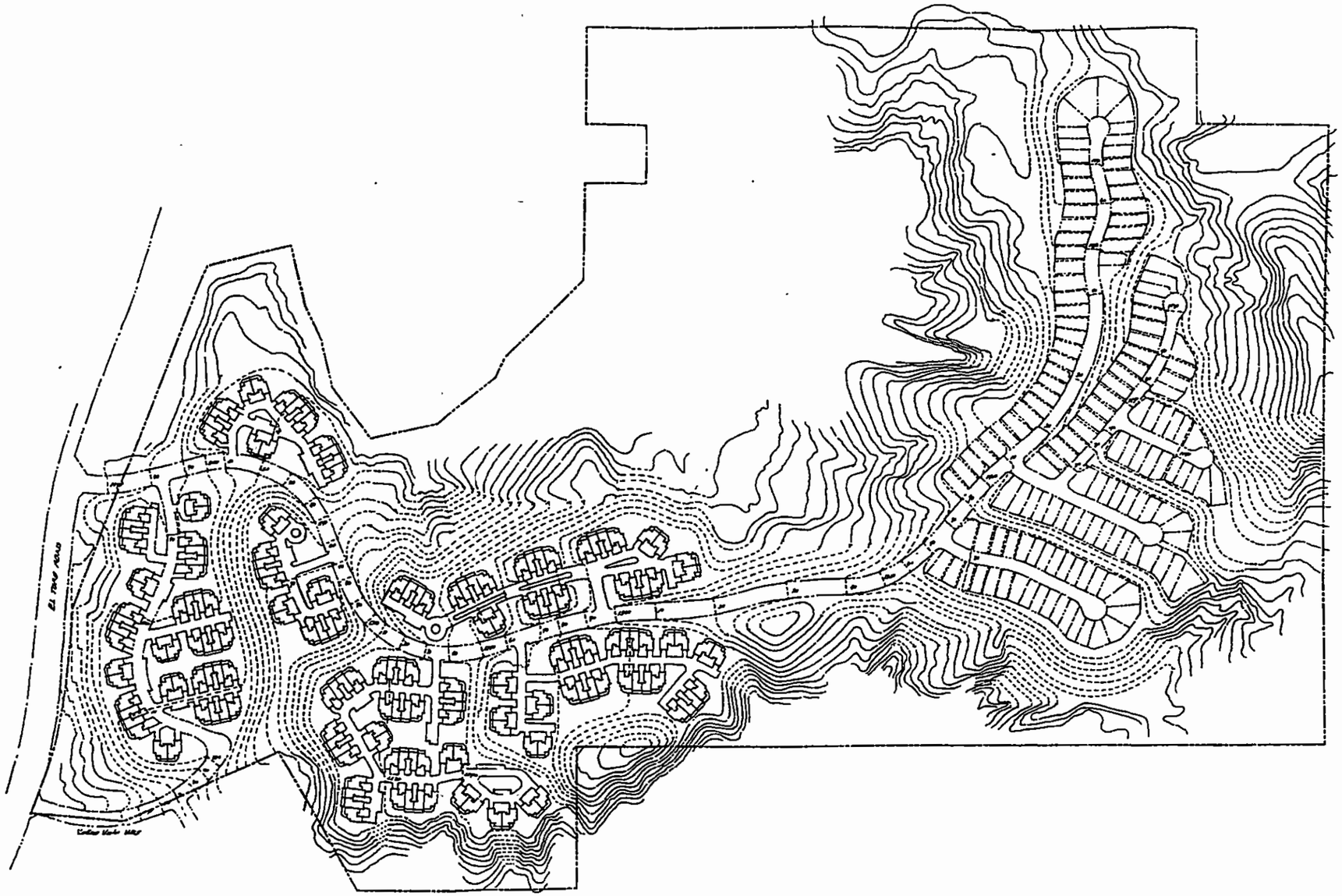


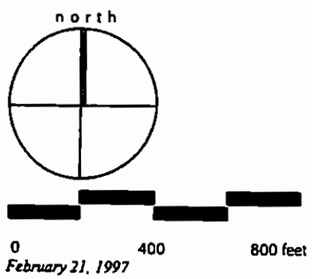
February 21, 1997

Saddleback Meadows
figure 3

299 Unit Single Family Housing Alternative

prepared by: Sweetwater Environmental Biologists, Inc.





February 21, 1997

Saddleback Meadows
figure 4

Cluster/Reduced Development Footprint

prepared by: Sweetwater Environmental Biologists, Inc

METHODS

Prior to visiting the site, Sweetwater Environmental Biologists, Inc. (SEB) consulted previous site-specific biological reports completed by Pacific Southwest Biological Services ([PSBS] 1993; 1994). SEB performed a literature search for sensitive species that may potentially occur on site, including a search through an in-house database containing information from the California Natural Diversity Data Base.

A total of eight wildlife surveys were completed by PSBS. These included two general wildlife surveys in 1989, a general wildlife survey and three coastal California gnatcatcher (*Polioptila californica californica*) surveys in 1993, and three gnatcatcher surveys in 1994.

The 1993 and 1994 surveys for gnatcatchers satisfied U.S. Fish and Wildlife Service (USFWS) accepted protocol for gnatcatcher presence/absence surveys. Taped vocalizations of the coastal California gnatcatcher were played in all of the Venturan-Diegan transitional coastal sage scrub habitats on site. Field investigators spent more than one hour per 25 acres of habitat during the surveys.

The overall wildlife data appear adequate for assessing the general presence and distribution of the various groups of vertebrates on the site. The PSBS surveys had limitations in coverage, most of which were identified in PSBS's 1994 report when they stated that for detection of certain species (that is, nocturnal, underground-living, or seasonal species) certain focused surveys would be required. We feel that, as PSBS expressed, their research and literature review adequately predicted the potential for occurrence of sensitive vertebrate species.

Vegetation mapping and sensitive plant surveys were conducted by W. Larry Sward and Brenda Stone of SEB in June and July of 1995. Vegetation was mapped with the aid of a color aerial photograph and a topographic map of the same scale. Rare plant surveys focused on native and naturalized habitats. An oak inventory was completed in 1994 (PSBS 1994)

and then updated by SEB in 1995 to assess specific impacts under this revised Project. Additional vegetation mapping for certain areas off site were completed in 1996 by Scott Taylor of SEB.

On June 28, 1994, PSBS documented the presence of the Riverside fairy shrimp and the potential for additional fairy shrimp in the ponds on site. On October 12, 1994, Barry Jones and Scott Taylor of SEB and Phil Behrens of Dudek and Associates assessed the site for potential corridors. W. Larry Sward and Deborah Pudoff performed a wetland delineation on August 8 and 9, 1995 in accordance with the 1987 U.S. Army Corps of Engineers (ACOE) Wetlands Delineation Manual (Environmental Laboratory 1987). This delineation took place within the development portion of the site including the remedial grading zone.

On April 9, 1996 a survey for western spadefoot (*Spea hammondi*) was conducted in all the ponds on site by Scott Taylor of SEB. Ponds were examined for the presence of tadpoles and any tadpoles were dipnetted, identified, and subsequently released. On April 3, 5, and 9, 1996 the site was surveyed for the presence of the Quino checkerspot (*Euphydras editha quino*) by John Brown, Ph.D. of Dudek and Associates, and Scott Taylor and Brenda Stone of SEB. Butterfly surveys were conducted primarily by the use of binoculars, although 12-inch cloth nets were carried as well.

Nomenclature for this report is from the following sources: flora - Hickman (1993) and Skinner and Pavlik (1994); vegetation communities - Gray and Bramlett (1992) and Holland (1986); amphibians and reptiles - Collins (1990); birds - American Ornithologist Union (1983); and mammals - Jones, et al. (1992). Sensitive animal and plant nomenclature and status are taken from the California Department of Fish and Game (CDFG) (1992; 1994) and Skinner and Pavlik (1994).

An abby also occurs just off site in the northwest corner while a monastery occurs just off site of the southeast corner.

Three large blocks of designated open space occur within the site's vicinity. O'Neill Regional Park abuts the site on the south while the Cleveland National Forest occurs off site to the north and east. Another large block of open space, Whiting Ranch Regional Park, occurs to the west. Part of Whiting Ranch Regional Park lies directly across El Toro Road from the Project site, while the remaining larger block of open space in Whiting Ranch Regional Park is to the west on the opposite side of intervening residential development. Site elevation ranges from 1,000 feet to 1,544 feet above mean sea level.

SOILS

Soils on site consist primarily of clay loams. Several pockets of sandy loam occur in the drainages, and true clay soils occur in a few scattered areas throughout the site. The clay loams that dominate the site, especially on the hill tops and along the gentler sloping areas, are of the Calleguas and Balcom series. The other series occurring on site are Basamo Clay, Alo Clay, and the Myford Sandy Loam series.

EXISTING CONDITIONS

VEGETATION COMMUNITIES

Five types of native vegetation occur on the Saddleback Meadows site: Venturan-Diegan transitional coastal sage scrub, coast live oak woodland, southern sycamore riparian woodland, mule fat scrub, and southern mixed chaparral (Figure 5). Portions of the Venturan-Diegan transitional coastal sage scrub are disturbed. Annual grassland, agricultural land, and manmade stock ponds (ephemeral ponds) also occur on the site (Figure 5). The ponds on site are not vernal pools because of their morphology and plant associates (see following text).

Table 1

SUMMARY OF VEGETATION COMMUNITIES ON SADDLEBACK MEADOWS

VEGETATION COMMUNITY	ACREAGE*
Venturan-Diegan transitional coastal sage scrub	64.8
Disturbed Venturan-Diegan transitional coastal sage scrub	2.3
Coast live oak woodland	14.5
Southern sycamore riparian woodland	0.5
Mule fat scrub	2.9
Southern mixed chaparral	5.4
Annual grassland	125.3
Agriculture	4.6
Ephemeral ponds	0.8
Disturbed	1.1
TOTAL	222.2

*Acreage is approximate.

VENTURAN-DIEGAN TRANSITION COASTAL SAGE SCRUB

Coastal sage scrub is found in coastal areas of California from the San Francisco Bay Area to the Mexican border, and beyond. The coastal sage scrub plant community is composed of low statured, drought-deciduous shrubs. Four floristic associations are recognized in distinct

LEGEND

CSS	Venturan-Diegan Transitional Coastal Sage Scrub
CSS-D	Venturan-Diegan Transitional Coastal Sage Scrub-Disturbed
OW	Coast Live Oak Woodland
SW	Southern Sycamore Riparian Woodland
MFS	Mulefat Scrub
SMC	Southern Mixed Chaparral
EP	Ephemeral Ponds
AG	Annual Grassland
CULT	Agricultural
DIS	Disturbed
RUD	Ruderal

SENSITIVE ANIMALS

* Riverside Fairy Shrimp
Streptocephalus woottoni

▲ Coastal Whiptail
Cnemidophorus tigris multiscutatus

■ Cactus Wren
Campylorhynchus brunneicapillus

Southern California Rufous-Crowned Sparrow
Aimophila ruficeps canescens

◆ Cooper's Hawk
Accipiter cooperii

△ Orangethroat Whiptail
Cnemidophorus hyperythrus beldingi

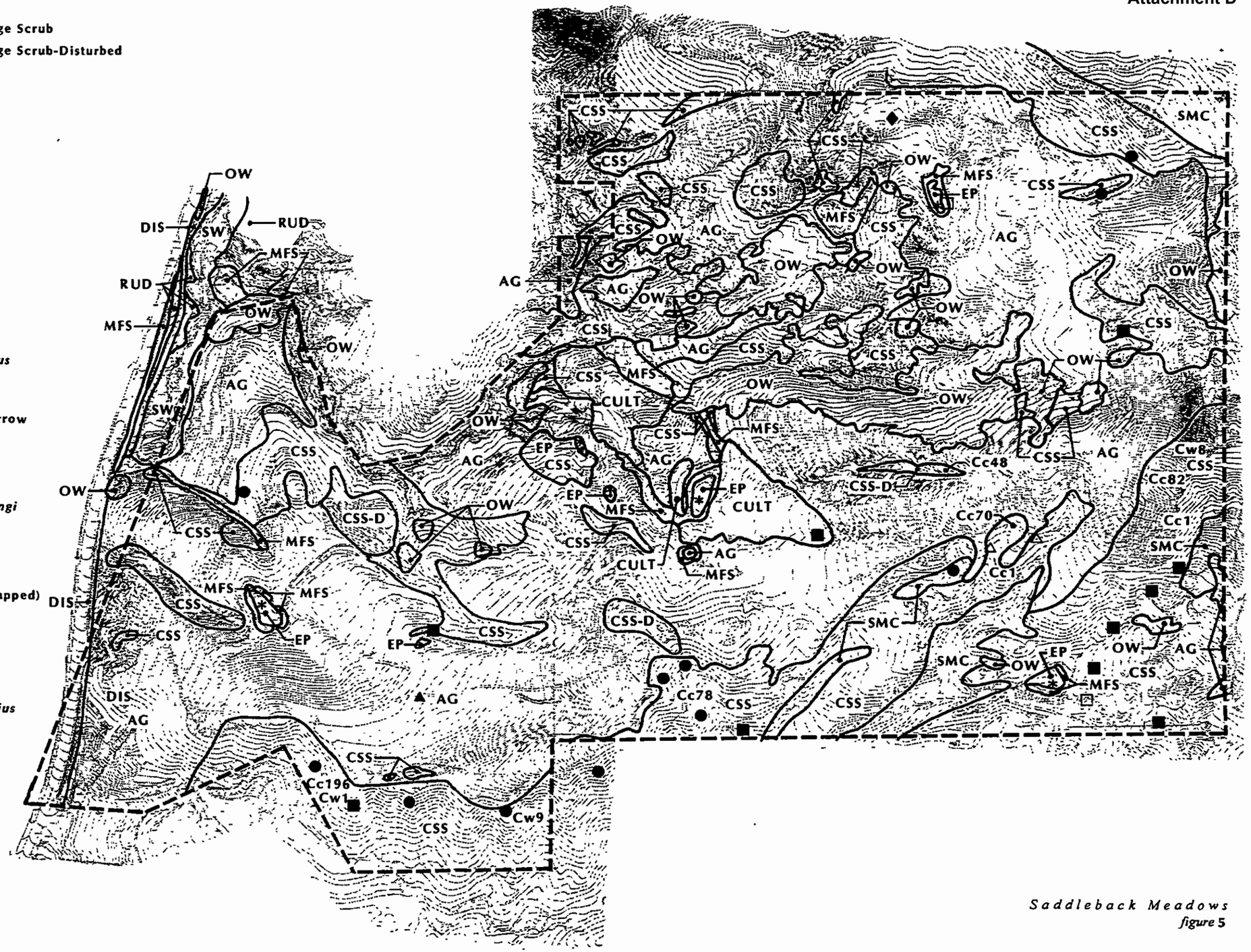
□ Western Spadefoot
Spea hammondi

Loggerhead Shrike
Lanius ludovicianus
(observed by PSBS in 1989, not mapped)

SENSITIVE PLANTS

Cc Catalina Mariposa Lily
Calochortus catalinae

Cw Intermediate Mariposa Lily
Calochortus weedii ssp. intermedius



north

0 400 800 feet

February 21, 1997

Saddleback Meadows
figure 5

Vegetation and Sensitive Resources

prepared by: Sweetwater Environmental Biologists, Inc.

geographical areas along the California coast with the Diegan association occupying an area from Orange County to northwestern coastal Baja California, Mexico (O'Leary 1990). The Venturan association occupies an area from San Luis Obispo County to Orange County. Venturan-Diegan transitional coastal sage scrub is found throughout Orange County and is a transitional scrub community between two floristic associations of coastal sage scrub: Venturan and Diegan. Approximately 67.1 acres of this plant community occur on site, 2.3 acres of which is disturbed.

Some of the typical plants found within the Venturan-Diegan transitional coastal sage scrub on site include California sage brush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), black sage (*Salvia mellifera*), and coastal prickly-pear (*Opuntia littoralis*). Disturbed portions of Venturan-Diegan transitional coastal sage scrub (2.3 acres) have a higher component of annual grasses and noticeably less shrub cover than undisturbed Venturan-Diegan transitional coastal sage scrub areas. Much of the Venturan-Diegan transitional coastal sage scrub on site is unconnected and subject to continued degradation because of previous and continued cattle grazing.

COAST LIVE OAK WOODLAND

Coast live oak woodlands occur in the outer portion of the central California coastal mountain ranges and extend south into Baja California, Mexico occurring between 500 and 4,500 feet in elevation. The dominant plant in this oak woodland are coast live oaks (*Quercus agrifolia*), which typically reach a height of 12 to 70 feet, forming an incompletely closed canopy, with an understory herbaceous layer approaching 80 percent cover.

On Saddleback Meadows, coast live oak woodland is found mainly along moderate, north-facing slopes and in ravines. Areas within small drainages or swales (central portion of the site) have the most dense canopy. The understory is, for the most part, dominated by annual grassland and has been heavily grazed, making the woodland of an overall moderate quality.

The ongoing grazing is precluding natural recruitment of new seedlings in the oak woodlands. Approximately 14.5 acres of coast live oak woodland occur on site.

SOUTHERN SYCAMORE RIPARIAN WOODLAND

Southern sycamore riparian woodland is composed of tall, open, broad-leaved, winter-deciduous trees that require water near the soil surface. Western sycamore (*Platanus racemosa*) is the dominant species forming an open, medium height woodland. Associated understory species include mule fat (*Baccharis salicifolia*), Mexican elderberry (*Sambucus mexicana*), and poison oak (*Toxicodendron diversilobum*). This habitat occurs along very rocky streambeds subject to seasonally high-intensity flooding (Holland 1986) and occurs along large intermittent streams in Orange County. An estimated 0.5 acre of this habitat occurs along Aliso Creek near El Toro Road on the western boundary of the site.

MULE FAT SCRUB

Mule fat scrub is a depauperate, tall, herbaceous, riparian scrub community that often occurs along intermittent stream channels but is also found around ponds or other wet areas. This early seral community thrives in areas that are subject to disturbances (for instance, by flooding); the absence of which could lead to a riparian woodland or forest (Holland 1986). On the site it occurs on fringes of the manmade stock ponds and in areas where there is not enough water to support riparian tree species. Approximately 2.9 acres of mule fat scrub occur on site.

SOUTHERN MIXED CHAPARRAL

Southern mixed chaparral is composed of deep-rooted shrubs that are usually not deciduous and grow to about 6 to 10 feet tall forming dense, often nearly impenetrable, stands. The plants of this association typically include lemonadeberry (*Rhus integrifolia*), toyon (*Heteromeles arbutifolia*), chamise (*Adenostoma fasciculatum*), and mission manzanita

(*Xylococcus bicolor*). Southern mixed chaparral occurs on canyon slopes in the extreme northeast and southeast quadrants of the site. Approximately 5.4 acres of southern mixed chaparral occur on site.

ANNUAL GRASSLAND

Annual grassland is a dense to sparse cover of mostly non-native grasses, often associated with numerous species of showy-flowered, annual forbs. This association occurs on gradual slopes with deep, fine-textured soils. Characteristic species include oats (*Avena* sp.), red brome (*Bromus madritensis* ssp. *rubens*), ripgut (*B diandrus)*, and mustard (*Brassica* spp.). Cardoon (*Cynara cardunculus*) is dominant in some areas on site while virtually lacking in others. In conjunction with agriculture and grazing in California, many of these plants were imported. Annual grassland is in every quadrant of the site, but the most dense coverage is on the less steeply sloped portions of the western half of the site. Approximately 125.3 acres of annual grassland occur throughout the site.

AGRICULTURE

Agriculture in the form of olive trees (*Olea europaea*) is found in the central portion of the site. Approximately 4.6 acres of agriculture occur on site.

EPHEMERAL PONDS

All of the ponds appear to have been artificially created with earthen dams a number of years ago to provide water for cattle. The earthen dams of two of the ponds have breached, and as a result, no longer retain water. Existing use of the ponds by cattle severely impact vegetation and water quality. Seven existing and two former ponds occur on site. The seven existing ponds total 0.8 acre in size. The smaller of the two former ponds lacks significant vegetation in the bottom of the pond, but it is still rimmed with mule fat scrub. The larger pond still supports mule fat scrub.

None of the plant species observed in the ponds are primarily or typically found in vernal pools in southern California. Several species observed on site can occur in vernal pools but typically occur elsewhere. These species include salt-grass (*Distichlis spicata*) and curly dock (*Rumex crispus*). Salt-grass is a species typically found in salt marshes, and moist, alkaline areas. Curly dock is a species typically found in disturbed places. The typical habitats of the plant species observed in or near the ponds include fresh or salt water marsh, riparian, moist places, and disturbed areas.

Based on the absence of vernal pool indicator species and the presence of species typically found in other wetland or disturbed habitats, the vegetation of the ponds is atypical of vernal pools. We regard this conclusion with a fairly high degree of certainty because of the timing of the field observations (June and July). This timing will have facilitated observing vernal pool species which may occur in standing water and the drying pool beds.

The physical setting of these ponds also differs from most other southern California vernal pools (Zedler 1987). Vernal pools typically occur on relatively flat mesas, situated in low lying areas between small mounds. This contrasts sharply with the lay of the land on site where few areas are flat. Furthermore, the ponds do not occur in the few flat areas. They occur primarily in drainages which have been dammed and support a low species diversity and high percentage of weed species. We conclude based on vegetation, species composition, and physical setting that these ponds are not vernal pools. However, six of the existing ponds and two former ponds contained Riverside fairy shrimp (*Streptocephalus woottoni*). Although recently the USFWS recorded the Riverside fairy shrimp near El Toro, the occurrence of these shrimp on the site may be an anomaly because the ponds appear to have been artificially created. One possible theory is that cattle rotated between grazing areas with vernal pools in Riverside County and grazing areas on site, transferring fairy shrimp eggs to the ponds. The actual circumstances resulting in their occurrence on site is a matter of speculation and will likely never be known.

DISTURBED

A portion of the site is considered disturbed, which includes roads or other paved areas. Approximately 1.1 acres of disturbed areas occur on site.

PLANTS

A total of 110 plant species, 73 (66 percent) of which are native, were observed during surveys by PSBS (1993; 1994) and SEB. The presence of 39 non-native plant species on the Project site reiterates the disturbed nature of most of the site. A common plant species in much of the site is the cardoon, an artichoke-like plant that grows in areas where soils, especially clay soils, have been highly disturbed and compacted. This aggressive plant species often dominates areas that have been heavily grazed. Undisturbed native vegetation communities on steeper slopes of the site support a typical diversity of plant species common to central Orange County. Overall the plant diversity on site, however, appears to be somewhat limited. Appendix A provides a complete list of all plant species observed.

ANIMALS

A total of 63 animal species were observed during the surveys by PSBS (1993;1994) and SEB. The animal species observed represent a somewhat lower diversity than is usually observed in the western foothill region of the Santa Ana Mountains, probably due to the disturbed nature of the site and the presence of both cattle and man. For a complete listing of animal species observed see Appendix B.

INVERTEBRATES

Both the native and non-native plant communities on site probably play host to a wide variety of invertebrate species, especially insects. Invertebrates are important features of an ecosystem because of their role in food chains and as decomposers. Specific surveys for

invertebrates focused on the presence of Riverside fairy shrimp, which were known to occur on site. Hundreds of additional invertebrates are expected to use the site.

VERTEBRATES

Amphibians

No amphibians were observed during site surveys. At least two species, the black-bellied salamander (*Batrachoseps nigriventris*) and California slender salamander (*Batrachoseps attenuatus*), are expected to occur. The disturbed conditions that exist throughout most of the site have likely restricted these species to the steeper slopes where vegetative coverage is most dense.

Reptiles

Four reptiles—the western fence lizard (*Sceloporus occidentalis*), coastal whiptail (*Cnemidophorus tigris multiscutatus*), orangethroat whiptail (*Cnemidophorus hyperythrus beldingi*), and side-blotched lizard (*Uta stansburiana*)—were observed on site. Although the site has many disturbed areas, reptile habitat still occurs throughout the site. Additional lizards and snakes would be expected, especially in the undisturbed portions of Venturan-Diegan transitional coastal sage scrub on the steeper slopes.

Birds

Birds were most abundant and conspicuous (50 species) during the surveys, and undoubtedly exhibit the highest vertebrate diversity. Most of the birds were observed within the Venturan-Diegan transitional coastal sage scrub, southern mixed chaparral, and coast live oak woodland habitats on site. A few of the resident birds which were most abundant on site include California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), California towhee (*Pipilo crissalis*), house finch

(*Carpodacus mexicanus*), and lesser goldfinch (*Carduelis psaltria*). Other bird species were observed foraging on the site but probably reside elsewhere including cliff swallows (*Hirundo pyrrhonota*), northern rough-winged swallows (*Stelgidopteryx serripennis*), red-tailed hawks (*Buteo jamaicensis*), and American kestrels (*Falco sparverius*). A barn owl (*Tyto alba*) was observed nesting in the coast live oak woodlands possibly as recently as 1989.

Mammals

Eight mammals were detected on site including the California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), woodrat (*Neotoma* spp.), coyote (*Canis latrans*), bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*), mule deer (*Odocoileus hemionus*), and domestic cattle. Several rodents and additional medium-sized mammals are expected to use the site as well. Some expected but unobserved species include the Virginia opossum (*Didelphus virginiana*), striped skunk (*Mephitis mephitis*), and deer mouse (*Peromyscus maniculatus*). Many of the species which may occur were not observed during the diurnal surveys because they are nocturnal.

CORRIDOR ISSUES AND CONNECTIVITY

This section presents biological resource issues within the broader context of the region, including considerations such as corridors, preserve design, and other regional considerations. Due to the rapid urbanization and associated habitat loss in coastal southern California (in combination with the fact that this region supports such a unique biota), development of reserves that preserve and maintain the natural ecological communities has become an important planning goal.

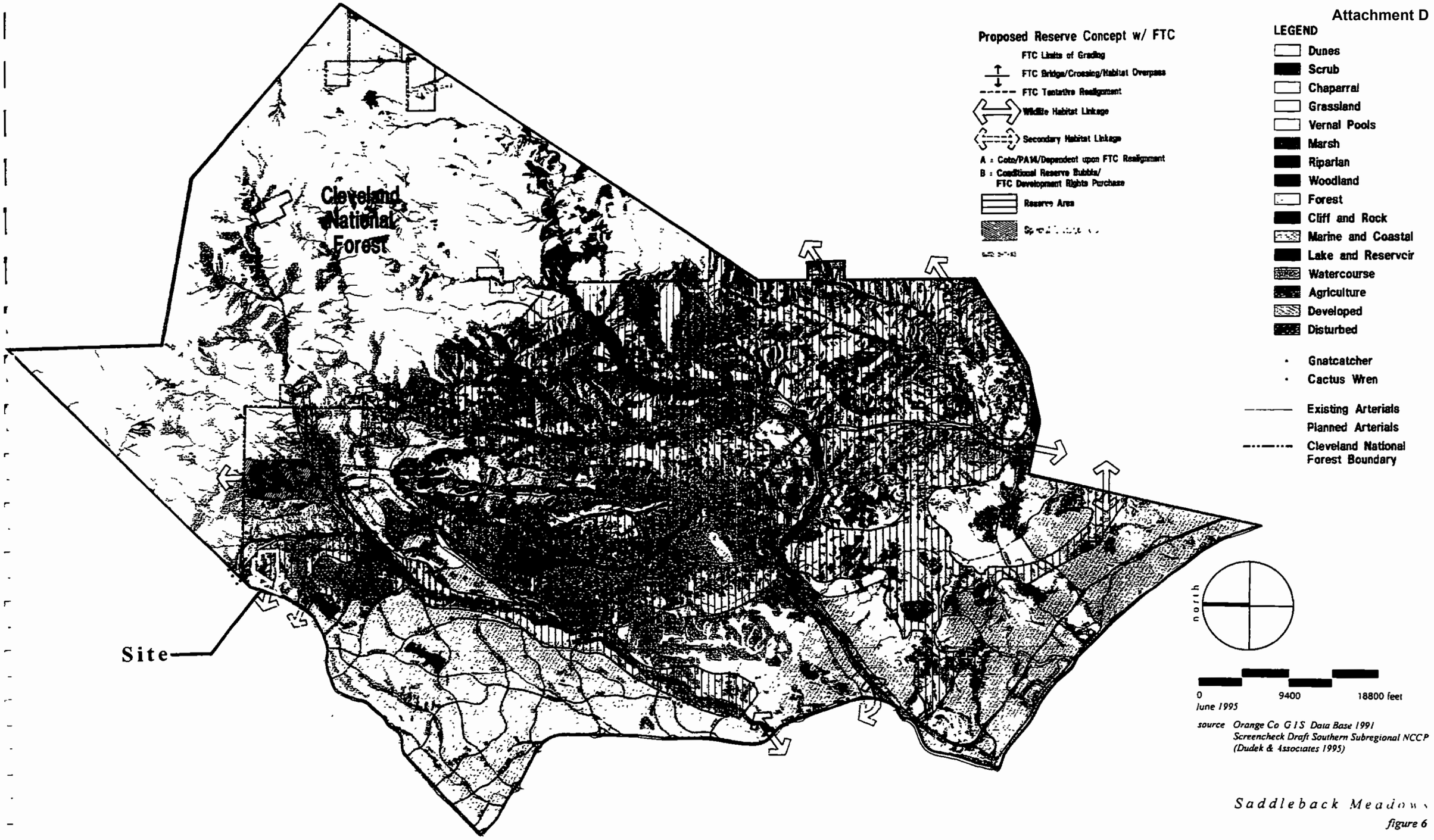
Connectivity between individual reserves is important for maintaining a diversity of species in a reserve system (Harris and Scheck 1991). Where connectivity is lacking, isolated islands of habitat are created. These islands often no longer support the diversity of species that could once

be supported prior to the isolation event. The most prominent threats facing populations in fragmented and isolated habitats are greater vulnerability to local extinction and genetic isolation (inbreeding). Adequate landscape linkages (for example, corridors) between native habitat areas ameliorate the situation by decreasing or eliminating the likelihood of these two threats.

Based on the results of a study in San Diego County for Otay Ranch, Ogden Environmental and Energy Services (Ogden) developed criteria for corridor design in developed areas (Ogden 1992). These criteria state that an ideal corridor has at least 500 feet of vegetative cover with 250 foot native vegetation buffers. Where development is not visible from the corridor (for instance in a deep gully), a narrower buffer would be acceptable. In instances where corridors are less than 500 feet long, the corridor should be no less than 400 feet in total width. At interfaces with developed areas, vegetative or opaque fencing is recommended to reduce visibility of developed areas from the corridor.

As noted earlier, Orange County is developing its NCCP preserve system in accordance with CDFG enrollment. The primary goal of this preserve system is to maintain large blocks of habitat that support viable ecosystems, and to link these large blocks via wildlife corridors. The developed areas in the vicinity of the Project limit the wildlife corridor options. Open space configuration in the vicinity of the Project is a key planning element for the Orange County NCCP preserve area (Figure 6).

Effective wildlife corridors serve all animals, from small mice or lizards up to large deer. Because of the topography and the disturbed nature of the site, and because of the existing open space and development patterns in the Project site's vicinity, the site alone could not serve to fill all of the wildlife corridor needs in the area. Three corridors have been identified in the area (Figure 7) to facilitate movement of wildlife. One would extend through the site (Central Corridor) to facilitate all wildlife except for large mammals. A second corridor would occur to the south (Southern Corridor) of the site to facilitate movement of the coastal California gnatcatcher. And a third corridor (Northern Corridor) would occur to the north of the site to facilitate large mammal movement.

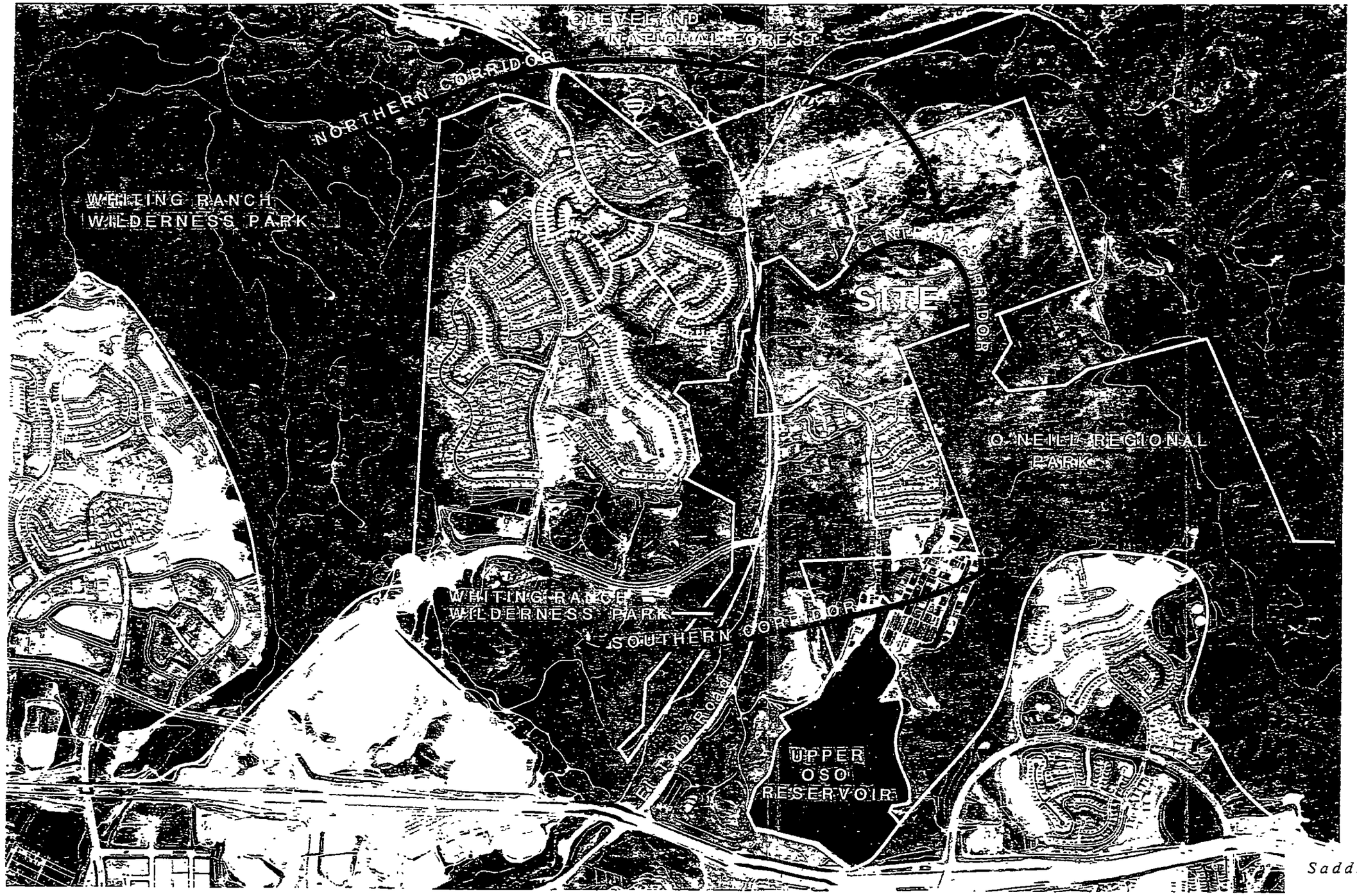


Saddleback Meadows

figure 6

Location within the NCCP Subregional Preserve

prepared by: Sweetwater Environmental Biologists Inc



Saddleback Meadows
figure 7

Vertical Aerial showing adjacency to O'Neill Regional Park, Whiting Ranch Wilderness Park and Cleveland National Forest

prepared by Sweetwater Environmental Biologists, Inc

The Central Corridor runs from the southern boundary of the Saddleback Meadows property which borders O'Neill Regional Park to Aliso Creek on the western site boundary. It follows a large drainage which demarcates part of the northern boundary of the site until it reaches the western boundary at El Toro Road. The Southern Corridor runs from O'Neill Regional Park, passes the northern end of Oso Reservoir and the Hidden Ridge development through a flat alluvial area currently in use as a nursery, then crosses a ridge and El Toro Road to enter the contiguous open space of Whiting Ranch Wilderness Park and the Edison parcel. The Northern Corridor extends northward from O'Neill Regional Park, along the eastern boundary of Saddleback Meadows. It then proceeds west to cross a portion of the Cleveland National Forest, then runs north/south across El Toro Road and Live Oak Canyon Road where it connects with Whiting Ranch Wilderness Park. All three corridors cross El Toro Road, but only the Central Corridor (on site) will benefit from two existing undercrossings that facilitate some animal movement, although neither one is suitable for large mammals such as mountain lion or mule deer.

The Central Corridor has three important features contributing to its ability to serve as a wildlife corridor: a major drainage through the property, contiguity with O'Neill Regional Park, and existing undercrossings of El Toro Road that facilitate animal movement along the Aliso Creek drainage. The undercrossings consist of several 7-foot diameter corrugated pipes that extend at an angle for approximately 300 feet underneath the road and a second perpendicular undercrossing of a corrugated pipe approximately 10-feet high and 15-feet across. Although the size and shorter length of the larger undercrossing will typically make this a preferred option for most wildlife, access by larger mammals is restricted by fencing and the cement-lined bottom. Preliminary data (Phil Behrens, pers. comm.) suggests that small mammals use the corrugated pipe undercrossings to some extent, and that Aliso Creek is a key wildlife movement corridor from the existing open space east and south of Saddleback Meadows to the Edison property to the west.

Any corridor on site (including the Central Corridor) will not likely serve as a primary corridor for the gnatcatcher. There are no known sightings of gnatcatchers on Saddleback

Meadows. Habitat immediately west of the site is primarily riparian or non-native vegetation. Venturan-Diegan transitional coastal sage scrub habitat is confined to a slope area on the western portion of the site near El Toro Road, along the slopes adjacent to the Central Corridor, and in the southern portion of the site. Therefore, although gnatcatchers at least have the potential to use this corridor, the Central Corridor was deemed most suitable for some birds and most small- to medium-sized mammals.

The Southern Corridor may be the most significant corridor for the gnatcatcher because of the presence of existing Venturan-Diegan transitional coastal sage scrub occupied by the gnatcatcher. The Southern Corridor will cross an area at the northern end of Oso Reservoir that has little native habitat, except in two drainages leading to the reservoir. This corridor could be dramatically enhanced by reconfiguring and revegetating portions of the nursery with native habitats. The ridge that intervenes between El Toro Road and Oso Reservoir supports Venturan-Diegan transitional coastal sage scrub and non-native grassland habitats. Although the eastern side of the intervening ridge line is steep, it is not assumed to prohibit bird movement. There is no undercrossing at El Toro Road, and given the terrain, it will be impractical to construct one; however, because this corridor is likely most important for gnatcatcher movement, road crossings are a secondary issue.

The Northern Corridor, through the Cleveland National Forest, is at a higher elevation than Saddleback Meadows, is steep, and supports mostly chaparral vegetation. Gnatcatchers are expected to make little use of this area due to the physiognomic setting and vegetation; however, there should be no such restriction on mountain lion and other large mammal movements. No undercrossings of El Toro Road occur along this corridor but planned road improvements may present opportunities for the construction of undercrossings.

It is beyond the scope of the Project to establish either the Southern or Northern corridors. However, because the proposed corridor areas are still undeveloped, opportunities still exist through the NCCP process to ensure the three identified corridors can function as a wildlife corridor unit and help meet the goals of the County of Orange's NCCP subregional design.

SENSITIVE RESOURCES

The following is a description of sensitive biological resources found on Saddleback Meadows. Where impacts to these resources occur, mitigation may be required as discussed in the Mitigation Section of this report.

HABITATS

Venturan-Diegan Transitional Coastal Sage Scrub

Venturan-Diegan transitional coastal sage scrub is a sensitive habitat because it supports a number of state and federally listed endangered, threatened, and rare vascular plants as well as several reptile, bird, and mammal species that are federally listed or are candidate species for federal listing. Loss estimates for coastal sage scrub habitat in California range from 36 to 85 percent, but since these estimates were made in 1979 to 1981, additional losses have since accrued (O'Leary 1990). The primary cause for the loss of coastal sage scrub within California have been habitat conversion to agriculture and urban development.

The fragmented nature of much of the Venturan-Diegan transitional coastal sage scrub on site makes it low quality. The highest quality Venturan-Diegan transitional coastal sage scrub occurs on the steep slopes that connect with O'Neill Regional Park in the southeast quadrant of the site. This area supports the highest native plant component and the highest diversity of animal species.

According to the NCCP Evaluation Logic Flow Chart, the Venturan-Diegan transitional coastal sage scrub on the Project site has intermediate value for long-term conservation because although it is not the most dense coastal sage scrub in the region, it is located next to a higher value district (O'Neill Regional Park and Whiting Ranch Regional Park).

Coast Live Oak Woodland

Coast live oak woodland and individual oaks are protected by the tenets of CEQA because of their scarcity, wildlife values, and ability to provide watershed protection. The major factors contributing to the decline of oak woodlands in southern California include livestock grazing, recreational use, and urban and rural developments. The coast live oak woodland on site is of moderate quality because of the extensive grazing which has eliminated the natural understory.

An oak tree inventory was completed by PSBS (PSBS 1994) and updated by SEB (SEB 1995) to document the number of oaks present on site and the number to be impacted by the Project.

Southern Sycamore Riparian Woodland

Southern sycamore riparian woodland is sensitive because it is a riparian habitat. Riparian habitats serve as movement corridors, water sources, shelter/shaded areas, and the unique microclimate supports a variety of wildlife. Many birds and amphibians are completely restricted to riparian habitats and are dependent on them for breeding. Animals also move back and forth across riparian habitats into adjacent upland or wetland habitats. Riparian systems are intimately linked with adjacent upland areas, and many species that are restricted to riparian habitats for breeding use upland areas surrounding riparian habitats for foraging. In addition, several insect and plant species are restricted to riparian habitats.

Riparian communities are protected by the ACOE (Section 404 of the Clean Water Act) and CDFG (Streambed Alteration Agreement) because of their wetland values. Under CEQA, riparian communities are protected because they are declining habitats that support sensitive species and serve in many instances as a wildlife corridors.

Ephemeral Ponds

Although this community by itself is not sensitive, it is recognized as sensitive in this case because it supports the Riverside fairy shrimp, a federally listed endangered species.

Wetlands and Waters of the U.S.

These areas are regulated by the CDFG and the ACOE. On site, Waters of the U.S. occur in manmade stock ponds and intermittent streams that cross several areas of the site. Wetland habitat, under CDFG jurisdiction, is associated with southern sycamore riparian woodland, mule fat scrub, and ephemeral ponds.

SENSITIVE PLANTS

Two sensitive plants, Catalina mariposa lily (*Calochortus catalinae*) and intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), were detected on site (Figure 3).

Catalina mariposa lily

Listing: USFWS: None; CDFG: None; CNPS: List 4, 1-2-3

Distribution: This species is distributed in all coastal counties from Santa Cruz County to San Diego County, except Monterey County.

Habitat(s): The Catalina mariposa lily grows on heavy soils, usually in open grassland or shrubland.

Status On Site: Eight stands were detected by SEB (435 individuals), six of which (428 individuals) were in Venturan-Diegan transitional coastal sage scrub along the southern boundary of the site. The two additional stands (seven individuals) were in Venturan-Diegan transitional coastal sage scrub patches in the northeastern quadrant of the site.

Intermediate mariposa lily

Listing: USFWS: Regionally sensitive; CDFG: None; CNPS: List 1B, 2-2-3

Distribution: This mariposa lily has only been recorded from Los Angeles, Orange, and Riverside counties.

Habitat(s): Dry, rocky slopes are the habitat of this species.

Status On Site: Three stands were detected by SEB totaling 18 individuals. Two stands are in the southwest quadrant, while the remaining stand is in the southeast quadrant.

Since the surveys had adequate coverage to detect potentially occurring sensitive plant species, no additional sensitive plant species are expected to occur on site. The plants which were determined originally to have a potential to occur on site included Palmer's grappling-hook (*Harpogonella palmeri*), many-stemmed dudleya (*Dudleya multicaulus*), and prostrate spineflower (*Chorizanthe procumbens*).

SENSITIVE ANIMALS

Eight sensitive animals were observed during the surveys by PSBS (1993; 1994) and SEB (Figure 3): Riverside fairy shrimp, western spadefoot, coastal whiptail, orangethroat whiptail, Cooper's hawk (*Accipiter cooperii*), cactus wren (*Campylorhynchus brunneicapillus*), loggerhead shrike (*Lanius ludovicianus*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). No coastal California gnatcatchers occur on site.

Riverside fairy shrimp

Listing: USFWS Endangered

Distribution: Extremely limited distribution in Riverside, Orange, and San Diego counties; and northern Baja California, Mexico. In Orange County, known from two locations, in Riverside County, known only from five vernal pools, in San Diego County, known only from two vernal pool complexes.

Habitat(s): Vernal and ephemeral pool habitats that are relatively deep and have low values for alkalinity and chloride presence. The Riverside fairy shrimp is a warm water species of fairy shrimp, and it hatches at water temperatures of 15 to 17 °C.

Status On Site: Six of the ponds and two recently dried ponds (their dams have been breached) have evidence of Riverside fairy shrimp. These locations represent a significant expansion of the shrimp's typical habitat range.

Western spadefoot

Status: USFWS Regionally sensitive

Distribution: California's Central Valley and San Francisco Bay area south along the coast to northwestern Baja California, Mexico.

Habitat: Mesa tops, valleys, low hills, floodplains, and washes. Southern California habitats include coastal sage scrub, chaparral, and grassland. Important habitat components include temporary pools (which form during winter and spring rains) for breeding and friable soils for burrowing.

Status On Site: During focused surveys, western spadefoot tadpoles were observed in two of the ephemeral ponds on site.

Coastal whiptail

Status: USFWS Regionally sensitive

Distribution: Ventura County south, in cismontane California, to south-central Baja California, Mexico.

Habitat: Open Venturan-Diegan transitional coastal sage scrub, grasslands, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing habitat. Important habitat components include open, sunny areas for basking, plant litter, and an abundance of invertebrate prey, particularly termites (*Reticulitermes* sp.).

Status On Site: A solitary individual was observed by PSBS.

Orangethroat whiptail

Status: USFWS: Regionally sensitive; CDFG CSC

Distribution: Southern Orange County and southern San Bernardino County (Colton), south to the cape of Baja California, Mexico.

Habitat: Venturan-Diegan transitional coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include a mosaic of open, sunny areas and shade for thermoregulation, and an abundant invertebrate prey base, particularly termites.

Status On Site: Two individuals were observed by SEB on a slope in the southeast quadrant adjacent to O'Neill Regional Park.

Cooper's hawk

Status: Nesting—CDFG CSC

Distribution: Throughout the continental U.S. excluding Alaska, parts of Montana, and parts of the Dakotas. Winters south to Mexico and Honduras.

Habitat: In San Diego County tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrublands or fields.

Status On Site: One individual was observed by PSBS hunting in grassland on the northern half of the site.

Cactus wren

Status: USFWS Regionally sensitive/CDFG CSC

Distribution: Southern Orange County (San Juan Creek) south through San Diego County into northwestern Baja California, Mexico.

Habitat: Restricted to clumps of prickly-pear (*Opuntia littoralis and O. oricola*) or cholla (*O. prolifera*) growing in Venturan-Diegan transitional coastal sage scrub or along washes.

Status On Site: Ten individuals were observed by PSBS in the southern half of site, with most (seven) occurring on the slopes contiguous with habitat in O'Neill Regional Park.

Loggerhead shrike

Status: CDFG CSC

Distribution: Widespread, but declining, throughout North America. Winters south to Central America.

Habitat: Open habitats including grasslands, scrublands, and ruderal areas with adequate perching locations.

Status On Site: Observed by PSBS in 1989 but not mapped (PSBS 1993).

Southern California rufous-crowned sparrow

Status: USFWS Regionally sensitive/CDFG CSC

Distribution: Ventura County southeast through Los Angeles, Orange, Riverside and San Diego counties to northwestern Baja California, Mexico.

Habitat: Mainly inhabit Venturan-Diegan transitional coastal sage scrub where it occurs on rocky hillsides and in canyons but also may be found in open sage scrub/grassy areas of successional growth (for example, after a fire).

Status On Site: Ten individuals were observed by PSBS on the southern half of the site, mostly (seven) on the slopes of habitat contiguous with O'Neill Regional Park. Two additional individuals occur just off site near the southern half of the site and in the northeast corner.

Several additional animal species may occur on site (see Table 2). The majority of these species have a low to moderate potential for occurring on site. None of the species warrant further surveys because of their low potential for occurrence, they are of a generally low level of sensitivity, and/or adequate mitigation can be accomplished by mitigating for their habitats.

Table 2

SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL FOR OCCURRENCE WITHIN THE SADDLEBACK MEADOWS SITE

SPECIES	STATUS*	POTENTIAL/HABITAT
Invertebrates		
Quino checkerspot *Euphydryas editha quino*	USFWS FE	Low; habitat highly variable, but primarily coastal sage scrub. Food plants (*Plantago* ssp.) present. Focused surveys were conducted but the species was not observed. This species is extremely rare in Orange County.
Reptiles		
San Diego horned lizard *Phrynosoma coronatum blainvillei*	USFWS Regionally sensitive CDFG CSC	High; chaparral, coastal sage scrub, food source (harvester ants [*Pogonomyrmex* sp.]) not seen but probably present. Focused surveys may be needed for detection but are not warranted. Expected but not seen during surveys.
San Diego ringneck snake *Diadophus punctatus similis*	USFWS Regionally sensitive CDFG CSC	Low to moderate; coastal sage scrub, chaparral, oak woodlands. Prefers moist habitats. Focused surveys needed for detection but are not warranted.
Coastal rosy boa	USFWS Regionally sensitive	Low; rocky areas in coastal sage scrub, chaparral, and cactus scrub. Focused surveys needed for detection but are not warranted.
Birds		
Prairie falcon *Falco mexicanus*	CDFG CSC	Low; an uncommon visitor to grasslands and scrublands of Orange County.
Northern harrier *Circus cyaneus*	CDFG CSC	Moderate; habitat includes open areas, such as grasslands, and adjacent habitats. Will have been observed if it consistently uses the site. Nevertheless, this raptor probably occurs in the site vicinity due to the amount of open habitat, especially to the southeast.
Burrowing owl *Speotyto cunicularia*	CDFG CSC	Low; often found in disturbed sites where ground squirrel burrows are present, but will have been observed if present.
Bell's sage sparrow *Amphispiza belli belli*	USFWS Regionally sensitive CDFG CSC	Low; habitat is coastal sage scrub and chaparral, not common and apparently absent from much of Orange County. Will likely have been detected if present.

Table 2 (cont.)

SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL FOR OCCURRENCE WITHIN THE SADDLEBACK MEADOWS SITE

Tricolor blackbird *Agelaius tricolor*	USFWS Regionally sensitive CDFG CSC	Moderate potential as a winter visitor and as a migrant; mostly in grasslands and ephemeral pond habitat.
Mammals		
Pallid bat *Antrozous pallidus pacificus*	CDFG CSC	Moderate; habitat highly variable, could forage throughout the site, but roosting sites are likely elsewhere. Focused surveys needed for detection but not warranted.
Greater western mastiff bat *Eumops perotis californicus*	USFWS Regionally sensitive CDFG CSC	Moderate; could forage in any habitat on site, but roosting sites are likely elsewhere. Focused surveys needed for detection but not warranted.
Dulzura California pocket mouse *Chaetodipus californicus femoralis*	USFWS Regionally sensitive CDFG CSC	Low to moderate; dense chaparral, but occasionally other shrublands. Trapping necessary for detection but not warranted.
San Diego desert woodrat *Neotoma lepida intermedia*	USFWS Regionally sensitive CDFG CSC	Moderate; woodrat sign was found, but it could have been dusky-footed woodrat. Habitat is coastal sage scrub and other dry habitats. Trapping necessary for detection but not warranted.

*Explanation of listing/sensitivity can be found in Appendix C.

IMPACTS

Two types of impacts will be assessed: direct and indirect. All areas to be modified, including remedial slopes and fuel modification zones will be interpreted as direct impacts. Fuel management zones are also considered direct impacts because most native vegetation will be removed. Both on- and off-site impacts are considered in this analysis.

Indirect impacts are impacts to the biological resources that result from adjacent direct impacts. Though these impacts may not initially be evident, over time they may occur due to the relative proximity of development or disturbance. Examples of indirect impacts include habitat fragmentation, habitat insularization, edge effect, exotic species invasion, lighting, domestic pet intrusion/predation, and increased human intrusion.

DIRECT IMPACTS

HABITATS

Of the 222.2 acres on the Project site, approximately 188.8 acres on site (85 percent) and approximately 17.4 acres off site will be directly impacted by Project development (Figure 8). A total of 33.4 acres (15 percent) of undeveloped land will remain in open space within the site. A summary of the impacts is found in Table 3.

Venturan-Diegan Transitional Coastal Sage Scrub

Approximately 44.2 acres (66 percent) of the Venturan-Diegan transitional coastal sage scrub will be directly impacted on site by the proposed Project, leaving 22.9 acres preserved. An additional 6.1 acres will be impacted off site. Most of these impacts will occur in isolated patches of habitat throughout the central portion of the site and along the fringes of the larger patches on site. All impacts to Venturan-Diegan transitional coastal sage scrub are significant.

LEGEND

CSS	Venturan-Diegan Transitional Coastal Sage Scrub
CSS-D	Venturan-Diegan Transitional Coastal Sage Scrub-Disturbed
OW	Coast Live Oak Woodland
SW	Southern Sycamore Riparian Woodland
MFS	Mulefat Scrub
SMC	Southern Mixed Chaparral
EP	Ephemeral Ponds
AG	Annual Grassland
CULT	Agricultural
DIS	Disturbed
RUD	Ruderal

SENSITIVE ANIMALS

* Riverside Fairy Shrimp
Streptocephalus woottoni

▲ Coastal Whiptail
Cnemidophorus tigris multiscutatus

■ Cactus Wren
Campylorhynchus brunneicapillus

Southern California Rufous-Crowned Sparrow
Aimophila ruficeps canescens

◆ Cooper's Hawk
Accipiter cooperii

△ Orangethroat Whiptail
Cnemidophorus hyperythrus beldingi

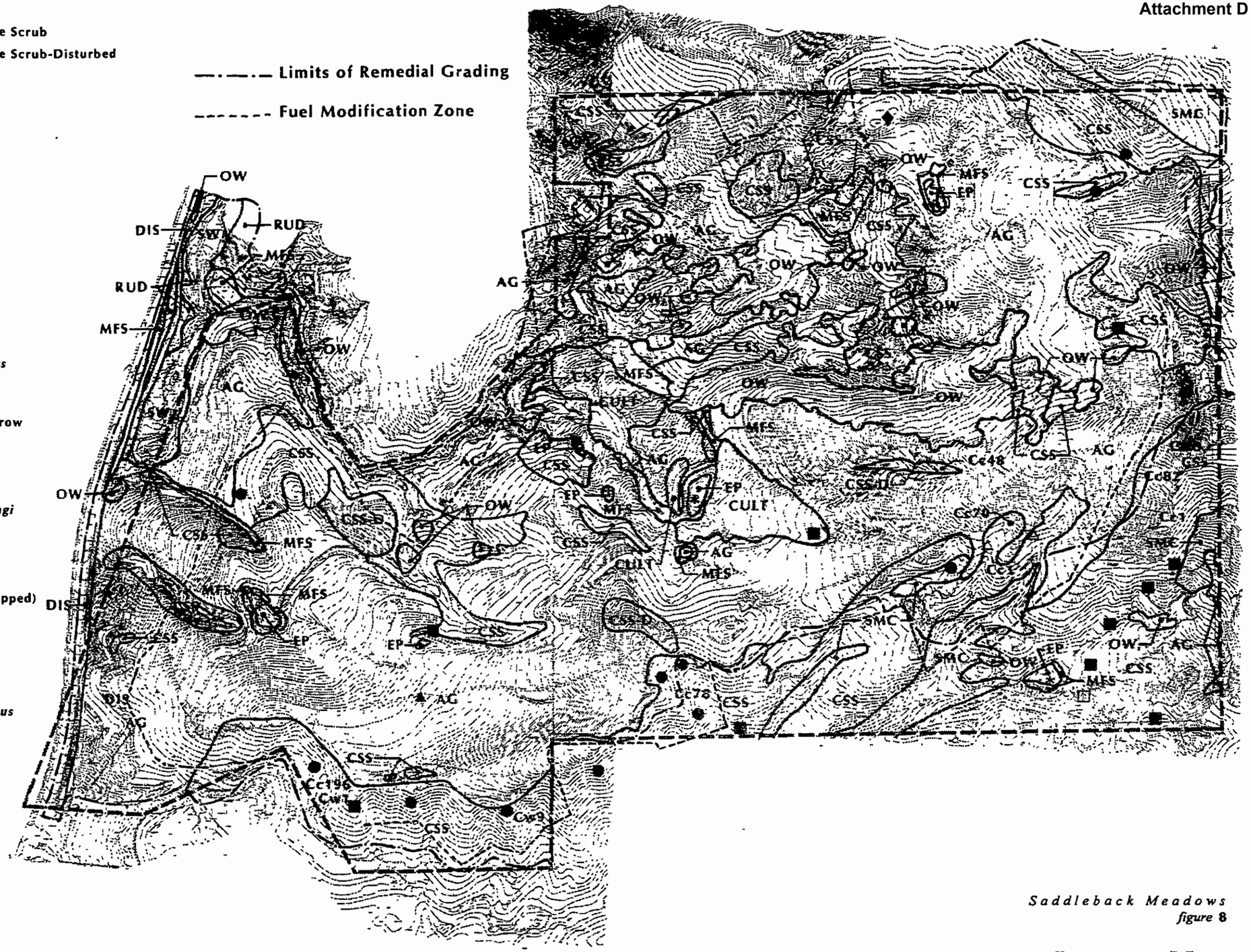
□ Western Spadefoot
Spea hammondi

Loggerhead Shrike
Lanius ludovicianus
(observed by PSBS in 1989, not mapped)

SENSITIVE PLANTS

Cc Catalina Mariposa Lily
Calochortus catalinae

Cw Intermediate Mariposa Lily
Calochortus weedii ssp. intermedius



Saddleback Meadows
figure **8**

Impact Map

prepared by: Sweetwater Environmental Biologists, Inc

Table 3

SADDLEBACK MEADOWS EXISTING VEGETATION AND PROJECT IMPACT

Habitat	Existing Acreage	On-Site Impacts	Percent Impact	Preserved On-Site	Percent Preserve	Off-Site Impacts
Venturan-Diegan transitional coastal sage scrub (disturbed and undisturbed)	67.1	44.2	66%	22.9	34%	6.1
Coast Live Oak Woodland (acreage/individuals)	14.5/298	14.0/284	97%	0.5/14	3%	0.6/5
Southern Mixed Chaparral	5.4	1.8	33%	3.6	67%	1.9
Southern Sycamore Riparian Woodland	0.5	0.5	100%	0.0	0%	2.8
Mule fat scrub	2.9	2.8	97%	0.1	3%	1.0
Ephemeral pond	0.8	0.6	75%	0.2	25%	
Annual grassland	125.3	119.2	95%	6.1	5%	2.4
Agriculture	4.6	4.6	100%	0.0	0%	
Disturbed	1.1	1.1	100%	0.0	0%	2.6
Total	**222.2**	**188.8**	**84%**	**33.4**	**16%**	**17.4**

Mule Fat Scrub and Southern Sycamore Riparian Woodland

Mule fat scrub (2.8 acres [97 percent]) will be impacted where it is associated with three of the ponds and in three intermittent streambeds. Southern sycamore riparian woodland (0.5 acre [100 percent]) will be impacted along the western boundary of the site by remedial grading. Off site, there will be impacts to 2.8 acres of southern sycamore riparian woodland and 1.0 acre of mule fat scrub. These impacts are significant because of the two habitats' values as wildlife habitats and because of their function as wetlands. Impacts to these habitats will require permitting as discussed below.

Coast Live Oak Woodland

A total of 14 acres (97 percent) of coast live oak woodlands (284 individuals) will be impacted by the proposed Project while 0.5 acres (14 individuals) will be preserved. Off site, there will be impacts to 0.6 acre of coast live oak woodlands (5 individuals). Impacts to oak woodlands are significant because of their wildlife values, their function in watershed protection and, in the case of Saddleback Meadows, their function as part of the planned NCCP regional wildlife corridor.

Ephemeral Ponds

The 0.6 acre of impact to manmade stock ponds is significant due to the presence of Riverside fairy shrimp. One ephemeral pond (0.2 acre) would be preserved in open space adjacent to O'Neill Regional Park. In addition, impacts to portions of this habitat will require permitting as discussed below because of its function under ACOE jurisdiction.

Wetlands and Waters of the U.S.

A federal Clean Water Act permit issued by the ACOE will be necessary for direct impacts to 1.65 acres of wetlands (0.84 acre of mule fat scrub and 0.81 acre of the southern sycamore riparian woodland) and 1.78 acres of Waters of the U.S. (intermittent streams and manmade stock ponds). As part of the permitting process, there may be required mitigation measures independent of the requirements of CEQA for impacts to wetlands. Only a portion of the mule fat scrub being impacted was delineated as a wetland (0.84 acre), although the total impact to this community is 2.8 acres. Only a portion of the southern sycamore riparian woodland being impacted was delineated as a wetland (0.81 acre), although the total impact to this community is 3.3 acres (0.5 acre on site and 2.8 acres off site). A Streambed Alteration Agreement with the CDFG will also be required for the 7.7 acres of impacts to wetland habitats (southern sycamore riparian woodland, mule fat scrub, and ephemeral pond). A conceptual wetland mitigation plan for these impacts is presented in Appendix D.

Southern Mixed Chaparral

Approximately 1.8 acres (33 percent) of southern mixed chaparral will be directly impacted on site by the Project. These impacts are not significant because of the small amount of impact and the fact that southern mixed chaparral is not a sensitive habitat.

Agriculture, Annual Grassland, and Disturbed

Approximately 4.6 acres (100 percent) of agriculture, 119.2 acres (95 percent) of annual grassland, and 1.1 acres of disturbed land (100 percent) will also be directly impacted on site. An additional 2.4 acres of annual grassland and 2.6 acres of disturbed will be impacted off site. These impacts are not significant because the habitats are not sensitive.

SENSITIVE PLANTS

All or a portion of seven of the eight stands of Catalina mariposa lily, including approximately 314 (72 percent) of the estimated 435 individuals, will be eliminated by the proposed Project. Approximately 121 individuals of the remaining stand will remain in open space. Impacts to this species are not significant due to the species' relatively low level of sensitivity, the relatively small population size on site, and the relatively broad distribution of this species throughout its range.

One of the three stands of intermediate mariposa lily will be eliminated by the proposed Project. Approximately one of the estimated 18 individuals (5 percent) will be directly impacted. Impacts to this species are adverse but not significant due to the small amount of impact and small size of the total site population and, therefore, low regional significance of the on-site population.

SENSITIVE ANIMALS

Riverside Fairy Shrimp

Impacts to all ponds where fairy shrimp were detected are significant because of the limited distribution of the species and because it is federally listed as endangered.

Western Spadefoot

One of the two ponds where larvae were found will be impacted by the Project. The impact to this species is not significant because of the species low level of sensitivity and because the population on site is not of regional significance due to its small size.

Orangethroat Whiptail, Coastal Whiptail, Cactus Wren, and Southern California Rufous-Crowned Sparrow

The orangethroat whiptail and coastal whiptail prefer the open Venturan-Diegan transitional coastal sage scrub and southern mixed chaparral areas of the site. Two orangethroat whiptails and one coastal whiptail were observed, and the two reptiles are expected to occur throughout appropriate Venturan-Diegan transitional coastal sage scrub habitat on site. Approximately 54 acres of combined Venturan-Diegan transitional coastal sage scrub and chaparral will be directly impacted (including off-site impacts), leaving 26.5 acres in open space on site. Ten cactus wrens and 12 southern California rufous-crowned sparrows are distributed throughout the Venturan-Diegan transitional coastal sage scrub on site and just off site. Approximately 50.3 acres of potential nesting and foraging habitat (Venturan-Diegan transitional coastal sage scrub) will be impacted on and off site, including at least portions of areas occupied by all of the sparrows and at least four pairs of cactus wrens. Impacts to these four species combined are significant but mitigable.

Cooper's Hawk and Loggerhead Shrike

No direct impacts to Cooper's hawk nests are anticipated because no nests were observed during the surveys. Impacts to foraging habitat on site (entire site) are adverse but not significant since it is unlikely that any active nests will be disturbed. The loss of foraging habitat could affect, at most, a portion of one territory of one pair of Cooper's hawks, and this impact is not significant.

Loggerhead shrikes were observed on site by PSBS, but it is unknown how many or whether they were breeding on site. Assuming that they still use the site, the Project impacts will still not be significant because of the low sensitivity of this species.

RAPTOR FORAGING HABITAT

Impacts to all habitats on and off site will total 206.2 acres, while off-site impacts will total 7.0 acres. These impacts will generally add to the loss of raptor foraging areas in the region. This impact is significant cumulatively but mitigable.

POTENTIALLY OCCURRING SPECIES

Given the low sensitivity of the potentially occurring species, their distribution throughout other parts of Orange County, and the low amount of anticipated impacts to their respective habitats, any potential impacts to these species are adverse but not significant. We do not recommend focused surveys for mammals or other species.

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This alternative reduces the impacts and maintains the wildlife corridor across the northeastern corner of the site (Figure 3). There would be significant impacts to all of the

sensitive habitats and species as are impacted under the current plan, but the impact would be greatly reduced and much more open space would remain on site.

CLUSTER/REDUCED DEVELOPMENT FOOTPRINT

This alternative maintains the wildlife corridor across the central ridge of the site (Figure 4). There would be significant impacts to all of the sensitive habitats and species as are impacted under the current plan, but the impact would be greatly reduced and much more open space would remain on site.

MITIGATION

This section presents recommendations to mitigate significant impacts based on current practices in the context of this Project, given the on-site opportunities for preservation and revegetation. Replacement ratios for the various impacted communities will also be discussed. Proposed mitigation measures are based on the requirements of CEQA, which requires mitigation to offset biological impacts which are significant, on the County of Orange's Oak Ordinance, NCCP process guidelines, the federal ESA, and state and federal wetland permitting requirements.

The Project impacts most of the site as a result of Project grading, fuel modification zones, and remedial grading requirements. Additionally, significant remedial grading are also required off site. Mitigation replacement ratios have been defined based on the quality of the habitat and the condition of the habitat used for compensation at the time the parcel is proposed for development.

Impacts to Venturan-Diegan transitional coastal sage scrub habitat will require a mitigation ratio of 1.5:1 because although it is ranked as intermediate value habitat (under the NCCP), in its current condition much of the habitat being impacted is fragmented, is at least partially disturbed, and it does not support the coastal California gnatcatcher. All impacts to mule fat scrub (including the wetland portion) will be mitigated at 1:1 because of the poor quality of the existing habitat and because it is surrounded by agriculture and annual grassland habitats. All southern sycamore riparian woodland (even the wetland portion) will be mitigated at a ratio of 3:1 because of its high habitat quality. Coast live oak woodland habitat will be mitigated at a 1:1 replacement ratio. The minimum number of oaks to be planted is derived from guidelines for individual tree replacement based on the Orange County oak ordinance, which considers the diameter and number of oak trees impacted. Ephemeral pond habitat will need to be replaced at a 2:1 ratio because it supports the Riverside fairy shrimp. Table 4 presents a summary of impacts and mitigation.

Table 4

SUMMARY OF ON- AND OFF-SITE IMPACTS
TO VEGETATION COMMUNITIES AND ASSOCIATED MITIGATION

Habitat Type	Impact Acreage	Mitigation Ratio	Mitigation Acreage
Venturan-Diegan transitional coastal sage scrub*	50.3	1.5:1	75.5
Mule fat scrub	3.8	1:1	3.8
Southern sycamore riparian woodland	3.3	3:1	9.9
Coast live oak woodland	14:6	1:1	14.6
Ephemeral pond	0.6	2:1	1.2

*Mitigation for Venturan-Diegan transitional coastal sage scrub will occur on and off site. See Figure 7 for on-site mitigation areas.

Impacts to the southern mixed chaparral, annual grassland, and agricultural habitats on site do not require mitigation.

VENTURAN-DIEGAN TRANSITIONAL COASTAL SAGE SCRUB

Venturan-Diegan transitional coastal sage scrub will be mitigated by on-site preservation, on-site restoration, and by making a contribution to the NCCP. Based on a 1.5:1 mitigation ratio, the 50.3 acres of impacts to Venturan-Diegan transitional coastal sage scrub will require preservation or creation of 75.5 acres of habitat. On-site preservation of Venturan-Diegan transitional coastal sage scrub totals 22.9 acres in open space within the proposed NCCP corridor; an additional 52.6 acres of Venturan-Diegan transitional coastal sage scrub is therefore required for mitigation through preservation, restoration, or NCCP acquisition. Approximately 40.4 acres of remedial grading areas are proposed to be revegetated with Venturan-Diegan transitional coastal sage scrub. The remaining mitigation requirement will be met by revegetating 6.1 acres of disturbed areas within open space on site with Venturan-Diegan transitional coastal sage scrub and making a financial contribution to the Endowment Fund for the NCCP to be used for programs such as the Adaptive Management Program.

The Venturan-Diegan transitional coastal sage scrub revegetation aspect of the upland mitigation plan can be implemented with one of two options. The first option will entail topsoil salvage and possibly seeding (Table 5). The second option will involve simply seeding of the revegetation areas. Option 1 has the potential to develop into habitat more quickly than Option 2, although the cost of Option 1 is higher than Option 2.

Table 5

VENTURAN-DIEGAN TRANSITIONAL COASTAL SAGE SCRUB HYDROSEED SPECIES

Scientific Name	Common Name
Baccharis sarothroides	Broom baccharis
Gnaphalium californicum	California everlasting
Lotus scoparius	Deerweed
Lupinus bicolor	Lupine
Nasella lepida	Foothill needlegrass
Nasella pulchra	Purple needlegrass
Mimulus aurantiacus	Monkeyflower
Artemisia californica	California sagebrush
Encelia californica	California encelia
Eriogonum fasciculatum	California buckwheat
Opuntia littoralis	Prickly-pear
Opuntia prolifera	Cholla
Salvia mellifera	Black sage
Yucca whipplei	Yucca

Maintenance and technical monitoring events should occur annually in July over a five-year period. Maintenance monitoring will include general maintenance, weed control, pest control, pruning (if necessary), and protection of the revegetation area with adequate fencing. Technical monitoring will involve sampling the habitat to monitor its progress in meeting the success criteria for the revegetation. The primary goal of the monitoring program is to provide quality assurance to oversee the maintenance of the newly created habitat.

Overall supervision of the installation and maintenance contractors and monitoring in the mitigation area will be the responsibility of the restoration specialist or a biologist familiar with native habitat restoration. The restoration specialist will educate all contractors with regard to mitigation goals and requirements.

The Project proponent will be responsible for financing the installation and monitoring of the mitigation sites. In order to ensure the success of mitigation, the Project proponent should enter into a five year secured agreement with the County of Orange to cover the Projected cost to install, monitor, and report on the mitigation Project. This agreement will be in the form of a 100 percent bond.

CONSISTENCY WITH THE 4(d) RULE

Recently, a special rule under Section 4(d) of the federal ESA was finalized which authorizes incidental take of the coastal California gnatcatcher in conjunction with an approved plan under the NCCP. This program was initiated under the NCCP Act of 1991 in an attempt to develop regional open space planning efforts designed to protect native plants and animals and their habitats in regional preserve systems. Since the Final NCCP Plan has not been completed, NCCP planning is currently based on an Interim Plan. The Interim Plan differs from the Final Plan in that the reserve system outlined in the Interim Plan is conceptual. The Final Plan will describe and implement a detailed reserve system that will incorporate results of site-specific open space planning.

An interim habitat loss permit must be approved prior to Project-related loss of coastal sage scrub. To approve an interim habitat loss application, the local agency must make findings based on the information obtained pursuant to Section 4.1.2 of the November 1993 NCCP Process Guidelines. The following paragraphs describe the findings that have been made for Saddleback Meadows.

(1) The proposed habitat loss is consistent with the interim loss criteria in the conservation guidelines and with any subregional process if established by the subregion.

(a) The habitat loss does not cumulatively exceed the 5 percent guideline.

The NCCP Conservation Guidelines have indicated that a 5 percent loss of coastal sage scrub habitat is acceptable within any individual subregion during the preparation of a subregional NCCP or its equivalent. The habitat loss does not cumulatively exceed the 5 percent guideline. The loss of a maximum of approximately 50.3 acres of Venturan-Diegan transitional coastal sage scrub (including 6.1 acres off site) combined with the current losses of coastal sage scrub within the Southern Subregion, will not exceed 5 percent of the existing coastal sage scrub habitat (Table 6).

Table 6

CURRENT LOSSES OF COASTAL SAGE SCRUB
IN ORANGE COUNTY SOUTHERN SUBREGION

Initial 5% Allowable Habitat Loss in Southern Subregion	1,315.75 out of 26,315 total acres
Cumulative Loss to Date	223.27 acres
Remaining Loss Allowed	1,092.48 acres
Remaining Loss After Proposed Project	1,042.18 acres

(b) The habitat loss will not preclude connectivity between areas of high habitat values.

The three-part corridor described in detail earlier is expected to facilitate all wildlife movement in the site vicinity, ultimately enhancing gene pool protection for a high diversity of species within the NCCP preserve system. The primary NCCP target species, the gnatcatcher, will benefit most by preservation and enhancement of the

Southern Corridor through the existing nursery. This is a more direct connection in this area that has existing or restorable Venturan-Diegan transitional coastal sage scrub.

(c) The habitat loss will not preclude or prevent the preparation of the subregional NCCP.

According to the NCCP Evaluation Logic Flow Chart, the Venturan-Diegan transitional coastal sage scrub on the Project site has intermediate value for long-term conservation because although it is not the most dense coastal sage scrub in the region, it is located next to a higher value district (O'Neill Regional Park and Whiting Ranch Regional Park). Saddleback Meadows does not currently support the coastal California gnatcatcher, and Project impacts will not preclude future planning options in the site vicinity where populations of the gnatcatcher are known to occur.

(d) The habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with Section 4.3.

The NCCP Process Guidelines identify several options for mitigating impacts to coastal sage scrub. These options include acquisition of habitat, dedication of land, management agreements, restoration, etc. The dedication and long-term preservation of 22.9 acres of habitat on Saddleback Meadows, revegetation of 46.5 acres of Venturan-Diegan transitional coastal sage scrub on site, and contribution to the Orange County NCCP are consistent with the NCCP Process Guidelines.

(2) The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild.

The loss of Venturan-Diegan transitional coastal sage scrub habitat will not appreciably reduce the likelihood of the survival and recovery of listed species in the

wild because the proposed habitat loss has been mitigated and minimized, and site development will not preclude connectivity between areas of high quality habitat.

(3) The habitat loss is incidental to otherwise lawful activities.

The proposed loss of approximately 50.3 acres of Venturan-Diegan transitional coastal sage scrub (including 6.1 acres off site) will only occur with approval of the necessary development permits.

COAST LIVE OAK WOODLAND

Coast live oak mitigation can be achieved by off-site mitigation or by making a financial contribution to the Endowment Fund for the NCCP to be used for programs such as the Adaptive Management Program.

MULE FAT SCRUB AND SOUTHERN SYCAMORE RIPARIAN WOODLAND

Impacts to mule fat scrub (3.8 acres including the 0.84 acre wetland portion) will need to be mitigated by off-site restoration of 3.8 acres of habitat (1:1 mitigation ratio) (0.84 acre of this will need to be created as wetland). Impacts to southern sycamore riparian woodland (3.3 acres including the 0.81-acre wetland portion) will need to be mitigated by restoration of 9.9 acre (3:1 mitigation ratio). Some of the restoration may be possible within Aliso Creek near the area being impacted, depending on the topography and development after remedial grading. Restoration would involve a combination of planting and seeding of riparian plant species. The remaining mitigation obligation may be met by restoring habitat off site at a 1:1 ratio or possibly by a contribution to the Orange County NCCP.

Impacts to federal jurisdictional wetlands and Waters of the U.S. require a Section 404 permit with the ACOE and a Section 1600 Streambed Alteration Agreement with the CDFG. Applications for these permits have been filed.

RIVERSIDE FAIRY SHRIMP

Because there are no suitable on-site mitigation areas for creating ephemeral pond habitat, the impact to Riverside fairy shrimp will have to be mitigated off site. This would be done by the purchase of Riverside fairy shrimp habitat off site. The exact amount required for mitigation would be determined during consultation with the resource agencies.

ADDITIONAL SENSITIVE SPECIES

No sensitive plant mitigation is required by the Project; however see additional mitigation recommendations below.

Impacts to the orangethroat whiptail, coastal whiptail, southern California rufous-crowned sparrow, and cactus wren are mitigable in the context of Venturan-Diegan transitional coastal sage scrub mitigation. Sufficient habitat will remain on site, when combined with areas to be revegetated, to support these species after Project development.

CORRIDOR ISSUES

The Central Corridor is not being implemented according to the current plan. This is considered a significant unmitigated impact.

ADDITIONAL MITIGATION RECOMMENDATIONS

The following recommendations are proposed to minimize some of the proposed impacts, although some of the impacts will not be mitigated under the current plan.

- Where possible, bulbs of individual Catalina mariposa lily and intermediate mariposa lily that are to be impacted should be removed and transplanted to a suitable habitat with similar soil, slope exposure, etc.

- A barrier adjacent to preserved areas is recommended.

- Lighting within development Projects adjacent to conserved habitat should be selectively placed, shielded, and directed away from that habitat. In addition, lighting from homes abutting conserved habitat should be screened with vegetation, and large spotlight-type lighting that may affect conserved habitat should be prohibited. These lighting restrictions should be incorporated into the Project's CC&Rs.

- Fuel modification zones should contain as many native plant species as possible, and fuel modification zones should blend into each other, with the innermost zone being the most 'landscaped' and the outermost being the most natural.

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Mitigation to below a level of significance for all habitats impacted would be possible by restoration and preservation in open space on site under this alternative. Maintenance of a 200-foot wide wildlife corridor would occur within the northeast corner of the site.

CLUSTER/REDUCED DEVELOPMENT FOOTPRINT

As with the previous alternative, mitigation to below a level of significance for all habitats impacted would be possible by restoration and preservation on site under this alternative. Maintenance of a 200-foot wide wildlife corridor would occur within the central portion of the site.

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APPENDIX A

PLANT SPECIES LIST FOR SADDLEBACK MEADOWS

(* Non-native species)
(† Sensitive species)

SCIENTIFIC NAME**	COMMON NAME
Achnatherum coronatum	needle grass
Adenostoma fasciculatum	chamise
Agave spp.	agave
Amaranthus albus	tumbleweed
Ambrosia acanthicarpa	annual bur-sage
Ambrosia psilostachya	western ragweed
*Anagallis arvensis**	scarlet pimpernel
Anthemis cotula	may weed
Artemisia californica	California sagebrush
Artemisia douglasiana	mugwort
*Arundo donax**	giant reed
*Atriplex semibaccata**	Australian saltbush
*Avena barbata.**	slender wild oat
Baccharis pilularis	coyote brush
Baccharis salicifolia	mule fat
Brickellia californica	brickelbush
*Bromus diandrus**	ripgut grass
*Bromus hordeaceus**	soft chess
Bromus madritensis ssp *rubens**	foxtail chess
Castilleja affinis	indian paintbrush
Calochortus catalinae†	Catalina mariposa lily
Calochortus weedii var. *intermedius*†	intermediate mariposa lily
Ceanothus crassifolius	hoaryleaf ceanothus
*Centaurea melitensis**	tocalote
*Chenopodium murale**	nettle-leaved goosefoot
*Cirsium vulgare**	bull thistle
*Conyza bonariensis**	conyza
*Conyza canadensis**	horseweed
Cordylanthus rigidus	bird's-beak
Cucurbita foetidissima	calabazilla
Cuscuta californica	dodder
*Cynara cardunculus**	cardoon
Datura wrightii	jimson weed
Distichlis spicata	salt grass
Dudleya pulverulenta	chalk live-forever

APPENDIX A (cont.)

PLANT SPECIES LIST FOR SADDLEBACK MEADOWS

(* Non-native species)
(† Sensitive species)

SCIENTIFIC NAME**	COMMON NAME
Eleocharis montevidensis	slender creeping spike-rush
Encelia californica	common encelia
Eremocarpus setigerus	dove weed
Eriastrum sapphirinum	blue wool-stem
Eriogonum elongatum	long-stemmed eriogonum
Eriogonum fasciculatum	California buckwheat
Eriophyllum confertiflorum var. *confertiflorum*	golden yarrow
*Erodium brachycarpum**	short-beaked filaree
*Erodium cicutarium**	red-stem filaree
*Erodium moschatum**	green-stem filaree
*Eucalyptus caldocalyx**	blue gum
Eucalyptus spp.*	eucalyptus
*Foeniculum vulgare**	fennel
Galium angustifolium	narrow-leaved bedstraw
*Galium aparine**	goosegrass
Galium nuttallii	bedstraw
Grindelia camporum	gum plant
Hazardia squarrosa ssp. *grindelioides*	hazzardia
Hemizonia fasciculata	fascicled tarplant
Heteromoles arbutifolia	toyon
Heterotheca grandiflora	telegraph weed
Hordeum murinum ssp. *leporinum**	barley
*Hypochaeris glabra**	smooth cat's-ear
Isocoma menziesii var. vernoniodes	coastal isocoma
Juglans californica	California black walnut
Keckiella cordifolia	heart-leaved penstemon
*Lactuca serriola**	prickly lettuce
Lemna minor	duckweed
Lessingia filaginifolia var. *filaginifolia*	sand-aster
Leymus condensatus	giant rye-grass
*Lolium perenne**	perennial ryegrass
Lonicera subspicata	honeysuckle
Lotus purshianus	Spanish clover
Lotus scoparius	deerweed
Lupinus succulentus	arroyo lupine
Malosma laurina	laurel sumac
*Marrubium vulgare**	horehound

APPENDIX A (cont.)

PLANT SPECIES LIST FOR SADDLEBACK MEADOWS

(* Non-native species)
(† Sensitive species)

SCIENTIFIC NAME**	COMMON NAME
*Medicago polymorpha**	bur-clover
*Melilotus alba**	white sweet clover
Mimulus aurantiacus	yellow bush monkey-flower
Nasella lepida	foothill needlegrass
Nasella pulchra	purple needlegrass
*Nicotiana glauca**	tree tobacco
Olea europea	European olive
Opuntia littoralis	coastal prickly pear
Opuntia spp.	cholla
*Piptatherum miliaceum**	smilo grass
Platanus racemosa	western sycamore
Poa annua	annual bluegrass
Quercus agrifolia	coast live oak
*Raphanus sativus**	radish
Rhamnus ilicifolia	holly-leaved redberry
Rhamnus tomentella	hoary redberry
Rhus integrifolia	lemonadeberry
*Ricinus communis**	castor bean
*Robinia psuedoacacia**	black locust
*Rumex crispus**	curly dock
Salix gooddingii	black willow
*Salsola tragus**	tumbleweed
Salvia apiana	white sage
Salvia columbariae	chia
Salvia mellifera	black sage
Sambucus mexicana	blue elderberry
*Schinus molle**	Peruvian pepper-tree
Schismus barbatus	Mediterranean schismus
*Silene gallica**	windmill pink
*Silybum marianum**	milk thistle
Solidago californica	California goldenrod
Stachys ajugoides var. *rigida*	hedge nettle
Symphoricarpos mollis	creeping snowberry
Tamarix sp.*	tamarisk
Toxicodendron diversilobum	western poison oak
Trifolium sp.	clover
Typha domingensis.	southern cattail

APPENDIX A (cont.)

PLANT SPECIES LIST FOR SADDLEBACK MEADOWS
(* Non-native species)
(† Sensitive species)

SCIENTIFIC NAME**	COMMON NAME
Verbena lasiostachys var. *lasiostachys*	verbena
*Vulpia myuros**	fescue
Yucca whipplei	our Lord's candle

**Nomenclature from Hickman, Ed. (1993) and Skinner and Pavlik (1994).

APPENDIX B

ANIMAL SPECIES* OBSERVED ON SADDLEBACK MEADOWS
(† Sensitive species)

Scientific Name	Common Name
Invertebrates	
Streptocephalus woottoni†	Riverside fairy shrimp
Reptiles	
Sceloporus occidentalis	Western fence lizard
Uta stansburiana	Side-blotched lizard
Cnemidophorus tigris multiscutatus†	Coastal whiptail
Cnemidophrous hyperythrus beldingi†	Orangethroat whiptail
Birds	
Cathartes aura	Turkey vulture
Accipter cooperii†	Cooper's hawk
Buteo jamaicensis	Red-tailed hawk
Falco sparverius	American kestrel
Callipepla californica	California quail
Zenaida macroura	Mourning dove
Geococcyx californianus	Greater roadrunner
Tyto alba	Barn owl
Archilochus alexandri	Black-chinned hummingbird
Calypte anna	Anna's hummingbird
Calypte costae	Costa's hummingbird
Selasphorus rufus	Rufous hummingbird
Picoides nuttallii	Nuttal's woodpecker
Colaptes auratus	Northern flicker
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Contupus sordidulus	Western wood peewee
Hirundo pyrrhonota	Cliff swallow
Stelgidopteryx serripennis	Northern rough-winged swallow
Aphelocoma coerulescens	Scrub jay
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Thryomanes bewickii	Bewick's wren
Campylorhynchus brunneicapillus†	Cactus wren
Chamaea fasciata	Wrentit
Mimus polyglottos	Northern mockingbird
Toxostoma redivivum	California thrasher
Anthus rubescens	American pipit
Lanius ludovicianus†	Loggerhead shrike
Phainopepla nitens	Phainopepla
Vireo huttoni	Hutton's vireo
Vermivora celata	Orange-crowned warbler
Dendroica coronata	Yellow-rumped warbler
Geothlypis trichas	Common yellowthroat
Pheucticus melanocephalus	Black-headed grosbeak
Guiraca caerulea	Blue grosbeak

APPENDIX B

ANIMAL SPECIES* OBSERVED ON SADDLEBACK MEADOWS (CONT)
(† Sensitive species)

Scientific Name	Common Name
Passerina amoena	Lazuli bunting
Pipilo crissalis	California towhee
Pipilo erythrophthalmus	Rufous-sided towhee
Aimophila ruficeps canescens†	Southern California rufous-crowned sparrow
Melospiza melodia	Song sparrow
Chondestes grammicus	Lark sparrow
Zonotrichia leucophrys	White-crowned sparrow
Junco hyemalis	Dark-eyed junco
Sturnella neglecta	Western meadowlark
Icterus cucullatus	Hooded oriole
Icterus galbula	Northern oriole
Carpodacus mexicanus	House finch
Carduelis tristis	American goldfinch
Carduelis psaltria	Lesser goldfinch
Mammals	
Sylvilagus audubonii	Desert cottontail
Spermophilus beecheyi	California ground squirrel
Thomomys bottae	Botta's pocket gopher
Neotoma sp.	Woodrat
Canis latrans	Coyote
Urocyon cinereoargenteus	Gray fox
Lynx rufus	Bobcat
Odocoileus hemionus	Mule deer

* Nomenclature from Jones et al. (1992), Collins (1990), and American Ornithologist's Union (1983)

APPENDIX C

SENSITIVITY CODES

FEDERAL SPECIES DESIGNATIONS

Category

FE	Federal endangered species
FT	Federal threatened species
PE	Species already proposed to be listed as endangered.
PT	Species already proposed to be listed as threatened.
C1	Enough data on file to support federal listing
RS	Regionally sensitive

Plants only

RS	Regionally sensitive

Previously considered for listing, but no longer under consideration because (Skinner & Pavlik 1994).

Ca	Extinct.
Cb	Taxonomically invalid.
Cc	Too widespread and/or not threatened

STATE SPECIES DESIGNATIONS

SE	State listed as endangered (listed as "CE" in Skinner & Pavlik 1994).
ST	State listed as threatened (listed as "CT" in Skinner & Pavlik 1994)
SCE	State candidate for listing as endangered (listed as "CC" in Skinner & Pavlik 1994).
SCT	State candidate for listing as threatened (listed as "CC" in Skinner & Pavlik 1994).
CSC	CDFG "species of special concern."

Plants only

CR	State-listed, rare.
CEQA	CEQA consideration mandatory.
CEQA?	CEQA consideration recommended.

CALIFORNIA NATIVE PLANT SOCIETY DESIGNATIONS (Skinner & Pavlik 1994)

The CNPS List

List 1	Plants of highest priority.
List 1A	Plants presumed extinct in California.
List 1B	Plants rare, threatened or endangered in California and elsewhere.
List 2	Plants rare, threatened or endangered in California, but common elsewhere
List 3	Plants about which we need more information.
List 4	Plants of limited distribution (A watch list)

The R-E-D Code

R (Rarity)	1	Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.
	2	Occurrence confined to several populations or to one extended population.
	3	Occurrence limited to one or a few highly restricted populations, or present in such numbers that it is seldom reported.
E (Endangerment)	1	Not endangered.
	2	Endangered in a portion of its range.
	3	Endangered throughout its range.
D (Distribution)	1	More or less widespread outside California.
	2	Rare outside California.
	3	Endemic to California.

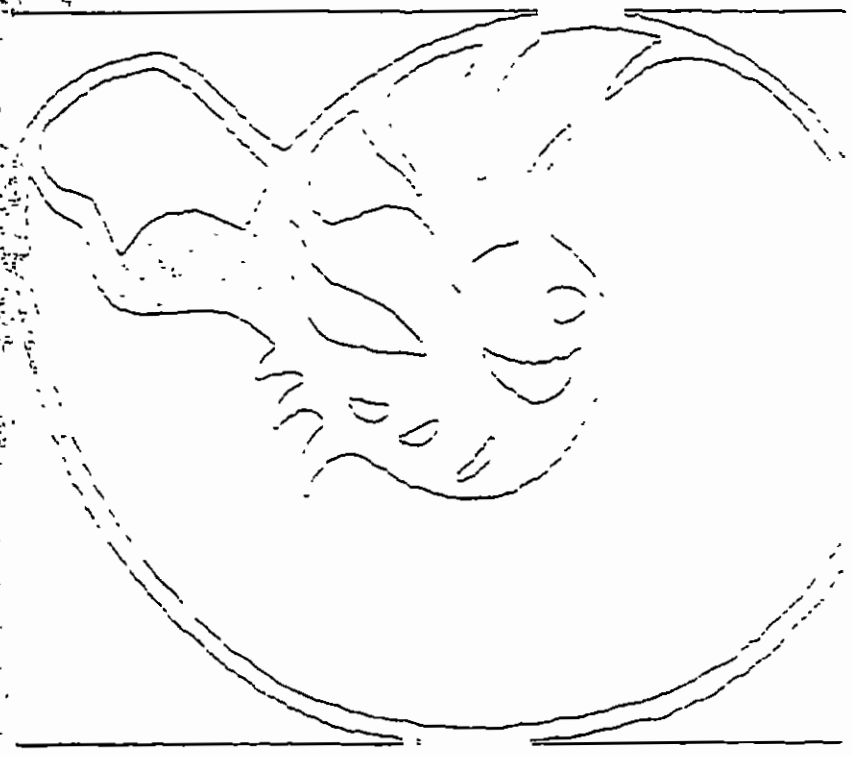
APPENDIX D

CONCEPTUAL WETLAND MITIGATION PLAN

APPENDIX E

CONCEPTUAL UPLAND MITIGATION PLAN

APPENDIX I
CULTURAL RESOURCES ASSESSMENT



RMW

AUTHOR: Patrick O Maxon

PRINCIPAL INVESTIGATOR: Ronald M Bissell

DATE: March 1997

TITLE: Summary of Cultural Resources Investigation and Recommendations for Further Work Within the Saddleback Meadows Planned Development, Orange County, California

SUBMITTED BY:
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CONTRACT NUMBER: RMW Project Number 97-1006

ACREAGE: 229.2 acres

MAP: USGS Santiago Peak, California 7.5 Minute Quadrangle, 1954, Photorevised 1973

KEYWORDS: Orange County, Saddleback Meadows, Township 6S, Range 7W; San Bernardino Base and Meridian; CA-ORA-710, -711, -712, -713, -714, -715, -716, -1255, -1256, -1257, -1437 & -1435H

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MANAGEMENT SUMMARY/ABSTRACT

Purpose and Scope: The Presidio Group has produced revised plans to develop Saddleback Meadows in the County of Orange for the purpose of constructing a residential community. The 229.2 acre site will see the construction of 705 manufactured, single-family residential units. EIR 566 will be prepared for the project.

This report has been undertaken for the purpose of inclusion into EIR 566, required for the current project. The report describes all past cultural resource investigation on the Saddleback Meadows property It further recommends and describes the additional work to be accomplished before implementation of the above mentioned project can occur.

Dates of Investigation: This report was produced between 12 February and 14 March 1997.

Evaluation: Only CA-ORA-710 and CA-ORA-711 have been determined to be important according to Appendix K of the California Environmental Quality Act (Governor's Office of Planning and Research 1995) and significant as defined by the *National Historic Preservation Act* (see below) Although they lie in proposed open space, remedial grading will destroy them and thus data recovery excavation is required The importance/significance of CA-ORA-713, -715, -1437 and -1435H has yet to be established and further work at these sites is necessary.

Undertaking Effects: The revised plans for construction of 705 manufactured, single-family residential units will require extensive grading in preparation for construction. As a result, every cultural resource previously identified on the property will be destroyed. The impacts to some of the sites must therefore be mitigated prior to development.

Recommendations: CA-ORA-710 and CA-ORA-711 have been determined to be important according to CEQA and significant as defined by the *National Historic Preservation Act* (see below). Although they lie in open space, remedial grading of the proposed open space will destroy the sites. Data recovery excavation of at least 30 one by one meter units at each site must be accomplished. CA-ORA-1437 is the site newly discovered during the previous project (Maxon 1995), no work has been accomplished at the site beyond mapping and recording A surface examination and surface collection and a test excavation consisting of approximately ten, one by one meter units must be accomplished at the site. Additional work may become necessary after evaluation CA- ORA-1435H has not yet been evaluated. Initial work will entail archival

research and a review of historic aerial photographs. A surface examination and collection and a test excavation consisting of a sufficient number of backhoe trenches (approximately 10-20) must be accomplished on the site Additional investigation may then become necessary after evaluation. All above mentioned investigations must be accomplished prior to the commencement of clearing/grading operations.

No determination of importance/significance has been made for CA-ORA-713 and CA-ORA-715 It is recommended that these sites undergo controlled destruction with the aid of a small, paddlewheel scraper. If artifact clusters are discovered, additional excavation may be necessary. This work can be accomplished after grading is underway

All other archaeological sites on the property have been deemed not important/significant and no further work, beyond monitoring of grading is necessary.

Disposition of Data: The material collected during the previous project (Maxon 1995) is being temporarily curated at RMW Paleo Associates, address on title page. The collection will be transferred to a permanent curation facility, specified by the permitting agency and the owners, as soon as possible All field notes, excavation forms and laboratory documents are on file at RMW Paleo Associates.

UNDERTAKING INFORMATION/INTRODUCTION

The Presidio Group has produced revised plans to develop Saddleback Meadows in the County of Orange for the purpose of constructing a residential community.

In August 1978, the Orange County Board of Supervisors adopted the "Saddleback Meadows Mobile Home Subdivision" and certified Environmental Impact Report (EIR) 059. This authorized the development of a mobile home park of 617 dwelling units The plan was never put into effect. In July 1996, The Presidio Group submitted a revised 318 unit Site Development Plan to the County of Orange and circulated EIR 561 In October 1996 the Board of Supervisors denied the 318 unit site development plan and did not certify EIR 561 Currently, The Presidio Group is again planning to revert to the August 1978 plans that have previously been approved and to develop the site for the construction of 705 manufactured, single-family residential units on the 229.2 acre site (see Figure 1 below). EIR 566 will be prepared for this project (Environmental Management Agency 1996 5-7).

A summary of this report will be included in EIR 566, required for the current project. The report describes all past cultural resource investigations on the Saddleback Meadows property. It further recommends and describes the additional work to be accomplished before implementation of the above mentioned project can occur and that which can be accomplished after grading is underway.

The Saddleback Meadows project requires a Section 404 permit Under Section 404, impacts to cultural resources fall under the review of the U S Army Corps of Engineers and must be mitigated to be in compliance with Section 106 of the *National Historic Preservation Act* (NHPA). The NHPA authorizes the maintenance of a *National Register of Historic Places* (NRHP) which facilitates the preservation of properties that meet certain criteria delineated by Section 106 of the NHPA (The Advisory Council on Historic Preservation and the GSA Interagency Training Center 1994:II-26). Those criteria are.

> The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and

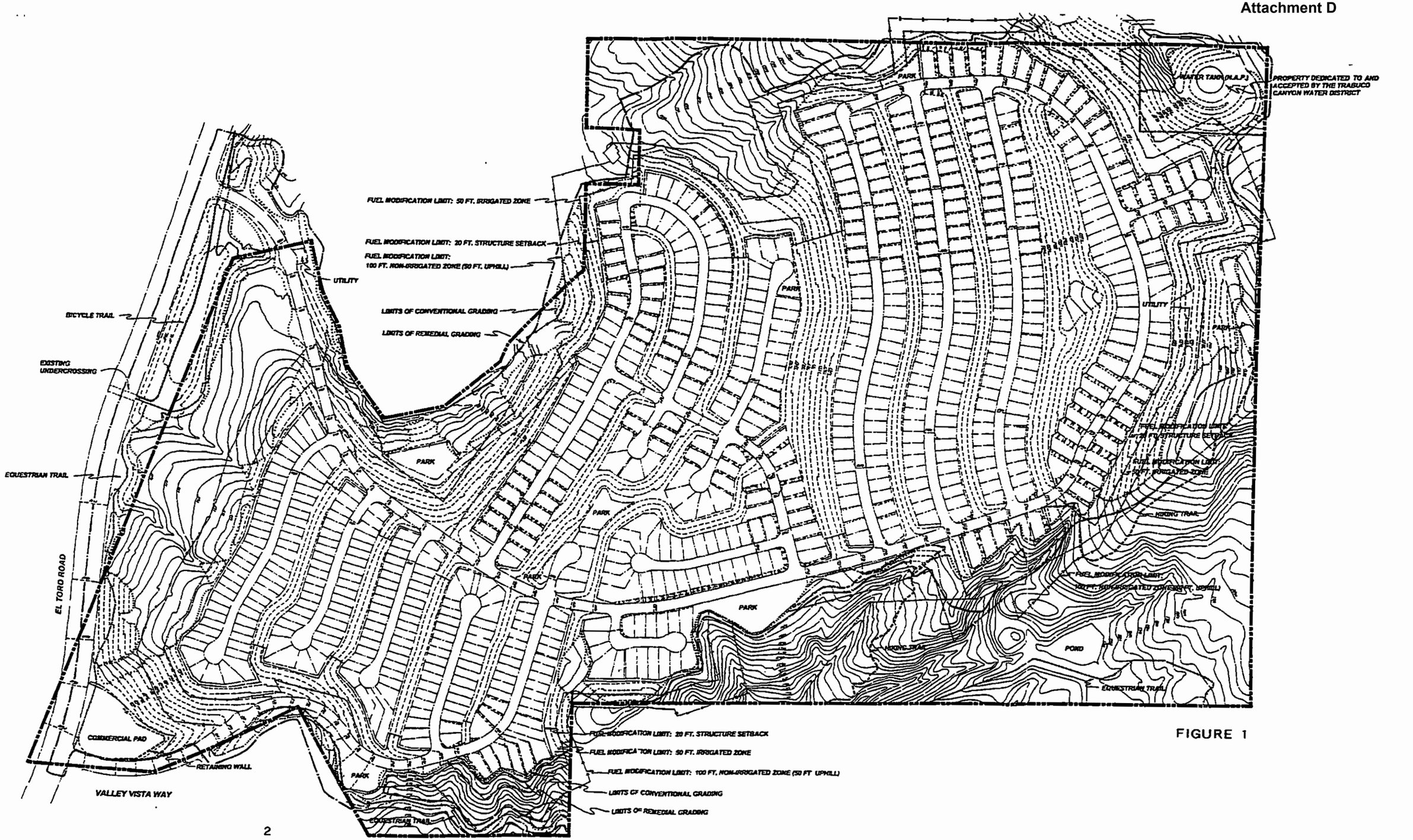


FIGURE 1

2

SADDLEBACK MEADOWS

CALIFORNIA QUARTET, LTD.

705 LOTS

FINAL TRACT MAP 10692

FEBRUARY 3, 1997

(a) that are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) that are associated with the lives of persons significant in our past, or

(c) that embody the distinctive characteristics of a type, period or method of construction...; or

(d) that have yielded, or may be likely to yield, information important in prehistory or history

Because the project must be in compliance with Section 106 guidelines, the present study automatically also falls under the provisions of the California Environmental Quality Act (CEQA) as well Appendix K of CEQA requires that if development is unavoidable, significant impacts to important (CEQA definition) archaeological sites must be reduced to a level of insignificance, through avoidance, preservation or excavation According to Appendix K, Section III of CEQA, "...an important archaeological resource" is one which.

A Is associated with an event or person of

1. Recognized significance in California or American history, or
2. Recognized scientific importance in prehistory

B. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;

C Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind,

D. Is at least 100 years old and possesses substantial stratigraphic integrity; or

E Involves important research questions that historical research has shown can be answered only with archaeological methods

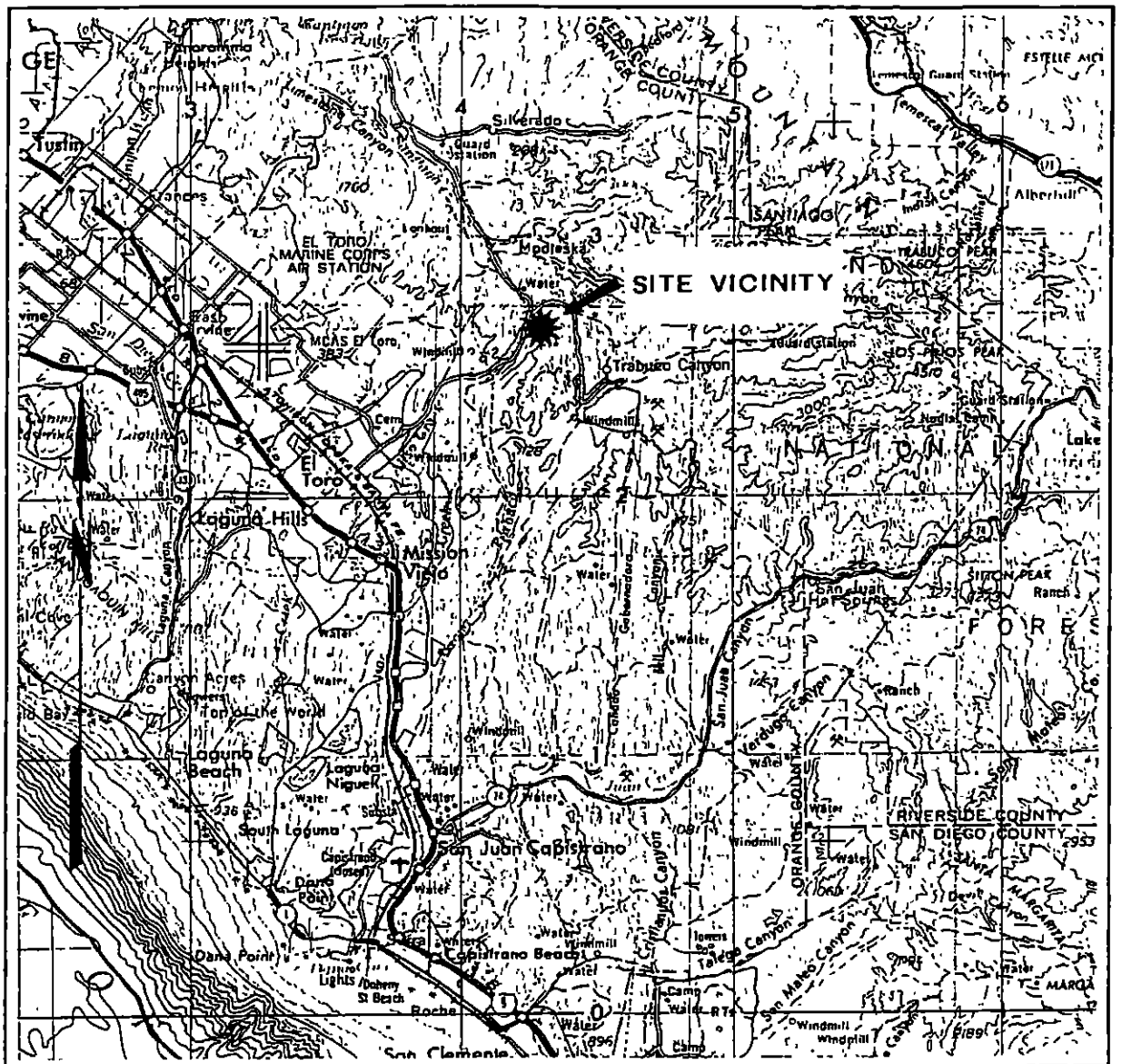
Recently (September 1992) the *California Register of Historical Resources* (California Register) was created. Its purpose is to identify the state's historical resources and to indicate which properties are to be protected (Office of Historic Preservation 1995:1). The criteria for listing resources on the California Register were expressly developed to be in accordance with previously established criteria developed for listing on the *National Register of Historic Places* (NRHP). A property must be significant at the local, state or national level under the same (with minor variations) criteria as those for the NRHP (Office of Historic Preservation 1995.3) Those criteria are listed on pages one and two of this report

Dillon (1989) has recommended that if subsurface deposits are discovered on any of the present sites, a formal salvage operation must be designed to mitigate any adverse impacts. The project described in this report accomplishes Dillon's recommendations.

The revised plans for construction of 705 manufactured, single family residential units will require extensive grading in preparation of construction For this reason, every cultural resource previously identified on the property will be destroyed and impacts must therefore be mitigated prior to development The schedule for completion of the project is unknown.

Figure 2 is a portion of the USGS quadrangle map, Santa Ana, California, depicting the general location of the project area. Figure 3 is a portion of the USGS quadrangle map Santiago Peak, California, depicting the specific location of the project area.

Ron Bissell served as Principal Investigator for the previous project (Maxon 1995), and will continue in that capacity for any further archaeological investigation Patrick Maxon, the author of this report, served as Field Director for the previous project and will also continue in that capacity.



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RMW
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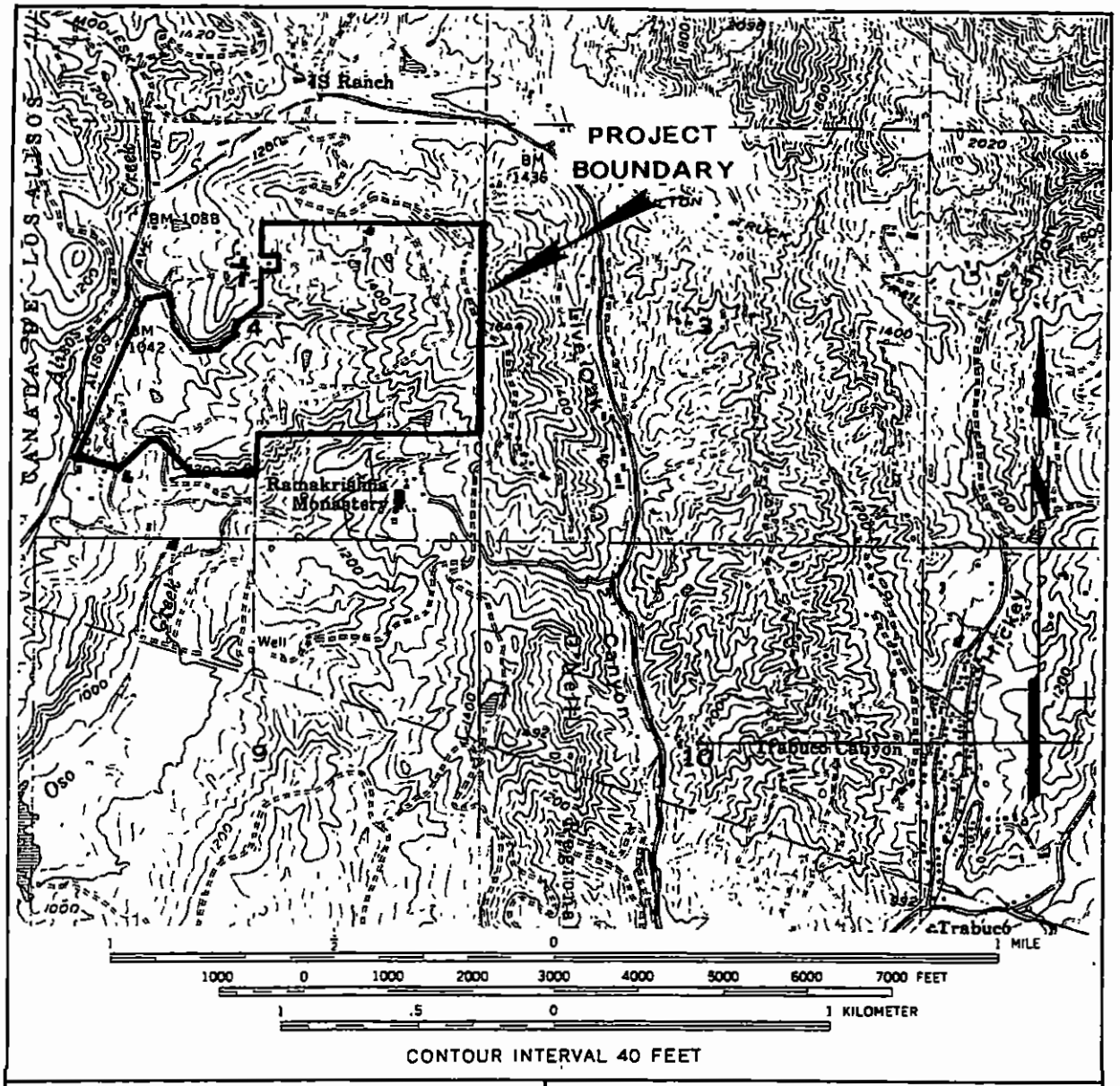
Figure 2: PROJECT VICINITY MAP

Portion of USGS 1 by 2 Degree, Santa Ana, California, 1959, Revised, 1979

Scale = 1.250,000



Paleontology Archaeology History 23392 Madero, Suite L Mission Viejo, CA 92691 (714) 770-8042 FAX (714) 458-9058 RMW Paleo Associates	Figure 3· PROJECT AREA MAP Portion of USGS 7.5 Minute, Santiago Peak, California, Quadrangle, 1954, Photorevised, 1982 Area shown lies in Township 6S, Range 7W Scale = 1.24,000

SETTING

Natural: The Saddleback Meadows project area lies in the foothills of the Santa Ana Mountains of Orange County, California. Aliso Creek flows southward along its western margin. The property is in Section 4 of Township 6 South, Range 7 West and can be reached via El Toro Road running adjacent to the property, parallel to and west of Aliso Creek. Santiago Peak, the highest in the county, is approximately three kilometers northwest of the property.

The project area consists of narrow, rugged ridges and rounded knolltops separated by steep sided and narrow canyons. A central east/west canyon drains into Aliso Creek. Elevations range from approximately 1,040 feet where the main drainage empties into Aliso Creek to approximately 1,640 feet along portions of the ridges in the north-western portion of the property.

Geologic formations exposed in the Saddleback Meadows study area are the Sespe Formation, the undifferentiated Sespe and Vaqueros Formations, and the Topanga Formation (Raschke 1995) The oldest unit is the late Eocene to early Miocene Sespe Formation and is restricted to the northeastern corner of the property. Overlying and interbedded with the Sespe Formation is the early Miocene age undifferentiated Sespe-Vaqueros Formation This unit underlies all except the northeast corner of the Saddleback Meadows property where there appears to be a small exposure of the middle Miocene age (15 million years ago) Topanga Formation. Within the study area there are numerous occurrences of vertebrate fossils in boulders that have apparently eroded from the subsurface. These include a variety of large and small fragments of marine mammal bones (Raschke 1995). It is not known if these outcrops were utilized, to any extent, by prehistoric populations

The climate of the Saddleback Meadows vicinity can be described as mild, uniform and semi arid. Temperatures rarely exceed 33 degrees Celsius or drop below five degrees Celsius. Rainfall occurs primarily between November and April and averages between 25 and 40 centimeters per year. The current climatic conditions did not prevail during the entire span of time that man has been present in the area. Heusser (1978) suggests that pine forests may have occupied the coastal regions from roughly 10,000 to 6,000 B C E. (Before Common Era) The climate then became warmer and drier, resulting in replacement of the pine forests by oak

woodland and grassland communities. Coastal sage scrub and chaparral communities became pronounced during the few centuries preceding the Common Era (C.E).

A majority of the property has in recent times been used as a cattle ranch and is therefore now covered predominantly by grasslands including introduced grasses, wild mustard and thistle. The slopes and ridges support remnants of the coastal sage scrub community composed of sage, buckwheat, chamise, sumac, prickly pear cactus and other low growing, woody plants A riparian community exists along the Aliso Creek drainage supporting rushes, tules and willows. Mature oaks and sycamores are found in the valleys, drainages and on some of the ridges and knolltops. Hausauer Ranch, along the main drainage emptying into Aliso Creek, is surrounded by introduced eucalyptus trees as well as a large olive grove containing nearly 100 trees.

Several of the ecological communities existing in southern California were readily accessible by the local prehistoric inhabitants of the Saddleback Meadows area, while others were reached only with some difficulty. The following discussion of the plant communities available to the local prehistoric inhabitants is based on Drover and Koerper (1983)

Saltwater Estuary Community and Bay: The estuary and bay communities provided shellfish for the prehistoric peoples. Waterfowl would also have been available, but few plants from the communities were known to have been utilized.

Access to the estuary and bay community was relatively easy for persons utilizing the current study area. Coastal regions were probably used during the winter months as part of the annual round and direct exploitation by people residing near the current study area could have been accomplished in a day's journey down the Aliso Creek drainage some 20 kilometers to the coast.

Beach and Coastal Strand Community This community, including the beach and intertidal areas, provided a large variety of shellfish and areas for line fishing Naturally occurring asphaltum occasionally washed ashore and was collected for use as an adhesive. Seaweed may have also been collected and used as food.

Access to the beach and coastal strand community was also feasible considering the nearness of Saddleback Meadows to the ocean.

Marine Community: A wide variety of sea mammals, fish and crustaceans were available in the marine community, but data regarding local prehistoric exploitation of this community is very scant. It is known that the Chumash, who lived farther up the California coast, made extensive use of marine community resources during the latter part of archaeological time Such exploitation in the local area is not well documented Perhaps this is a reflection of lack of data, rather than an indication that the marine community was not exploited in this area Access to the marine community required some sophisticated technology in the form of watercraft, such as canoes or rafts, as well as fishing and hunting equipment It is unknown if the inhabitants of the Saddleback Meadows area exploited this resource.

Riparian Woodland Community: This community exists along streams and around seeps and springs. Oaks, alders, willows, sycamores and cottonwoods are common trees associated with this community. A large variety of herbs, grasses, cattails and berries grow in the riparian woodland community. Animals and birds attracted by the water and the food resources offered by the vegetation provided ample sustenance for prehistoric and historic peoples The riparian woodland offers a great variety of easily exploited resources.

The riparian woodland community was found along the local streams and existed throughout the current study area.

Freshwater Marsh Community: The major freshwater marshes near the study area would have been located within the Aliso Creek and Oso Creek flood plain Freshwater marshes resemble the riparian community in terms of the plants and animals they host, but may be surrounded by a greater extent of forest growth. Migratory fowl are attracted to freshwater marshes and would have been an abundant resource during particular seasons of the year

Access to the freshwater marshes would have been quite easy because they likely existed at various times along Aliso Creek.

Grassland Herbland Community: Located in the lower Aliso Creek valley, around some freshwater marshes and below the steeper foothills of Saddleback Meadows, the grassland herbland community contained a variety of resources Seeds of many annual grasses would have been the primary resource of interest to the prehistoric peoples, but blossoms, greens, fruits, bulbs, the fleshy parts of prickly pear and occasional walnuts were also available, primarily during

the spring. Animals including deer, rabbits, other rodents and quail are associated with this plant community.

Again, access to the grassland herbland community would have required only a short, relatively level walk from the study area.

Oak Woodland: The oak woodland occurs in sheltered valleys where the soil is deep. Oak trees can grow to as much as 20 meters in height in such conditions, and are surrounded by grasses and herbs. Acorns were a primary food resource for the native inhabitants, at least during the latter part of the archaeological sequence. Acorns become available in the fall, thus providing a rich resource during the time of year when other plants are far past their peak availability.

Access to the oak woodland was very simple since oaks grew in the local drainages of Aliso Creek and could have been exploited with little effort.

Coastal Sage Scrub Community: This community consists primarily of shrubs that seldom exceed a height of two meters. Various species of sage, buckwheat, some flowering plants and grasses form the primary vegetation. Seeds are the primary resource of the sage scrub community, but edible stems, stalks, shoots, greens, roots, bulbs and some berries can also be found. Rabbits and rodents abound in the sage scrub community. The sage scrub community covers the hills around and within the study area The resources of the sage scrub community are primarily available in the spring. During prehistoric times the sage scrub covered a large percentage of the surface, representing a very rich resource .

Access to the sage scrub community required only ascending the hills and canyons of the study area.

Chaparral Community: The chaparral community consists of dense brush normally found on rocky slopes, usually at slightly higher elevations than the oak woodland community. Manzanita, chamise, mountain mahogany, scrub oak and ceanothus are typical constituents Seeds, berries, bulbs, shoots and roots are the primary resources available in this community. The chaparral is a primary deer habitat (Moratto 1984)

The chaparral community was located on the higher elevated slopes north of the study area and would have required a day's walk to be reached by prehistoric populations.

Cultural: The current study area is inhabited by a Native American group ethnographically known as the Gabrielino. The generally accepted boundary with the Juaneño group to the south is Aliso Creek, flowing directly adjacent to the study area along its western margin (Bean and Smith 1978, Kroeber 1925) It is likely that the study area contains traces of both these cultures

The names the Native American groups applied to themselves are largely unknown, they are known by the names the Spanish coined as they moved into Native American territories. The name "Gabrielino" identifies those people who were under the control of the Spanish Mission San Gabriel, while the name "Juaneño" denotes those people who were under the administration of the Spanish at Mission San Juan Capistrano

The Juaneño and Gabrielino language, as well as that of the Luiseño to the south, was derived from the Takic family, part of the Uto-Aztecan linguistic stock, which can be traced to the Great Basin area (Driver 1969) This language group represents an origin quite different from that of the Chumash to the north and the Ipai and Tipai to the south Their language is derived from the Hokan stock of the Yuman language family originating in the American southwest. Linguistic analysis suggests that at one time (probably before 500 B C E.) the entire southern California coastal region was populated by Hokan speakers who were gradually separated and displaced by Takic speaking immigrants from the Great Basin area The timing and extent of the migrations and their impact on indigenous peoples is not well understood and any data related to it represents a valuable contribution to the understanding of local prehistory.

Prehistoric Era: The archaeological heritage of California is quite rich, probably more so than any other North American region north of Mexico However, the archaeology of California is not well known The native Californians were generally quite peaceful and did not often offer warlike resistance to European settlement. Consequently, they did not gain great notoriety during the settlement period. Also, the original Californians were first under the control of the Spanish and then the Mexican governments and only later, after much of their culture had been destroyed by disease and displacement, were they subsumed under the United States government. There was only a minor Native American presence remaining in California when it became a United States possession and massive development began For this reason, very little interest in the natives and

their prehistory was initially generated. It was many years later before the size, complexity, and extent of archaeological deposits in the state became apparent.

Homo Sapiens has been present in the New World since perhaps 10,000 to 11,000 years B.C.E. There is some evidence that humans were present long before this date, but it is inconclusive and has not yet been accepted by most archaeologists. The earlier sites are all controversial in that they lack definite dateable context and material. Such sites can be interpreted in various ways, particularly in relationship to their age The few generally accepted remains indicate a very small, mobile population apparently dependant on hunting of large game animals as the primary subsistence strategy. Other sources were exploited, but the bulk of the traces remaining today are related to game hunting (Chartkoff and Chartkoff 1984, Moratto 1984)

The Chartkoffs identify the earliest portion of the archaeological sequence - to about 9,000 B.C.E. - as the Paleo-Indian Period (Warren's 1968 San Dieguito Tradition). The surviving material culture of this period consists primarily of large, extremely well made projectile points and large but crude tools such as scrapers and choppers. Encampments were never permanent, based in part on the paucity of significant midden areas that would have degraded to undetectability given the great age, and were probably sited near a major kill. Occupation would have persisted only until the resources of that kill were exhausted Such an economy, using only a small fraction of the available resources, would not have supported a large population, therefore, it is probable that the Paleo-Indians lived in groups no larger than extended families and that contact with other such groups was infrequent

A general chronology has been developed for the Southern California coastal region by Wallace (1955) for the ensuing periods

The Millingstone Horizon (or Encinitas Tradition, as defined by Wallace (1968)) people (ca. 5500-1500 B.C.E.) practiced a mixed hunting and gathering food procurement strategy. Game hunting still played an important role in the economy, but by this time the Native Americans had learned to exploit the hard seed resources of the coastal sage scrub and chaparral ecological communities. The rapid extinction of the large mammals that the Paleo-Indian had previously been exploiting necessitated this shift in resource exploitation The principle implements used to process the seeds, manos and metates, appear in large numbers for the first time in this horizon,

and are especially numerous near the end of this tradition. Other specialized tools were developed to process the increased resources utilized by Millingstone peoples. Settlement size seems to have increased and an annual round of seasonal migrations may have been practiced as movements coincided with ripening vegetal resources. Some formal burials are also evident.

The Intermediate Horizon, locally known as the Campbell Tradition (ca 1500 B C.E. to C.E. 1000), is characterized by a shift away from primarily vegetable food exploitation to a more maritime subsistence strategy It is during this time that the mortar and pestle were introduced, enabling acorn processing to begin

In the Late Prehistoric Horizon (or Shoshonean Tradition), groups began to center around trade routes and there was a greater use of food resources with more land and sea mammal hunting to complement collecting. The pattern of life in this Late Horizon was more complex. More classes of artifacts were being produced and they exhibited a more sophisticated degree of workmanship The recovery of a greater number of small, finely chipped projectile points suggests a greater utilization of the bow and arrow. Other items include steatite containers, shell fishhooks, perforated stones, bone tools, personal ornaments, asphalt adhesive and elaborate mortuary customs In addition, the population increased and larger villages evolved (Wallace 1955·223) It is during the Late Prehistoric that the emigrants from the Great basin appeared in the Los Angeles and Orange County area. These peoples were very quick to adopt most of the local traits, because it is difficult to separate the archaeological assemblages of the emigrants from those of the indigenous peoples on the basis of artifact typology alone

The Moratto and Chartkoff chronologies are not the only ones in use and, in fact, are somewhat generalized because they address the entire state of California. The latest chronology to appear which has gained local acceptance is that of Koerper and Drover (1983). This chronology is based on extensive work at CA-ORA-119-A, a large multi-component site near the University of California, Irvine The site contained archaeological evidence from the Millingstone to the Historic period. The Koerper and Drover chronology is summarized in Table 1 below.

Table 1:

CHRONOLOGY, BASED ON KOERPER AND DROVER (1983)

PERIOD*	TEMPORAL SPAN	MAJOR DIAGNOSTIC TRAITS
Early Man or Paleo-Indian	? to 7,500 B.C.E. +/- ?	1. Lack of grinding implements. 2 Large, well made projectile points

Characteristics and adaptations:

1. Subsistence through hunting of large Pleistocene game animals
2 Temporary camps at large kills.
3. Group no larger than extended family.
4. Widespread. Covered most of North American continent, but no sites known locally.
5. Very small total population.

Milling Stone or Encinitas	7,500 B.C.E. +/-? to 1,000 B.C.E. +/- 250	1. Predominance of manos and metates. 2. Ornaments made of stone. 3. Large and often crude projectile points 4 Cogstones and discoidals 5. Charmstones 6. Some mortars and pestles near the end of the period.

Characteristics and adaptations:

1. Heavy reliance on hunting in early part of period Deer, rabbits and other small game associated with chaparral.
2. In middle to late part of period reliance was on hard seeds associated with chaparral.
3. Coastal groups utilized shellfish and near shore resources
4 Annual round based on ripening vegetable resources rather than animal migrations. This caused increased isolation leading to noticeable differences in culture in much smaller geographic areas
5. Probably about 50 persons in average group.
6. Very little noticeable change in last two thirds of period.
7. Colonization of Channel Islands near end of period.

*Both the Chartkoff and Koerper and Drover names are given for the various periods, with the Koerper and Drover names appearing first.

Table 1, continued:

CHRONOLOGY, BASED ON KOERPER AND DROVER (1983)

PERIOD	TEMPORAL SPAN	MAJOR DIAGNOSTIC TRAITS
Intermediate or Campbell	1,000 B.C.E +/- 250 to C.E. 750 +/- 250	1. Bone ornaments 2. Wide use of mortars and pestles along with manos and metates. 3. Use of steatite begins 4. Many discoidals. 5. Large projectile points trending to smaller in the last part of the period
		Characteristics and adaptations 1. Heavy reliance on acorns as food resource Hard seeds, small animals and coastal resources continue to be used. 2. Many more deep water ocean resources utilized. 3 First permanently occupied villages. 4. Large increases in local population. 5. Atlatl (spear thrower) in use. Bow and arrow probably introduced near end of period. 6 Some evidence of trade.
Late Prehistoric or Shoshonean	C.E 750 +/- 250 to Spanish contact	1. Shell ornaments 2. Mortar, pestle, mano and metate use continues. 3 Small, finely worked projectile points. 4 Wide use of steatite. 5 Some pottery vessels appear near the end of the period.
		Characteristics and adaptations: 1 Increased exploitation of all resources 2. Large populations, some villages had as many as 1,500 persons 3 Great increase in art objects 4 Much evidence of trade

Historic Era: Juan Rodriguez Cabrillo sailed along the coast of California in 1542 and, according to available records, stopping only at San Diego and the Channel Islands, was the first European to come into contact with the Gabrielino. The first Europeans to visit the Orange County area arrived in 1769 when Gaspar de Portola led an overland expedition from San Diego to Monterey. This expedition of 63 persons passed near the study area, using Arroyo Trabuco as a route to the north (Cramer 1988).

Mission San Gabriel, in Los Angeles County, was founded in September 1771 and all the Native Americans from the Los Angeles plain were persuaded to settle in its vicinity. The first permanent settlement in Orange County came when San Juan Capistrano was selected as the site for a Mission in the spring of 1775 By the early 1820s, all the native Americans from the coastal plains and foothills of what is now Orange County had been settled on Mission lands or on the growing rancho system.

The missions were charged with administering to the Indians within their areas. Mission life did give the Indians some skills needed to survive in their rapidly changing world, but the population was decimated by diseases for which they had no immunity. After 1810, mission population declined faster than it could be replenished The Mexican Revolution, beginning in 1821, overthrew Spanish control and the new Mexican government had a very different outlook on mission activities Secularization of the missions, planned under the Spanish was greatly accelerated by the Mexican government. Plans to provide land, training and living quarters for the Indians never developed and the mission lands were soon under the control of a relatively few influential Mexican families The Mexican-American war ended on 2 February 1848 with the signing of the treaty of Guadalupe Hidalgo. The treaty established California as a United States possession.

The study area was never a part of a Spanish or Mexican land grant. The foothill area was not good grazing terrain Instead, the Santa Ana Mountain area was to be ungranted and for the use of all. The Rancho Canada de los Alisos (Canyon of the Sycamores) abuts a portion of the study area to the west (Morgan 1973). This rancho was granted to José Serrano in 1842 and later expanded to 10,688 acres by Pio Pico (Smith 1977 in Dillon 1989). Present day Lake Forest was part of this grant; the last of Serrano's adobes is still preserved there The drought of the early

1860s forced Serrano to give up on the rancho It was broken up into smaller parcels and sold piecemeal; the bulk of the land forming the city of El Toro (now Lake Forest). By the 1880s much of the area had been settled by Anglo-American families. The Hausauer Ranch, within the property boundary, probably dates to the late 1920s and was an active ranch into the 1970s The ranch's main reservoir and olive orchard have been in existence since at least 1939 (Dillon 1989:32)

RESEARCH DESIGN

Theoretical Basis: The theoretical approach of this report is primarily cultural ecological in nature. It is assumed that humans are part of the ecological system in which they exist and patterns of behavior are restricted by ecological constraints. Similarly, human populations have an effect on the environment as well and precipitate ecological change, either intentionally or accidentally (Jochim 1981) This approach applies to prehistoric as well as historic sites.

It is thought that Californians from the Middle Archaic Period up to the Pacific Period practiced an annual round adaptation The major habitation camp would be moved periodically as resources ripened. The habitation camp would be surrounded by specialized work stations where resources were collected and initially processed In general, it is thought that the major habitation camps were moved to progressively higher elevations as the year advanced, with a return to near-ocean locations for the winter season. The major habitations were occupied only for a few months each year, but the repeated use may have continued for many generations. By Pacific Period times, storage technology and a broadened resource base allowed settlements to be occupied throughout the year

Pertinent Local Conditions: The Saddleback Meadows area is one of a series of ridges and rounded knolltops bisected by numerous drainages emptying into Aliso Creek. The creek makes its way some 20 kilometers southwest into the Pacific Ocean south of present day Laguna Beach The area is ideally suited for exploitation of the range of resources available in the region All could be reached within a day's travel by local inhabitants Aliso, as well as Oso Creek, provided the inhabitants with a reliable, perennial source of water, an easy route leading to the coast and cobbles for lithic tool production

The little available information indicates that major settlements were located near reliable sources of water, but in areas that commanded a view of the surroundings The area surrounding an encampment or village was used for hunting, resource collecting and initial processing of those resources Such resources included lithic material for stone tool manufacture, animal resources and vegetable resources (shoots, roots, bulbs, seeds, berries, fibers, nuts, etc.)

Collecting and initial processing of material for chipped lithic tool manufacture leaves evidence in the form of damaged surfaces where material was removed, chipping waste from initial reduction of that material, hammerstones used in the reduction and cores from which viable material had been removed. A prehistoric chert quarry (CA-ORA-507: The Hoopaugh site) lying less than one kilometer south of the project area, was studied and recorded by Van Horn (1986). Milling tool production probably relied on the collection of suitable cobbles and would leave no trace. Hunting of game animals was an activity pursued in the Saddleback Meadows area. It is a well watered area that in prehistoric time hosted a wide variety of ecological communities. Game animals would have been abundant under these conditions and would certainly have been exploited by the prehistoric inhabitants. Evidence left by hunting activity may include blinds, lost or broken projectile points and animal bones within the habitation areas.

Vegetable resource collecting and initial processing was certainly an activity in the Saddleback Meadows area. Evidence for such is the abundance of grinding implements (manos and metates) found at area sites These artifacts found by themselves are evidence of vegetable resource collecting and initial processing. Only with a wide range of other artifact varieties do they constitute evidence of substantial habitation

It is therefore assumed that archaeological sites at Saddleback Meadows will include the possibility of relatively large seasonally occupied village sites located near a reliable water source as well as more numerous specialized use camps Seed collecting and processing stations will be located in more or less level areas in the vicinity of the desired vegetable resources. Chipped lithic tool manufacturing stations will leave traces of chipping waste products and tools such as hammerstones and cores. They will either occur by themselves or within larger site complexes.

PREVIOUS RESEARCH

Early reconnaissance operations were conducted near the present project area that only partially extended onto the Saddleback Meadows property. A 1975 reconnaissance by Howard, concerned with the proposed realignment of El Toro Road, included the westernmost edge of the current property, just east of Aliso Creek Howard reported no archaeological sites in the area, even though it is there that CA-ORA-710 and -711 lie.

Tadlock and Tadlock (1978). The first major archaeological investigation on the current project property was undertaken by Tadlock and Tadlock in 1978. The Tadlock's completed a surface examination of the project area - essentially the same boundary as the present project area - and discovered and recorded seven archaeological sites CA-ORA-710, -711, -712, -713, -714, -715 and -716 The sites follow the more level hills and benches of the property's main ridge running from Aliso Creek, near the western property boundary, eastward to the eastern property boundary These sites will be discussed in more detail below.

The Tadlock's recommended that a representative sample of artifacts be collected from the surface of each site as well as from the ridgetop between the sites Test trenches were then to be excavated by backhoe to determine the depth and dimension of the sites (Tadlock and Tadlock 1978:9)

Breece and Padon (1982): In July 1982, William Breece and Beth Padon performed a cultural resource reconnaissance and literature review of the proposed Phase II Foothill Transportation Corridor study. The study encompassed approximately 23 miles of proposed corridor routes from Little San Joaquin Canyon and Irvine Lake to the northwest to Cañada Gobernardo Canyon to the southeast (Breece and Padon 1982:1) The current study area made up only a small portion of this reconnaissance. During the course of the reconnaissance, the authors relocated three of the sites on the current study area CA-ORA-710, -711, and -713, although CA-ORA-711 was described as containing no artifactual material or midden soil CA-ORA-710 contained chert flakes, a chert core and a possible chopper CA-ORA-713 contained chert flakes and a chert core. CA-ORA-712 was also within the reconnaissance area but was not relocated by the researchers (Breece and Padon 1982 31&34)

The authors recommended controlled surface collection and test excavation followed by, if necessary, data recovery excavation at CA-ORA-710 (erroneously identified as -711). CA-ORA-711 was not relocated and was considered destroyed. No further work was deemed necessary (Breece and Padon 1082:33-34). No mention was made as to the recommendations for CA-ORA-713.

Dillon (1989): A cultural resources reconnaissance was undertaken by Brian Dillon in 1989 for Scientific Resource Surveys. Dillon was able to relocate CA-ORA-710, -713, -714, -715 and -716. CA-ORA-711 and -712 were not relocated. Dillon surmised that these two sites had been destroyed since they were originally recorded in 1978 (Dillon 1989.48) Dillon also discovered three new sites, now named CA-ORA-1255, -1256 and -1257. The historic Hausauer Ranch was located and described in detail, although not formally recorded. All sites on the property will be discussed in more detail below.

Dillon recommended that each of the sites on the property undergo a comprehensive surface collection and test excavation. Those sites determined to contain a subsurface deposit were to undergo a data recovery excavation that constituted mitigation of adverse impacts (Dillon 1989.92).

Bissell 1984: In October 1984, Ronald Bissell of RMW Paleo Associates discovered a major archaeological site on the grounds of Saint Michael's Priory The site lies on a small knoll above Aliso Creek, adjacent to and immediately north of the current study area. The site consisted of a dense scatter of ground and chipped lithic tools, including manos, scrapers, choppers, modified flakes, cores, hammerstones and debitage, in an apparent midden (Bissell 1984·3) The large site is likely to be related to the other sites on the Saddleback Meadows property as it lies only some 200 meters north of CA-ORA-710.

Maxon (1995): The author of the present report performed an archaeological investigation at Saddleback Meadows between September and November 1995. Most previously recorded sites were relocated. Some were not relocated The historic ranch was recorded and a new site was discovered and recorded. Six of the previously recorded sites underwent a surface collection and five of those underwent a test excavation All sites at Saddleback Meadows are listed in Table 2 below

Table 2: Archaeological Sites at Saddleback Meadows

Site	Recorder	Description	Importance/ Significance
CA-ORA-710	Tadlock & Tadlock 1978	Flakes, scrapers, choppers, hammerstones & manos	Important
CA-ORA-711	Tadlock & Tadlock 1978	Sparse flakes, cores & one chopper	Important
CA-ORA-712	Tadlock & Tadlock 1978	Flakes	Not important
CA-ORA-713	Tadlock & Tadlock 1978	Flakes, scrapers, cores, choppers & manos	Not yet determined
CA-ORA-714	Tadlock & Tadlock 1978	Flakes, cores, some quartz material	Not important
CA-ORA-715	Tadlock & Tadlock 1978	Flakes, cores, scrapers, choppers, hammerstones & manos Sophisticated artifacts exhibiting patination	Not yet determined
CA-ORA-716	Tadlock & Tadlock 1978	Flakes, cores & one chopper	Not important
CA-ORA-1255	Dillon 1989	Metate, core, scraper/spokeshave, blade, flake	Not important
CA-ORA-1256	Dillon 1989	Scraper plane, scraper	Not important
CA-ORA-1257	Dillon 1989	Mano	Not important
CA-ORA-1435H	Knell & Maxon 1995	Ranch complex with olive grove and holding pond	Not yet determined
CA-ORA-1437	Maxon 1995	Groundstone, debitage & thermally modified rock	Not yet determined

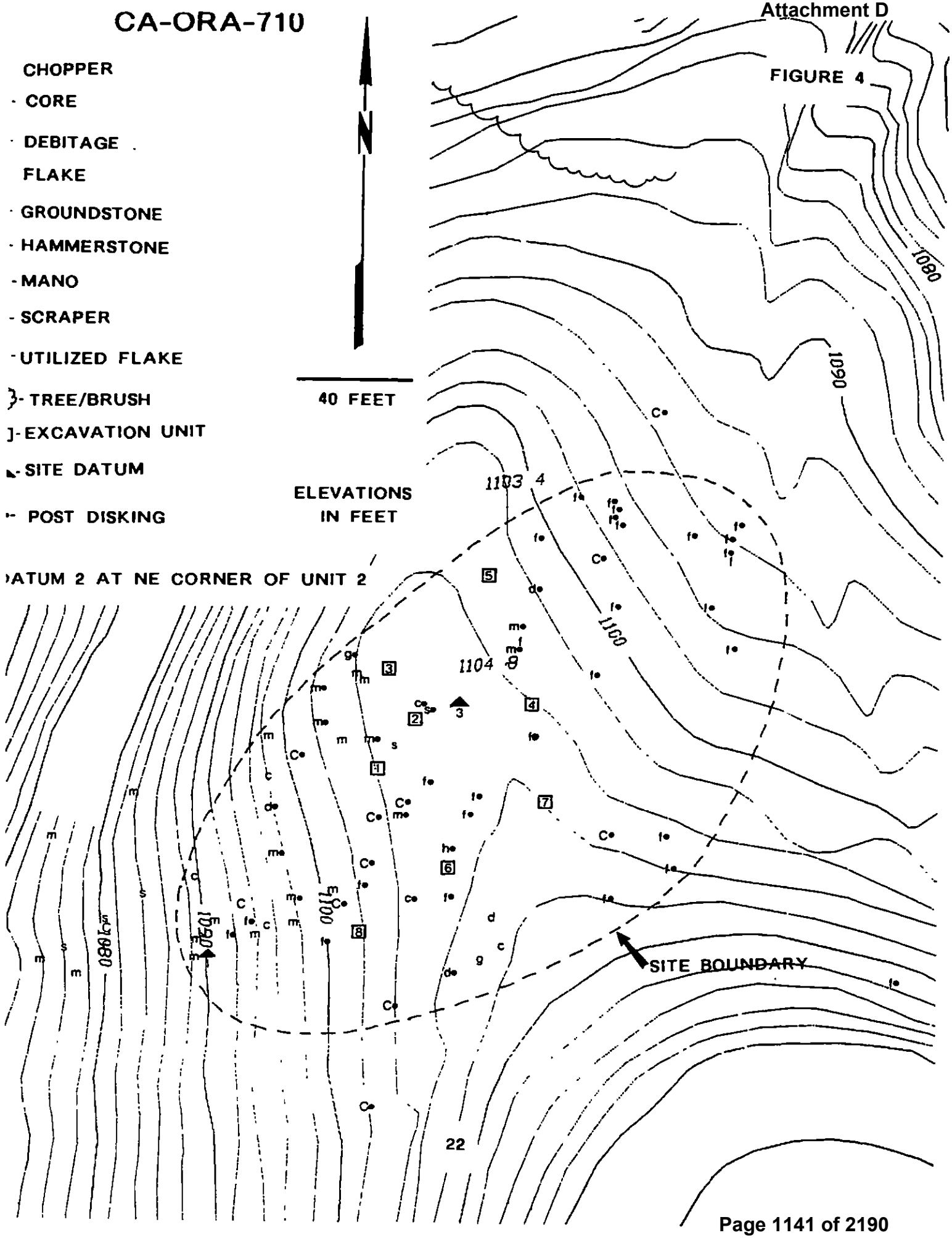
The revised plans for construction of 705 manufactured, single-family residential units will require extensive grading in preparation of construction. For this reason, every cultural resource previously identified on the property will be destroyed and impacts must therefore be mitigated prior to development. Each of the archaeological sites identified on the property will be discussed in detail below Included will be a summary of work performed and recommendations proposed for each site.

CA-ORA-710

The site is located on a relatively flat knoll or terrace, directly east of, adjacent to and 12 meters above Aliso Creek in the northwestern portion of the property (see Figure 4 below) Boundaries of the core of the site are approximately 43 by 55 meters. Outcrops of fossiliferous bedrock are evident on the site's surface

CA-ORA-710

FIGURE 4



The original recorders (Tadlock & Tadlock 1978) reported a wide range of artifacts over a rather large area. Subsequent archaeologists were not able to see artifacts to that extent Dillon (SRS 1989) discovered a chalcedony core, a chert flake and a burned piece of chert shatter as well as three "truncated" manos, which he apparently collected and removed from the site during his reconnaissance investigation. Truncated manos are discussed by Van Horn and Murray (1984). These manos were recovered at CA-ORA-486, along Aliso Creek, just a short distance from site CA-ORA-710. The specimens had been "truncated" or broken off at one end and the rough end pounded smooth. They have been associated with the processing of "cacomites" a Spanish term referring to varieties of edible roots, bulbs and corms (bulb-like stems) that are found in the site vicinity.

Initial work supervised by the author at the site (Maxon 1995) consisted of a surface examination and surface collection. This resulted in the recovery of 26 artifacts including 16 uni- and bifacial manos (one possibly truncated) and mano fragments composed of porphyry, granite and metavolcanics, and chipped stone implements including three choppers, two hammerstones, one core, and four pieces of debitage. Material types include metavolcanics, quartzite and quartz Subsequently, a disk pulled by a small bulldozer was employed to turn up the soil to a depth of approximately ten centimeters, for the purpose of uncovering near surface artifacts. This method, after a second surface collection, resulted in the recovery of an additional 56 artifacts including 11 groundstone implements eight manos composed of granite and porphyry, and three metate fragments - two of granite and one quartzite. Chipped stone implements included 12 cores of metavolcanics, chert and quartzite; two hammerstones; two choppers; three scrapers and 25 pieces of debitage made primarily of chert and metavolcanics

Eight one by one meter units were next excavated to determine the spatial extent of the site and verify the existence of a subsurface deposit Fifty-four artifacts were recovered and two of the units produced in situ features. Results of the excavation are summarized in Table 3 below A complete list of artifacts is provided in the artifact catalog in Appendix A

Table 3: CA-ORA-710

Recovered Item	Depth (in centimeters)						Total Items
	0-10	10-20	20-30	30-40	40-50	50-60	
Charcoal				1			1
Chopper	1			1	1		3
Core	2	2	1		1		6
Debitage	21	2	3	1			27
Mammal Bone					1		1
Hammerstone	2			1		1	4
Mano	1	1	2	3	1		8
Metate			2	1			3
Scraper						1	1
Total Level	27	5	8	8	4	2	54

Even though the scope of the test excavation was limited to a small fraction of the total CA-ORA-710 site area, a relatively wide range of tool and material types was recovered. This indicates that a number of activities were performed on the site Lithic tool production was evidently accomplished on site, based on the total recovery (surface collection and unit excavation) of 19 cores and a variety of waste flakes and other debitage as well as associated hammerstones. Scrapers and choppers were used for the processing of vegetable and wood fibers, as well as for working hides and bone. The processing of the hard seed resources associated with the coastal sage scrub and chaparral communities is evidenced by the recovery of 33 manos and mano fragments and six metates and metate fragments. The sites inhabitants were utilizing a range of material types to fashion tools: chert (31%), metavolcanics (23%), granite (15%), porphyry (11%), quartzite (9%), metasedimentary (7%) and smaller percentages of jasper, sandstone and quartz. Some of the chert may have been heat treated Van Horn (1986) indicates that some (ca. 5-6%) of the chert at the nearby Hoopaugh site (CA-ORA-507) was heat treated and Dillon (SRS 1989) recovered a piece of burned white chert shatter at CA-ORA-710. Apparently, chert and other silicious materials are "annealed" or made stronger by being heat

treated. The material is heat treated and then slowly cooled to permit the molecular structure to rearrange itself resulting in material that is easier to flake. It has been shown that heat treatment can be used to produce larger flakes (Crabtree & Butler 1964) and thermally altered cores have been recovered at several sites in northern California (Gould 1976, Van Horn 1976) Bordaz (1970) has suggested that the Upper Paleolithic Solutrean points from France were made using thermal modification

Thermally altered chert can be detected by luster, color change, crazing, potlidding and bleaching (Odell 1979) Van Horn (1986) described the amber chert from CA-ORA-507 as turning red, white and blue after being heated in a barbecue. Some of the chert at CA-ORA-710 shows evidence of being heat treated by a similar change in color and hairline fracturing.

Based on the characteristics of the artifacts recovered during the course of the test excavation, it is likely that the site is of Millingstone age The lack of evidence of the mortar and pestle being used at the site further bolsters this hypothesis The mortar and pestle technology is associated with the later Intermediate period when exploitation of the acorn became widespread

A large portion of the artifacts were recovered from the western portion of the site in Units one through three Units one and two produced the three in situ features, therefore, it is established that at a minimum, this portion of the site's subsurface remains intact. A feature consisting of two slab metates and a core was recovered from the 20-30 centimeter level of Unit 1 Two features were recovered from Unit 2: a mano, core and chopper from the 10-20 centimeter level and a slab metate, three manos and a chopper at the 30-40 centimeter level.

It is likely that a substantial subsurface deposit remains relatively undisturbed at the site; therefore, the site is deemed important/significant Preservation of the site is warranted, but not possible based on the current 705 unit plan. Data recovery is therefore necessary before ground disturbing activities begin. It is recommended that a data recovery excavation of approximately 30, one by one meter units be accomplished at the site. The data recovery excavation should focus on the following research questions·

1 What is the date range of occupation of the site?

2 What activities were accomplished at the site?

3. What was the settlement pattern of the site? Was it used seasonally or occupied year around?
4. Can the chert recovered at the site be associated with the chert quarry (CA-ORA-507) located less than one kilometer from the site?
5. Are truncated manos present on the site that suggest "cacomite" processing (see above)?

CA-ORA-711

The site is located on a low, flat ridge directly east of Aliso Creek and just north of a smaller tributary drainage (see Figure 5 below). The core of the site measures approximately 27 by 30 meters The original recorders (Tadlock & Tadlock 1978) reported a "sparse distribution of flakes, cores, and one chopper." Dillon (1989) was unable to relocate the site during his reconnaissance.

Initial work performed under the supervision of the author (Maxon 1995) consisted of a surface examination and surface collection. This resulted in the recovery of 30 artifacts including 12 uni- and bifacial manos (one or two possibly truncated) of granite, sandstone, metavolcanics and porphyry Chipped stone implements recovered include two cores, two hammerstones, one uniface, one biface, one scraper plane and 11 pieces of debitage composed of chert, porphyry, metavolcanics and quartzite. Subsequent surface collection during the course of excavation produced 16 additional artifacts including three manos, one metate, four cores, one hammerstone and seven pieces of debitage. Material types included chert, metavolcanics, granite, porphyry and quartzite.

Ten 1 x 1 meter excavation units and one feature excavation were then placed in an attempt to delineate the site boundary and verify the existence of a subsurface deposit. One hundred-twelve artifacts, excluding historic or modern items, were recovered from the subsurface including four in situ features Table 4 below summarizes this information

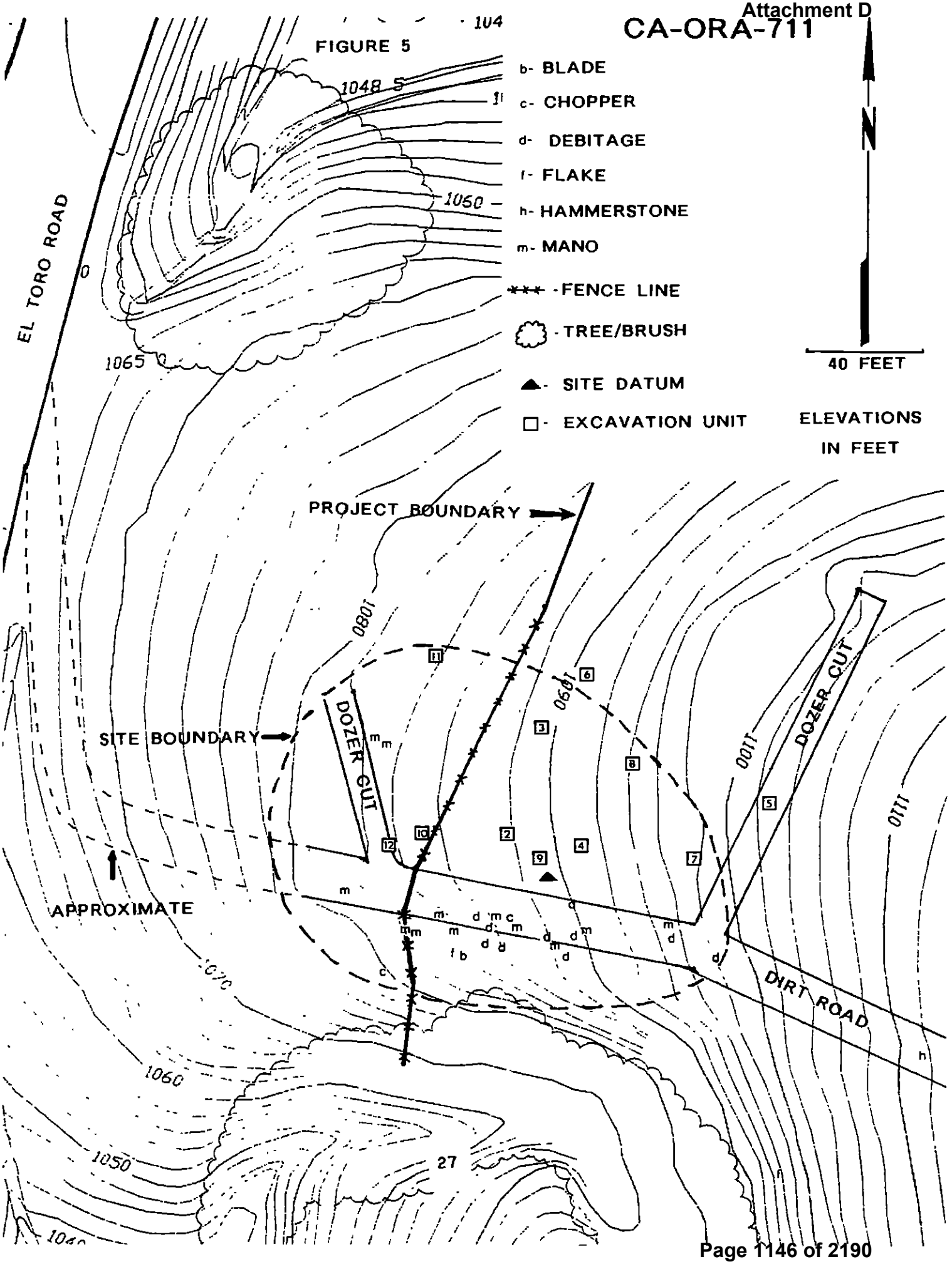


FIGURE 5
b- BLADE
c- CHOPPER
d- DEBITAGE
f- FLAKE
h- HAMMERSTONE
m- MANO
FENCE LINE
TREE/BRUSH
SITE DATUM
EXCAVATION UNIT
N
40 FEET
ELEVATIONS IN FEET
EL TORO ROAD
PROJECT BOUNDARY
SITE BOUNDARY
APPROXIMATE
DOZER CUT
DOZER CUT
DIRT ROAD
1048.5
1050
1065
1080
1090
1100
1110
1070
1060
1050
1040
27

Table 4: CA-ORA-711

Recovered Item	Depth (in centimeters)						Total Items
	0-10	10-20	20-30	30-40	40-50	Feature	
Chopper			2		3		5
Core	1		2		3	1	7
Debitage	25	11	12	4	10	4	66
Hammerstone	1		4		1		6
Mano	2	1	10	1	5	5	24
Metate			1		1	2	4
Total Level	29	12	31	5	23	12	112

As with CA-ORA-710, excavation at CA-ORA-711 was limited to a small fraction of the total site area And similarly, a relatively wide range of tool and material types was recovered. This, again, indicates that a number of activities were performed on the site. Lithic tool production activities are evidenced by the recovery of 13 cores and a variety of waste flakes and other debitage, as well as associated hammerstones The recovery of 39 manos and mano fragments and five metates and metate fragments is strong evidence that processing of the hard seed resources associated with the coastal sage scrub and chaparral communities was being accomplished. Scrapers and choppers were being utilized to process vegetable and wood fibers, as well as for working hides and bone A single porphyry scraper plane was recovered from the surface of the site, suggesting the possible processing of agave/yucca (Kowta 1969) or other vegetal material (Salls 1985). The sites inhabitants were utilizing a wide range of material types for the manufacture of lithic tools: chert 31%, metavolcanics 25%, granite 17%, quartzite 11%, porphyry 9%, sandstone 5%, and schist 1%. Some of the chert recovered may have been heat treated (see discussion of CA-ORA-710 above)

Based on the characteristics of artifacts recovered at CA-ORA-711, as well as the lack of evidence of mortar and pestle technology, it is probable that the site is of Millingstone age

A majority of artifacts recovered from CA-ORA-711 was located in units two, three, four, nine, ten and twelve on both sides of the property boundary fence on the lower, flatter area of the

knoll Units five and six produced no prehistoric artifacts. The existence of in situ features in Units two, nine, ten and twelve suggests an intact subsurface deposit. All of the features contain an assortment of *in situ* lithic tools including manos and metates, hammerstones, cores and debitage. CA-ORA-711 is deemed an important/significant site and an intact subsurface deposit remains undisturbed on the site. Preservation of the site is warranted, but not possible based on the current 705 unit plan Data recovery is therefore necessary before ground disturbing activities begin. It is recommended that a data recovery excavation of approximately 30 one by one meter units be accomplished at the site. The data recovery excavation should focus on the same research questions that were generated for CA-ORA-710

CA-ORA-712

The site was first recorded by Tadlock and Tadlock (1978) and described as being on a relatively flat hill overlooking CA-ORA-710 and 711 and Aliso Creek. It was described as a chipped lithic scatter, heavily damaged by bulldozing. Cultural material could not be relocated by subsequent researchers. The site is therefore not important/significant, but the area should be monitored by a qualified archaeologist during mass grading operations If artifacts are discovered, the site can be reevaluated

CA-ORA-713

The site is located on a ridge between Oso and Aliso Creeks and on the ridge's north facing slopes as well as a relatively flat area at the slopes base (see Figure 6 below). The area measures approximately 150 by 215 meters and could comprise two or more sites. The original recorders of the site (Tadlock and Tadlock 1978) reported finding flakes, scrapers, cores, choppers and manos. Breece and Padon (1982) reported only three flakes. Dillon (SRS 1989) found no "portable artifacts", but discussed a sandstone concretion boulder with a cupule ground into its upper surface

Initial work on the site (Maxon 1995) consisted of a surface examination and surface collection This resulted in the recovery of 14 artifacts including two metavolcanic cores, a quartzite flake, a piece of metavolcanic shatter, a granite chopper, eight uni- and bifacial,

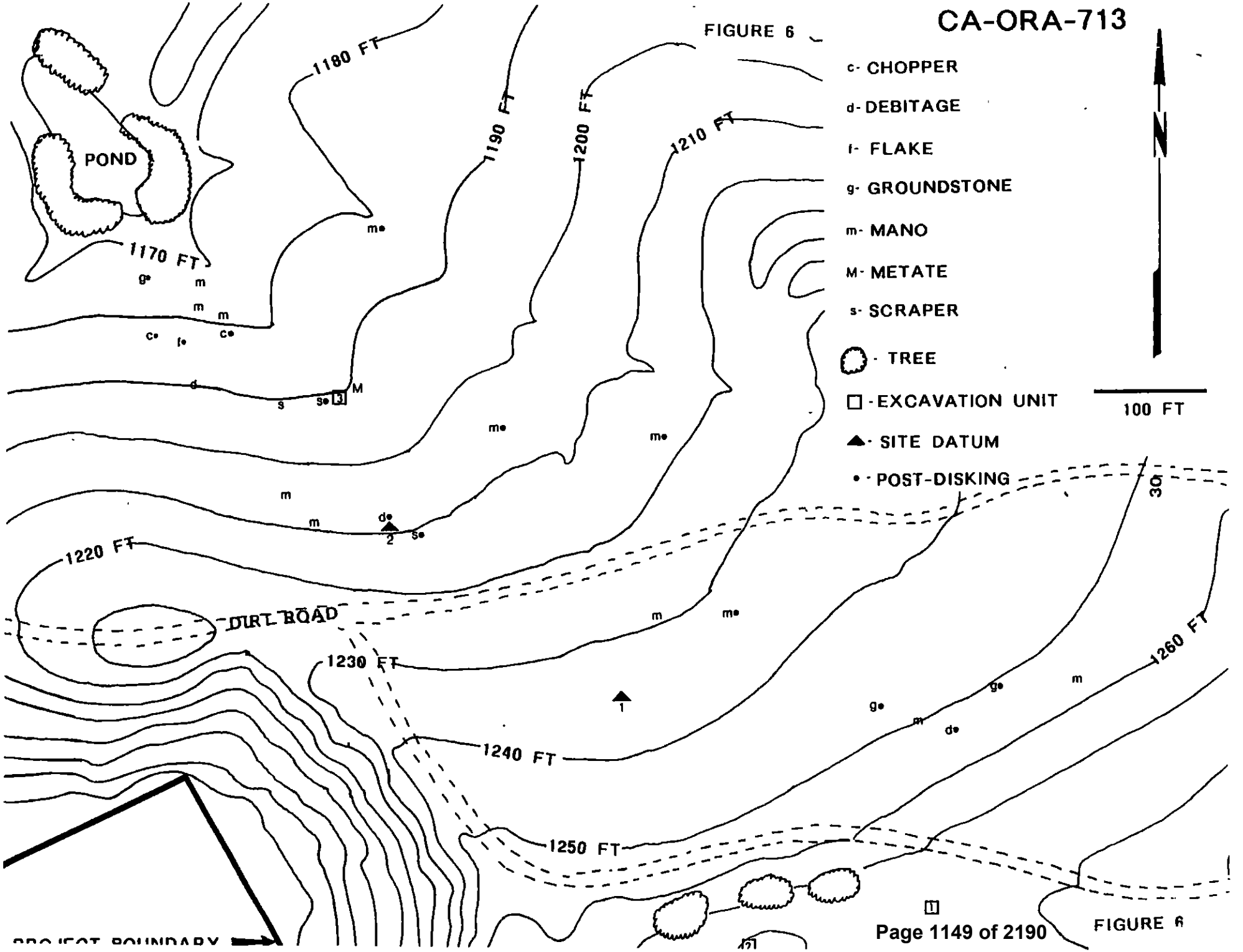


FIGURE 6
CA-ORA-713
c- CHOPPER
d- DEBITAGE
f- FLAKE
g- GROUNDSTONE
m- MANO
M- METATE
s- SCRAPER
- TREE
- EXCAVATION UNIT
- SITE DATUM
- POST-DISKING
100 FT
N
POND
1170 FT
1180 FT
1190 FT
1200 FT
1210 FT
1220 FT
1230 FT
1240 FT
1250 FT
1260 FT
DIRT ROAD
PROJECT BOUNDARY

porphyry and granite manos and a granite basin metate fragment The cupule noted by Dillon (SRS 1989) was seen, but the current researchers have serious reservations regarding the cultural nature of the cupule. Subsequently, a disk pulled by a small bulldozer was employed to turn up the soil to a depth of ten centimeters to expose near surface artifacts. This method resulted in the recovery of an additional 14 artifacts including three scrapers of metavolcanics and granite, two quartzite cores, three pieces of metavolcanic and quartzite debitage and six manos, uni- and bifacially ground, composed of granite and porphyry.

Three one by one meter units were excavated in distinct areas of the large site, two on the ridgetop and one at the base of the slope that yielded the majority of the surface artifacts. All three units were sterile - producing no cultural material

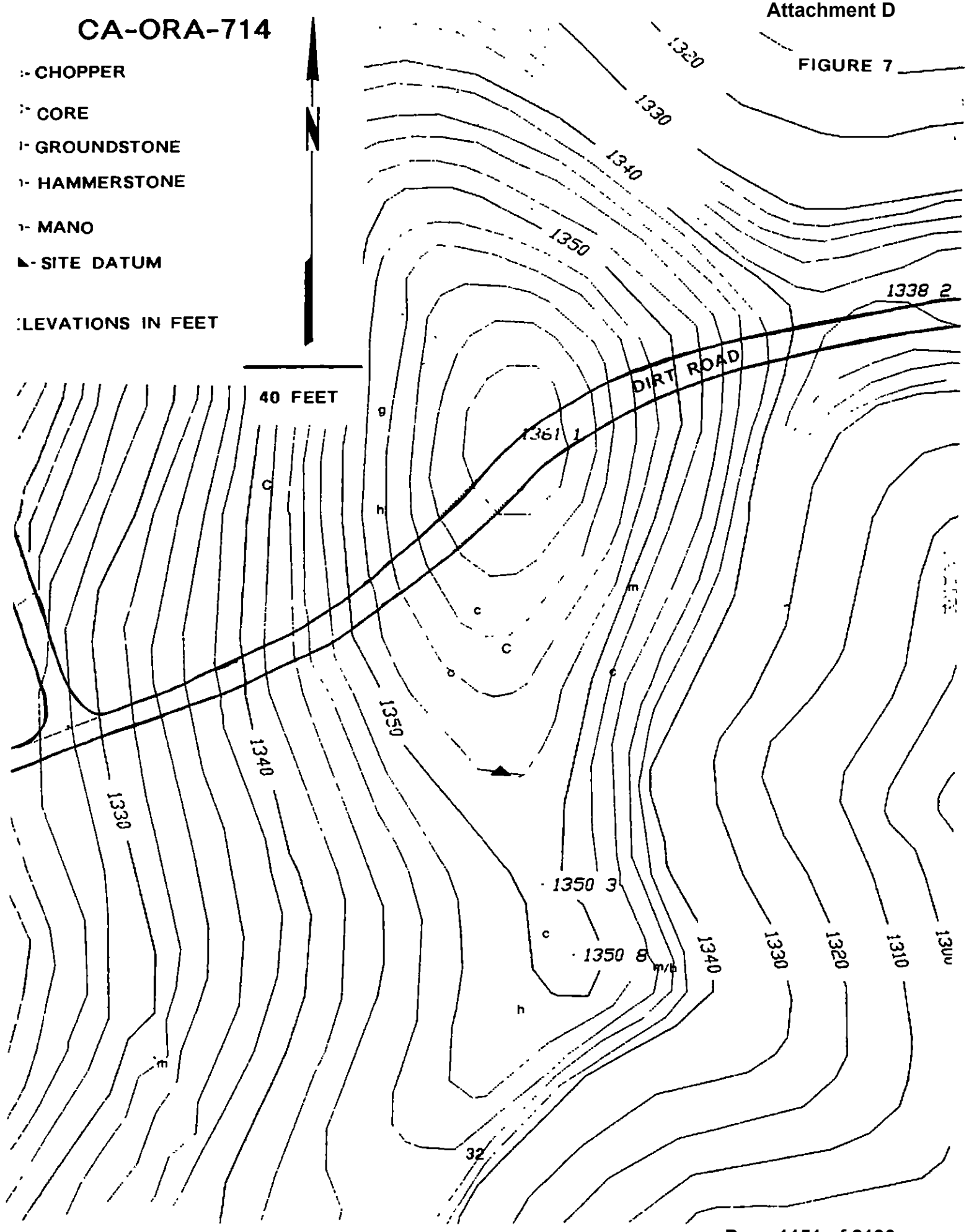
Since artifacts were scattered over a large area, a number of unrelated encampments occupied over a period of time may be represented The importance/significance of the site is as yet unknown. It is therefore recommended that controlled grading under the guidance of a qualified archaeologist be accomplished before the commencement of mass grading Should clusters of artifacts be discovered, additional units could be excavated in those specific areas.

CA-ORA-714

The site is located on a domed hill on the ridge between Oso and Aliso Creeks, west of CA-ORA-713 and just to the south of a steep cliff leading down to a large Oso tributary drainage (see Figure 7 below). Tadlock and Tadlock (1978) called the site a probable quarry containing assayed stones, but Dillon (SRS 1989) reported two artifacts. The presence of bedrock near and at the site's surface eliminates the possibility of extensive subsurface deposits. Bleached cow bones litter the ridgeline indicating either a carcass dumping ground or a carnivore feeding area The site measures some 60 by 30 meters.

Work undertaken at this site (Maxon 1995) was essentially a surface examination and surface collection Twelve artifacts were recovered as a result of this procedure including three unmodified hammerstones of metavolcanics and porphyry, two cores of quartz and chert, four choppers of porphyry and metavolcanics and three uni- and bifacial manos of porphyry

FIGURE 7


CA-ORA-714
CHOPPER
CORE
GROUNDSTONE
HAMMERSTONE
MANO
SITE DATUM
ELEVATIONS IN FEET
N
40 FEET
DIRT ROAD
1361.1
1338.2
1350.3
1350.8
1320
1330
1340
1350
1310
1300
32

No units were excavated on the site because of the presence of bedrock at the surface, which eliminated the possibility of a significant subsurface deposit.

The site was probably a short term encampment, perhaps the result of a single occurrence and because of the presence of exposed bedrock, a subsurface deposit is not expected The site is therefore considered not important/significant and it is recommended that the area be monitored by a qualified archaeologist during mass grading operations If artifacts are discovered, the site can be reevaluated.

CA-ORA-715

The site is located on a relatively flat, rounded hill comprising the ridge above the headwaters of Oso Creek, overlooking Aliso Creek (see Figure 8 below). Site dimensions are approximately 55 by 65 meters. A bulldozer cut in the site area establishes that soils have considerable depth

Initial work on the site (Maxon 1995) consisted of a surface examination and a surface collection Thirty two artifacts were recovered including 13 uni- and bifacially ground manos, four of them fragments, composed of porphyry, sandstone, metavolcanics, quartzite and granite, four choppers of quartzite, metavolcanics, porphyry, and quartz, two bidirectional metavolcanic cores, one metavolcanic anvil, one metavolcanic hammerstone and eleven pieces of debitage of metavolcanics, chert, jasper and quartzite

Subsequently, a disk pulled by a small bulldozer was employed to turn up any subsurface artifacts within ten centimeters of the surface This procedure resulted in the recovery of nine additional artifacts including two choppers of metavolcanics and quartzite, one quartzite axe, one multidirectional metavolcanic core, two pieces of metavolcanic debitage, one bifacial quartzite mano and two unifacial porphyry mano fragments

Next, four 1 x 1 meter units were excavated to determine if a subsurface deposit existed on the site . The existence of a subsurface deposit was not substantiated, because the excavation produced negligible artifacts. Those cultural materials recovered could have been deposited via rodent disturbance Table 5 below, summarizes the excavation at CA-ORA-715

FIGURE 8

CA-ORA-715

a- ANVIL
A- AXE
c- CHOPPER
C- CORE
d- DEBITAGE
f- FLAKE
g- GROUNDSTONE
m- MANO
-TREE/BRUSH
-EXCAVATION UNIT
-SITE DATUM
•- POST-DISKING

40 FEET

ELEVATIONS IN FEET

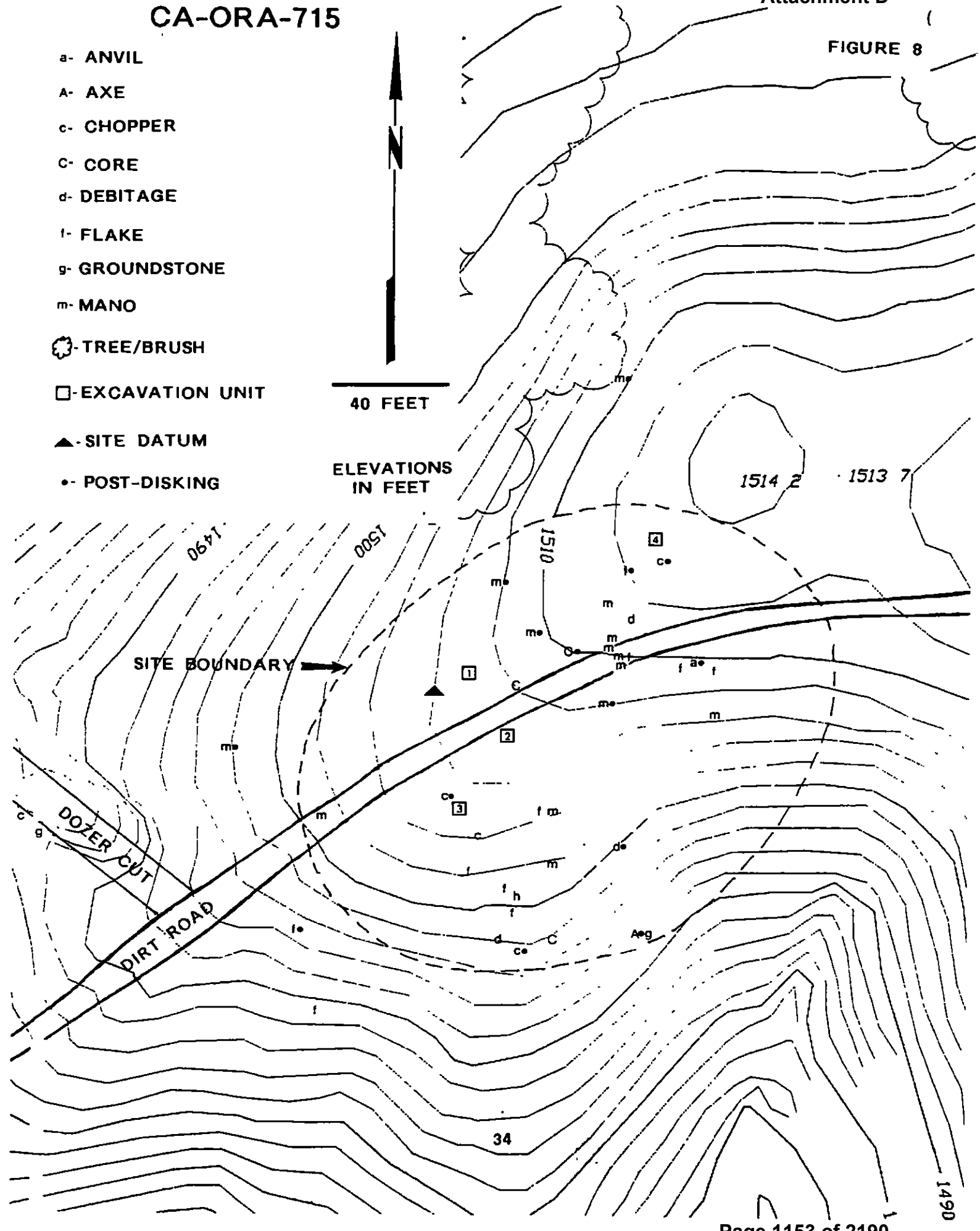


Table 5: CA-ORA-715

Recovered Item	Depth (in centimeters) 0-10	Total Items
Debitage	4	4
Total Level	4	4

The importance/significance of the site is as yet unknown It is therefore recommended that controlled grading under the guidance of a qualified archaeologist be accomplished at the site before the commencement of mass grading. Should clusters of artifacts be discovered, additional units could be excavated in those specific areas

CA-ORA-716

The site is located on a high hilltop in the northeastern corner of the project area Tadlock and Tadlock (1978) reported finding a negligible number of flakes on the westerly portion of the site and flakes, cores and a redeposited chopper on the central and eastern portion Dillon (SRS 1989), then reports finding just one basalt core at the site area and comments that much of the surface of the site has been graded to and below the surface of bedrock.

Relative to the current project, the site, or what is left of it, lies off the property to the west, therefore, no further action is required.

CA-ORA-1255

The site lies on the lower drainage of a small knoll creating an upland pond and overlooking a steep-sided drainage (see Figure 9 below). It is approximately 25 by 25 meters in size Dillon (SRS 1989) described the site as lying approximately 50 meters southwest of the pond in a natural amphitheater formed by a series of low, rounded knolls The site was apparently on the backslope of the knoll creating the pond Artifacts recovered by Dillon include one sandstone metate fragment, one core, two flakes and a quartzite prismatic blade.

Initial work on the site (Maxon 1995) consisted of a surface examination and surface collection. One metavolcanic flake was recovered by this method Subsequently, two .50 by one

CA-ORA-1255

FIGURE 9

FLAKE

TREE/BRUSH

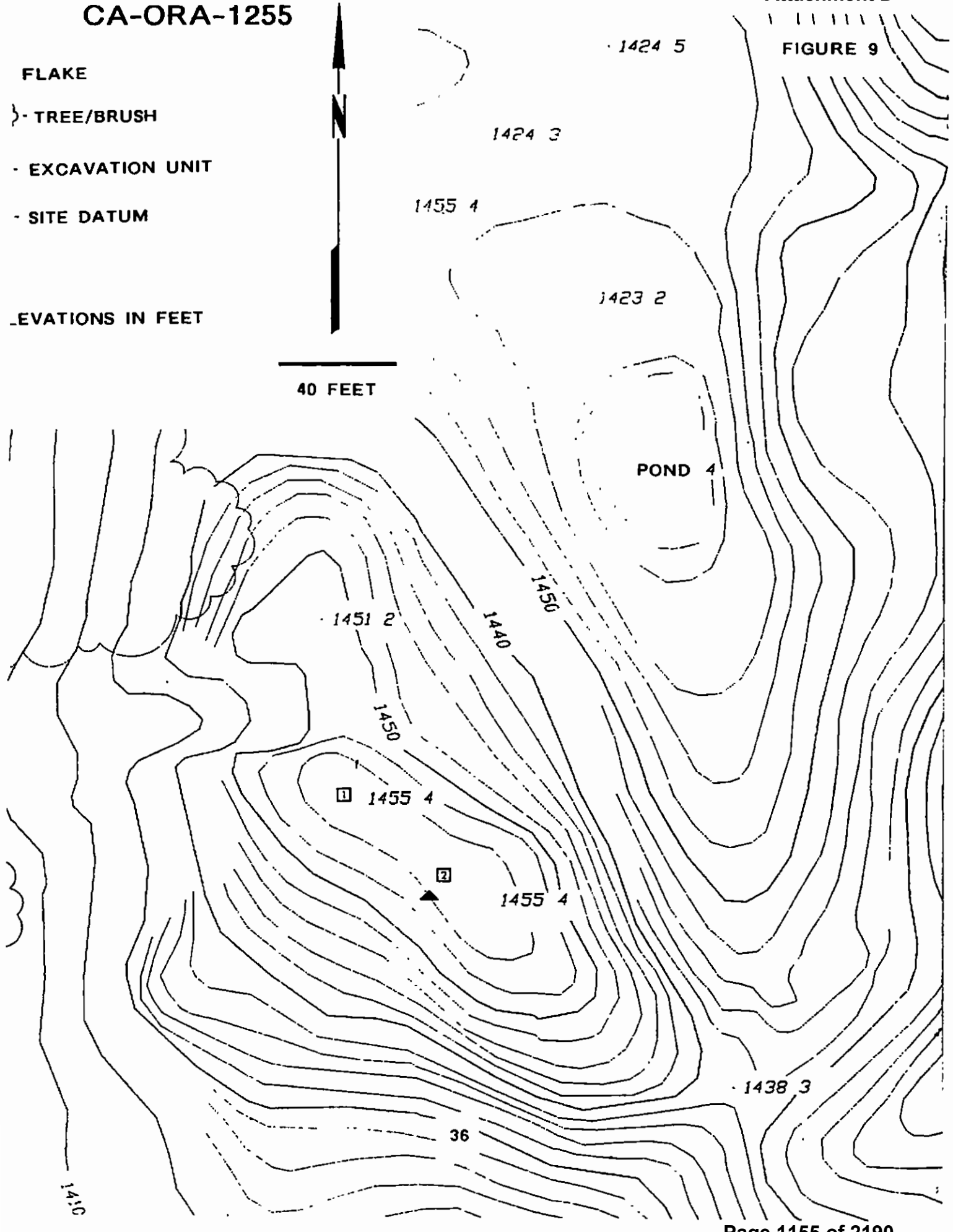
EXCAVATION UNIT

SITE DATUM

ELEVATIONS IN FEET

N

40 FEET



meter units were excavated on the top of the knoll. Unit one was excavated to 20 cm., Unit two to 30 cm The lone artifact recovered was a piece of metavolcanic shatter in the 10-20 cm. level of Unit 2. The units were very shallow, because a very light colored decomposing bedrock sand was encountered at those levels and the units were abandoned.

Based on the dearth of cultural materials recovered, the site is deemed not important/significance and no further work is necessary. It is recommended, however, that a qualified archaeologist be present to monitor the commencement of clearing/grading If additional artifacts are recovered, the site can be reevaluated.

CA-ORA-1256

The site lies to the south and downslope from the southwest margin of CA-ORA-715, along a brushy fingerline ridge. Dillon (SRS 1989) first recorded the site and reported finding a large, crude, "early" appearing scraper plane and an andesite core/scraper.

The site was not relocated during the surface examination of the current project and has been likely destroyed. The site is not considered important/significant, however, it is recommended that a qualified archaeologist be present to monitor clearing/grading operations. If additional artifacts are recovered, the site can be reevaluated

CA-ORA-1257

The site lies to the west and downslope of a low knoll directly west of Aliso Creek, and north of a steep cliff. Dillon (SRS 1989) recorded the site and reported finding a unifacial granite mano and a sandstone bedrock feature containing two cupules or incipient bedrock mortars He commented that the mano was not truncated like the other three found at CA-ORA-710, but may have been used in conjunction with the bedrock feature for grinding purposes therefore he called it an incipient bedrock mortar.

During a prior visit to the site the small boulder containing the purported cupules was seen, and during the current project it was again located The current researchers doubt the cultural nature of the cupules They are in very soft stone and would have been most ineffective as grinding implements.

The site was carefully examined for cultural materials during the project (Maxon 1995). No artifacts were seen or recovered. Therefore, the site is considered not important/significant; however, it is recommended that a qualified archaeologist be present during clearing/grading operations. If additional artifacts are recovered, the site can be reevaluated.

CA-ORA-1435H (Hausauer Ranch)

The site is located at the bottom of a deep drainage near the center of the property (see Figure 10 below) It is surrounded by dense foliage (oak, eucalyptus and pepper trees). The site is a ranch complex comprised of a residence, barn (collapsed), several out structures and a holding pond surrounded by a large olive grove numbering nearly 100 trees. The ranch buildings are in an advanced state of decay and have additionally been vandalized. The site complex measures approximately 275 by 100 meters.

Work performed on the site (Maxon 1995) included examining the surface of the entire ranch area, mapping and describing all the structures associated with the ranch, and preparing a site recording form

Because no in depth work has been accomplished on the site, its importance/significance has not yet been determined It is therefore recommended that a thorough surface collection and excavation of a sufficient number of backhoe trenches (approximately 10-20) be accomplished at the site to provide the data for site evaluation. Subsequent work will depend on the results of test excavation of the site. Data recovery work may become necessary after evaluation.

CA-ORA-1437

This newly discovered site lies on a rounded knolltop at the northern edge of the property overlooking a small drainage leading south-westward into Aliso Creek (see Figure 11 below). The site is approximately 140 meters northwest of CA-ORA-1255 and measures approximately 20 by 20 meters.

The site was discovered serendipitously (Maxon 1995) as the reconnaissance crew was searching for CA-ORA-1255. Work performed on the site (Maxon 1995) included a surface

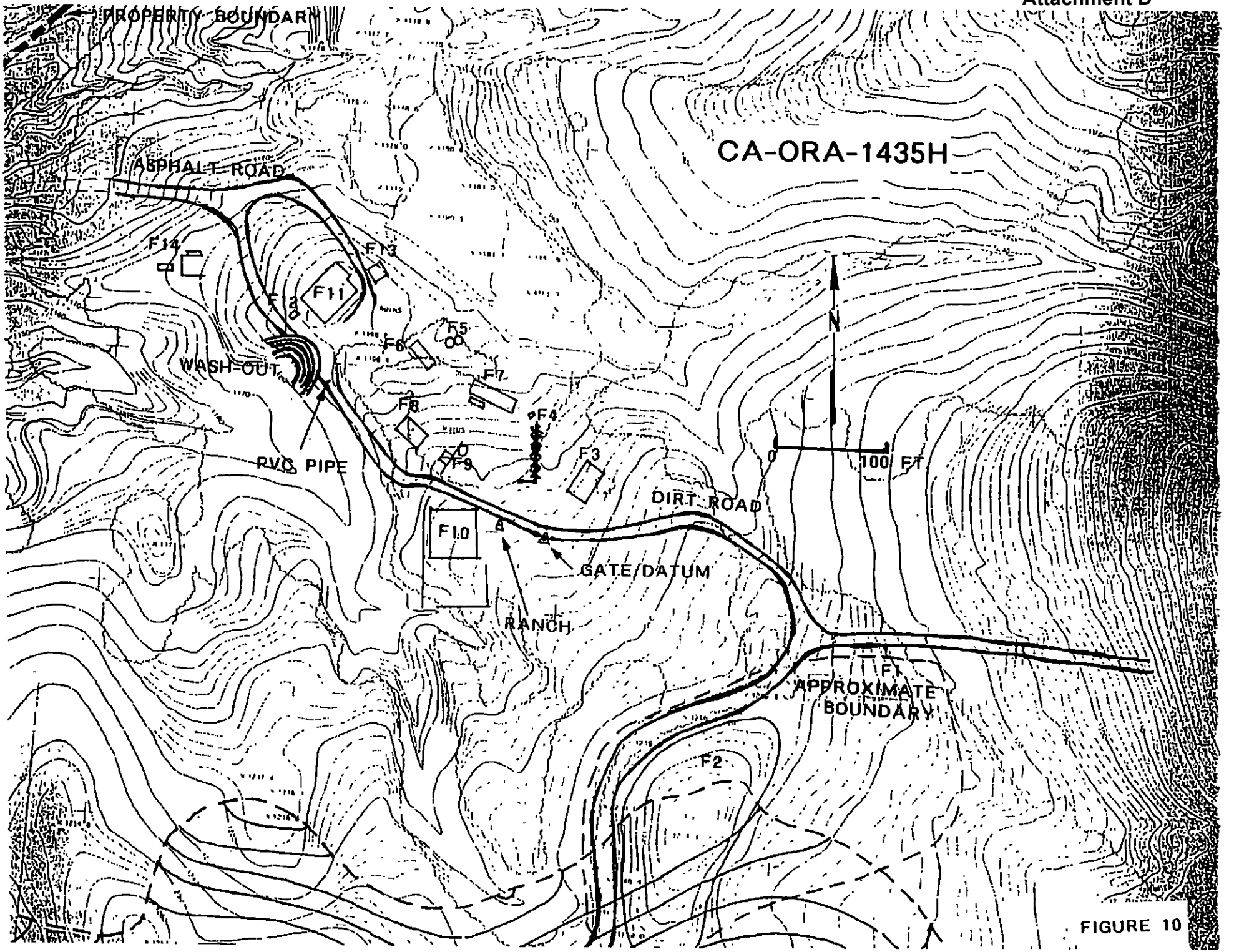
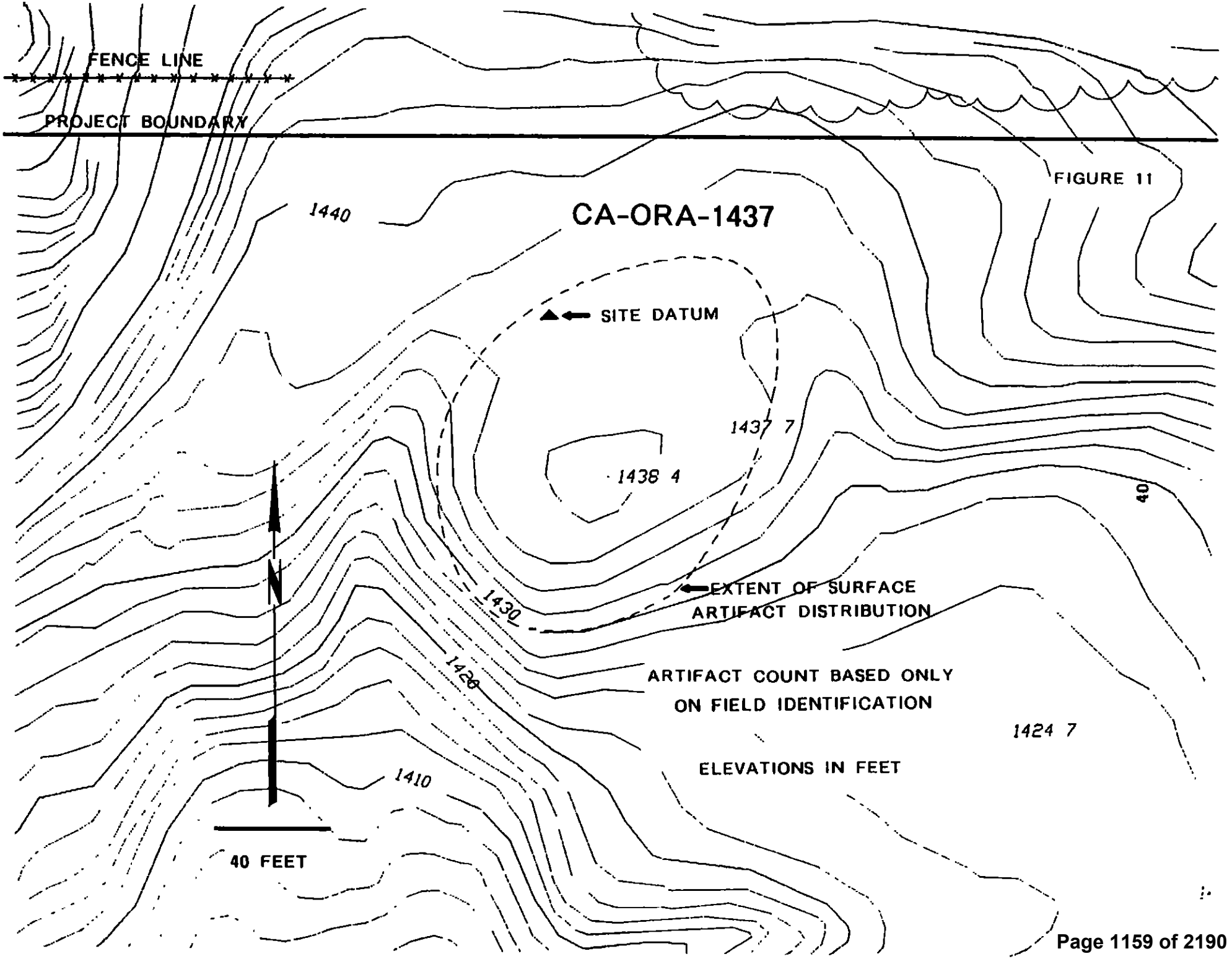

PROPERTY BOUNDARY
CA-ORA-1435H
ASPHALT ROAD
F14
F13
F11
F12
F5
F6
WASH-OUT
F7
F8
F4
F9
F3
PVC PIPE
N
0
100 FT
DIRT ROAD
F10
GATE/DATUM
RANCH
F1
APPROXIMATE
BOUNDARY
F2

FIGURE 10


FENCE LINE
PROJECT BOUNDARY
FIGURE 11
CA-ORA-1437
1440
SITE DATUM
1437 7
1438 4
40
EXTENT OF SURFACE
ARTIFACT DISTRIBUTION
1430
1420
ARTIFACT COUNT BASED ONLY
ON FIELD IDENTIFICATION
1424 7
ELEVATIONS IN FEET
1410
N
40 FEET

examination and the subsequent recording of all identified artifacts by surveyor's transit and stadia radiation methods Twenty-nine items were identified including mano fragments, metate fragments, cores and flakes. The items were not collected, precluding the possibility of further study (material types, measurements, weights) of the artifacts. Finally, an archaeological site recording form was prepared for the site

Because no in depth work has been accomplished on the site, its importance/significance is not known It is therefore recommended that a thorough surface collection and unit excavation be accomplished at the site to provide the data for site evaluation. Subsequent work will depend on the results of test excavation of the site.

RESPONSE TO COMMENTS

In March 1996, comments to the Draft Environmental Impact Report No 561 were submitted to Raymond Brantley, Chief of the County of Orange, Environmental and Project Planning Division, by Steve Conkling, a resident of a neighborhood in the vicinity of Saddleback Meadows. Mr. Conkling commented on the entire EIR document, a portion of which concerned the cultural resources research performed at Saddleback Meadows A response to the comments was prepared and sent to Duane Morita of Urban Vision. This response is reproduced here Mr. Conkling made some 69 separate comments concerning the EIR document. Those comments were enumerated and any concerning cultural resources (only #s 24 and 64) were responded to.

Comment (#24): "Table 4 states that cultural resources will require EMA approval However, this table also indicates that a Section 404 permit will be required for the project. Under the Section 404 permit, cultural resources should be mitigated to be in compliance with Section 106 of the *National Historic Preservation Act*, and fall under the review of the U S Army Corps of Engineers. The current document does not provide cultural resource mitigation management to this level."

Response: The applicability of completing the project in compliance with Section 106 is discussed in the response to Comment #64 below. The statement that "cultural resources should

be mitigated to be in compliance with Section 106" is incorrect. Under Section 106, only the effect of the project on sites determined eligible to be listed in the *National Register of Historic Places* need to be taken into account Sites determined to be ineligible require no additional action.

Comment (#64): "Since the project requires a 404 Permit with the U.S Army Corps of Engineers (Corps), assessment, testing and data recovery for affected archaeological sites must be conducted in compliance with Section 106 of the *National Historic Preservation Act*. Section 106 requires that the sites be tested for their potential eligibility to the *National Register of Historic Places (National Register)*. None of the testing for the EIR was done to these standards."

Response: Throughout the duration of the Saddleback Meadows archaeological study there was no notification that the project required a 404 permit from the Army Corps of Engineers, or that any other Federal involvement in the project was expected. Completing the cultural resources study in compliance with Section 106 of the *National Historic Preservation Act* was not warranted Consequently the project was appropriately completed under the *California Environmental Quality Act* (CEQA).

Comment (#64): "The 12 archaeological resources identified in the EIR have not been adequately tested to determine their significance under CEQA "

Response: Eleven prehistoric archaeological sites and one historic site have been recorded within the boundaries of the Saddleback Meadows project area Three sites (CA-ORA-712, -1256 and -1257) could not be relocated as plotted by previous researchers and no cultural material was found despite a thorough examination of those plotted locations These sites are clearly not important resources

One site (CA-ORA-716) actually is located just outside the project boundaries and will not be affected by the current project This site requires no further action relative to the current study

One site (CA-ORA-1435H) lies within the current project area in proposed open space and will not be affected by grading or construction (this has changed because of the new proposed project of 705 manufactured, single-family residential unit development) This site requires no further action unless changes are made to the current plans (those changes to plans have occurred and additional work is necessary).

Six sites (CA-ORA- 710, -711, -713, -714, -715 and -1255) will be affected by the current project (Maxon 1995) and were formally test excavated Test excavation consisted of surface collection and mapping of all visible surface artifacts, and excavation of a sufficient number of one by one meter square excavation units to characterize the nature of any subsurface deposit These units were excavated using standard archaeological methods Four of these sites (CA-ORA-713, -714, -715 and -1255) are not important since they are highly disturbed and contain no subsurface component. The remaining two sites (CA-ORA-710 and -711) are important since both contain substantial and relatively undisturbed subsurface components.

One site (CA-ORA-1437) was discovered during the current project (Maxon 1995) Time constraints prevented testing this site prior to completion of Draft Environmental Impact Report 561. This site requires testing and evaluation prior to development.

It is clear from the preceding discussion that eleven of the twelve recorded sites within the project boundaries have been adequately addressed. Three are determined to no longer exist, one is actually located outside the current project boundaries, one is located in proposed open space and will not be affected by the project (this has now changed), and six were tested using standard archaeological methods One site discovered during field work will be test excavated and evaluated prior to the start of grading The comment that the sites were not adequately tested under CEQA is unfounded.

Comment (#64): ". .the sites are not adequately evaluated under a straight CEQA review. The office of Historic Preservation, in 1995, began the *California Register of Historical Places*, based on guidelines very similar to those for Section 106. The sites within the project area have not been evaluated for either *Register* "

Response: The Office of Historic Preservation (OHP) created the *California Register of Historical Resources* which has been adopted as *guidelines* by the Historical Resource Commission In addition, current CEQA Statutes (Public Resource Code 21084.1) state that "an historical resource is a resource listed in, or determined eligible to be listed in, the California Register of Historical Resources (Governor's Office of Planning and Research 1996:51) " However, the *California Register* and the criteria for eligibility have not yet passed through the state legislative process and do not have the weight of formal regulations. The legality of requiring evaluation of historical resources for eligibility to be listed in the *California Register*, rather than per the criteria included in Section 21083.2 or Appendix K, is not clear.

Regardless, it is our position that the criteria in Appendix K used for evaluation of the archaeological sites to be affected by the proposed project would be sufficient for evaluating these same sites for their eligibility to be listed in the *California Register*. Criterion d. for eligibility to be listed in the *California Register* states that a historical resource may be listed if "it has yielded or is likely to yield information important in prehistory or history (Office of Historic Preservation 1995:4)." Section III, subsection B of Appendix K of CEQA states that an important archaeological resource is one which "can provide information ... useful in addressing scientifically consequential and reasonable or archaeological research questions (Governor's Office of Planning and Research 1996.275) " It is clear that criterion d for eligibility to be listed in the *California Register* and criterion III, B of Appendix K are similar, and that the evaluation of archaeological sites using section III, B would be nearly identical to an evaluation using criterion d.

As stated previously, the project did not require compliance with Section 106 of the *National Historic Preservation Act.*

Comment #64: "According to the Office of Historic Preservation (1995), properties are evaluated at 45 years of age, not 100 years."

Response: Citing *Instructions For Recording Historical Resources* (Office of Historic Preservation 1995), Mr. Conkling states that "properties are evaluated at 45 years of age, not 100 years." In reality, the reference cited states that sites to be *recorded* should be at least 45 years

old, but is silent on matters of evaluation. All known cultural resources within the project area that are at least 45 years old have been recorded and assigned trinomial designations by the South Central Coastal Archaeological Information Center at the University of California, Los Angeles All sites evaluated for the project are prehistoric sites and far exceed the 45 year criterion. The ranch house (CA-ORA-1435H) is not located in an area to be affected by the project (Maxon 1995) as currently planned, and accordingly, was not formally evaluated (this has now changed).

Comment #64: "Yet, no consultation with the Corps has been initiated, and site eligibility assessments have not been completed."

Response: The archaeological investigations were accomplished under CEQA regulations which do not require consultation with the U.S. Army Corps of Engineers.

Comment #64: "AM 9-8 is inaccurate and illegal, the Coroner makes the determination of the nature of the Human Remains Also, the Heritage Commission contact information is incorrect.

Response: AM 9-8 states that "If human remains of Native American origin are encountered during the project the County Coroner's Office and the Native American Heritage Commission shall be contacted for preservation and protection of the remains." Mr. Conkling is correct. The proper procedure is that the County Coroner's office is notified whenever human remains are encountered. If the Coroner's office determines that the remains are of Native American origin, they have 24 hours in which to notify the Native American Heritage Commission, which in turn will notify the most likely descendant of the deceased Native American.

SUMMARY

Archaeological research accomplished at Saddleback Meadows (Maxon 1995) is as follows: cultural resource reconnaissance relocated CA-ORA-710, -711, -713, -714, -715, -1255 and -1257, previously recorded on the property; CA-ORA-712, -716 and -1256 were not relocated and are considered destroyed; CA-ORA-1435H, the historic ranch house, was formally recorded; CA-ORA-1437 was discovered during the project.

CA-ORA-710, -711, -713, -714, -715 and -1255 were formally test excavated; CA-ORA-1435H did not undergo any testing because it was to be in open space, and was not to be destroyed under the previous 318-unit development; CA-ORA-1437 did not undergo testing because time constraints precluded further work prior to completion of Draft Environmental Impact Report 561. The site was mapped and formally recorded.

RECOMMENDATIONS

CA-ORA-710 and CA-ORA-711 have been determined to be important/significant according to Section 106 of the NHPA and CEQA Although the sites lie in open space, remedial grading of the proposed open space will destroy them. Data recovery excavation of at least 30 one by one meter units at each site must be accomplished. CA-ORA-1437 is the site discovered during the previous project (Maxon 1995); no work has been done as yet. A surface examination and surface collection and a test excavation consisting of approximately ten, one by one meter units must be accomplished at the site to characterize the nature of any subsurface deposit. Additional work may become necessary after evaluation. CA- ORA-1435H has not yet been evaluated Initial work will entail research including archival research and a review of historic aerial photographs. A surface examination and surface collection and a test excavation consisting of a sufficient number of backhoe trenches (approximately 10-20) must then be accomplished at the site. Additional investigation may then become necessary after evaluation All above investigations must be accomplished prior to the commencement of clearing/grading operations.

No determination of importance/significance has been made for CA-ORA-713 and CA-ORA-715. It is recommended that these sites undergo controlled destruction with the aid of a small,

paddlewheel scraper This work can be accomplished after grading is underway. If artifact clusters are discovered additional excavation may be necessary

All other archaeological sites on the property have been deemed not important/significant and no further work, beyond monitoring of grading is necessary

Patrick O. Maxon
Staff Archaeologist

Ronald M Bissell
Principal Investigator

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APPENDIX A
Artifact Catalog

ARTIFACT CATALOG CODE KEY

All artifacts recovered during the Saddleback Meadows project (Maxon 1995) are listed in the following artifact catalog. Entries appear on two successive pages The first page includes the site number and a unique catalog number assigned to each artifact In addition, the first page also depicts the location of the artifact, the subassemblage, class and type of artifact The second page repeats the catalog number and includes information on the artifacts material, modifications, presence or absence of cortex and thermal alteration, dimensions, weight and any comments. In the interest of space, some column headings have been reduced so that only a partial heading is shown Those column headings are explained below:

Cat	= Catalog Number
Top 1	= Top depth of level
Bottom 1	= Bottom depth of level
Dup	= Duplicate: Multi-use tools were assigned the same cat number, but recognized as two separate artifacts
No	= Number of modified edges
Cort	= The presence or absence of cortex
Th	= Thermal modification
P	= after each dimension measurement, the P denotes partial measurement if the artifact had been broken

Attachment D

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-1255	1	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-1255	2	UNIT 1	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-1255	3	UNIT 1	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-1255	4	UNIT 2	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-1255	5	UNIT 2	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-1255	6	UNIT 2	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-1255	7	UNIT 2	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	1	SURFACE	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	2	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	3	SURFACE	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	4	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	5	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	6	SURFACE	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	7	SURFACE	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	8	SURFACE	0	0	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-710	9	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	10	SURFACE	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-710	11	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	12	SURFACE	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-710	13	SURFACE	0	0	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-710	14	SURFACE	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	15	SURFACE	0	0	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-710	16	SURFACE	0	0	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-710	17	SURFACE	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	18	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-710	19	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	20	SURFACE	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	21	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	22	SURFACE	0	0	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-710	23	SURFACE	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	24	SURFACE	0	0	CHIPPED STONE	HAMMERSTONE	MODIFIED
CA-ORA-710	25	SURFACE	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	26	SURFACE	0	0	CHIPPED STONE	HAMMERSTONE	
CA-ORA-710	27	SURFACE COLLECTION #2	0	0	GROUND STONE	METATE	
CA-ORA-710	28	SURFACE COLLECTION #2	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	29	SURFACE COLLECTION #2	0	0	GROUND STONE	METATE	
CA-ORA-710	30	SURFACE COLLECTION #2	0	0	GROUND STONE	METATE	
CA-ORA-710	31	SURFACE COLLECTION #2	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-710	32	SURFACE COLLECTION #2	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-710	33	SURFACE COLLECTION #2	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	34	SURFACE COLLECTION #2	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	35	SURFACE COLLECTION #2	0	0	CHIPPED STONE	HAMMERSTONE	UNMODIFIED
CA-ORA-710	36	SURFACE COLLECTION #2	0	0	CHIPPED STONE	CHOPPER	

Saddleback Meadows Catalog (2 sheets)

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
1	METAVOLCANIC/A	N	1	NIBBLED	Y	N	3 63	N	3.11	N	0 75	N	9 39	2 PIECES OF 1
2	10 YR 6/2	N	0	-										-
3	10 YR 7/2	N	0	-										-
4	10 YR 6/2	N	0	-										-
5	METAVOLCANIC/P-A	N	0	-	N	N	3 41	N	3.14	N	1 55	N	13 86	-
6	10 YR 6/2	N	0	-										-
7	10 YR 6/2	N	0	-										-
1	PORPHYRY	N	0	-	Y	N	5 49	Y	2 77	Y	2 58	Y	49 69	VERY LIGHT POLISH
2	GRANITIC	N	2	BATTERED	N	N	15		8.04	Y	6.12		1333 9	-
3	METAVOLCANIC/P-A	N	0	-	Y	N	9 68	Y	8 76	Y	4.89		441 7	-
4	METAVOLCANIC/P-A	N	0	-	N	Y	9 06		5 82	Y	4 59		503 1	LIGHT WEAR
5	PORPHYRY	N	0	-	N	N	12 9		9 13		7.94		1447.7	COLOR DIFFERENCE ON ONE FACE
6	METAVOLCANIC/P-A	N	0	-	Y	N	5 66	Y	5.27	Y	3 4	Y	129 12	-
7	PORPHYRY	N	0	-	Y	N	7 23	Y	5 49	Y	1.97	Y	91 09	MODERATE POLISH
8	METAVOLCANIC/P-A	N	2	BATTERED	Y	N	9 17	Y	7 72	Y	6 53	Y	526 6	-
9	GRANITIC	N	1	-	Y	N	9 08		7.27		3.96		386.5	*RED MARKS, ON SURFACE
10	GRANITIC	N	1	BATTERED	N	N	8 79	Y	8 78		5 91		675 3	MODERATE POLISH
11	GRANITIC	N	0	BATTERED	N	N	11 7		9 5		6 42		1048 8	FAIRLY HIGH POLISH
12	PORPHYRY	N	0	-	Y	N	13		8 92		7 07		1415 1	MODERATE POLISH
13	QUARTZITE	N	0	-	Y	N	6 24	Y	5.58	Y	5 93	Y	296 5	-
14	PORPHYRY	N	0	-	N	N	13 08		7.4		4 6		731 3	*RED MARKS - MODERATE POLISH
15	METAVOLCANIC/A	N	0	-	N	N	6 85	N	5 04	N	2.73	N	114 93	-
16	METAVOLCANIC/P-A	N	4	RETOUCHED	Y	N	6 83	N	6 58	N	1 95	N	127 47	-
17	PORPHYRY	N	0	-	Y	Y	9.8	Y	8.81	Y	5 27	Y	592 7	MODERATE POLISH
18	PORPHYRY	N	0	-	Y	N	6 09	Y	3 5	Y	5 46	N	141.76	MODERATE POLISH
19	PORPHYRY	N	0	-	Y	N	11 42	N	9.19	N	5 82	N	874.1	*RED MARKS, MODERATE POLISH
20	QUARTZ	N	0	-	N	N	4 39	N	2 46	N	1 6	N	16 05	-
21	PORPHYRY	N	0	-	Y	Y	150	Y	9 8	Y	6 09	N	1166 8	*RED MARKS, MODERATE POLISH
22	PORPHYRY	N	0	-	Y	Y	9.43	Y	7 33	Y	5 09	N	415.1	LIGHT POLISH
23	QUARTZITE	N	0	-	Y	N	7 83	N	5.09	N	1 48	N	66 65	-
24	METAVOLCANIC/P-A	N	2	RETOUCHED	Y	N	9 91	N	8 31	N	4 05	N	443 6	*RED MARKS
25	GRANITIC	N	0	-	Y	N	10 11	Y	6.9	Y	4 89	N	453 7	MODERATE POLISH
26	QUARTZITE	N	2	-	Y	Y	14 67	Y	11 15	Y	10 55	Y	1971 1	-
27	QUARTZITE	N	0	-	N	N	13 87	Y	10.26	Y	4 64	Y	966 5	TWO SPOTS OF POLISH
28	PORPHYRY	N	0	-	N	N	13 63	N	7 41	N	5 01	N	840 3	-
29	GRANITIC	N	0	-	N	N	11 03	Y	7.25	Y	8 55	Y	1035 3	-
30	GRANITIC	N	0	-	Y	N	11 3	Y	6.51	Y	10 97	Y	1285 4	-
31	PORPHYRY	N	0	-	Y	N	10 1	Y	9.82	Y	4 58	N	479 2	-
32	PORPHYRY	N	0	-	N	N	9.45	N	6 83	N	6.05	N	539.2	-
33	CHERT	N	1	NIBBLED	N	N	3.59	N	1 8	N	1.03	N	7 62	-
34	CHERT	N	0	-	Y	N	4 2	N	3.17	N	2 05	N	28 12	SEVERAL FLAKE SCARS
35	METAVOLCANIC/P-A	N	0	-	N	N	8 33	N	7.5	N	4 44	N	440	-
36	QUARTZITE	N	0	-	N	N	7.89	N	6.69	N	4 07	N	255 3	-

Attachment D

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-710	37	SURFACE COLLECTION #2	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-710	38	SURFACE COLLECTION #2	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	39	SURFACE COLLECTION #2	0	0	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-710	40	SURFACE COLLECTION #2	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	41	SURFACE COLLECTION #2	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	42	SURFACE COLLECTION #2	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-710	43	SURFACE COLLECTION #2	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	44	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-710	45	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	46	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	47	SURFACE COLLECTION #3	0	0	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-710	48	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	49	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-710	50	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-710	51	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CHOPPER	MULTIDIRECTIONAL
CA-ORA-710	52	SURFACE COLLECTION #3	0	0	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-710	53	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-710	54	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-710	55	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	56	SURFACE COLLECTION #3	0	0	CHIPPED STONE	SCRAPER	MODIFIED
CA-ORA-710	57	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	SPENT
CA-ORA-710	58	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	59	SURFACE COLLECTION #3	0	0	CHIPPED STONE	SCRAPER	UNMODIFIED
CA-ORA-710	60	SURFACE COLLECTION #3	0	0	CHIPPED STONE	HAMMERSTONE	
CA-ORA-710	61	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-710	62	SURFACE COLLECTION #3	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-710	63	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	64	SURFACE COLLECTION #3	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	64	SURFACE COLLECTION #3	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	65	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	66	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	67	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	68	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	69	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	70	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	71	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	72	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	74	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	75	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	76	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	77	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	78	SURFACE COLLECTION #3	0	0	CHIPPED STONE	CORE	SPENT
CA-ORA-710	79	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE

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Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
37	CHERT	N	0	-	Y	N	4.42	N	3 18	N	2 2	N	33 61	-
38	METAVOLCANIC/P-A	N	0	-	N	N	2.19	N	1.71	N	0 41	N	1 74	-
39	QUARTZITE	N	0	-	N	N	8.63	N	7.78	N	3 05	N	241.8	-
40	CHERT	N	0	-	Y	N	3 1	N	1 07	N	8.53	N	3 07	SEVERAL FLAKE SCARS
41	CHERT	N	0	-	Y	N	1 76	N	1 45	N	0 42	N	1.58	-
42	METAVOLCANIC/P-A	N	0	-	N	N	5 97	N	3 6	N	2 01	N	48 68	-
43	CHERT	N	0	-	N	N	2.64	N	1 16	N	0.62	N	2.09	1 LARGE FLAKE SCAR, 2 PIECES OF 1
44	QUARTZITE	N	0	-	N	N	7.68	N	5 67	N	4 98	N	200 82	-
45	CHERT	N	0	-	Y	N	3 88	N	3 43	N	2 68	N	26.04	-
46	CHERT	N	0	-	N	N	2 83	N	2 27	N	1 65	N	9 9	-
47	GRANITIC	N	0	-	N	N	6 69	N	8 78	N	3.67	N	352.5	SHAPED, HIT BY DISCER
48	METAVOLCANIC/P-A	N	0	-	Y	N	7.62	N	3 99	N	2 01	N	60 38	-
49	METASEDIMENTARY	N	0	-	N	N	5.88	N	5 76	N	3.65	N	101 19	-
50	METASEDIMENTARY	N	0	-	Y	N	12 01	N	8 42	N	6 26	N	634 3	-
51	METASEDIMENTARY	N	0	-	Y	N	12 62	N	10.59	N	5 51	N	694 2	-
52	PORPHYRY	N	0	-	Y	N	7 05	Y	8.04	Y	5 48	Y	439 5	-
53	METAVOLCANIC/P-A	N	0	-	Y	N	6.9	N	5 08	N	3 32	N	87 11	-
54	METAVOLCANIC/P-A	N	0	-	Y	N	9 17	N	6 07	N	2 97	N	161 32	-
55	CHERT	N	0	-	Y	N	2 31	N	1 48	N	0.7	N	1 91	-
56	CHERT	N	2	NIBBLED	Y	N	5.53	N	2 94	N	1.3	N	18.82	-
57	CHERT	N	0	-	N	N	4 6	N	3.53	N	2 41	N	27 05	MANY FLAKE SCARS
58	METAVOLCANIC/P-A	N	0	-	N	N	4.41	N	3 79	N	1 34	N	15 86	-
59	METAVOLCANIC/P-A	N	1	WORN	Y	N	9 58	N	6.3	N	3 39	N	239 5	-
60	METASEDIMENTARY	N	0	-	N	N	7 87	N	6.4	N	4 27	N	238 2	-
61	METAVOLCANIC/P-A	N	0	-	Y	N	8 74	N	5 45	N	3 59	N	163 02	-
62	GRANITIC	N	0	-	N	N	10 01	N	9 59	N	6 15	N	835.9	-
63	METAVOLCANIC/P-A	N	0	-	Y	N	5.06	N	3.27	N	1 68	N	22 91	-
64	GRANITIC	N	0	-	N	N	12 36	Y	12 09	N	6 43	Y	989 4	ONE OF 2 PIECES
64	GRANITIC	N	0	-	N	N	12 36	Y	12 09	N	6 43	Y	989 4	ONE OF 2 PIECES
65	CHERT	N	1	NIBBLED	N	N	2 53	N	1.88	N	0 69	N	3 26	-
66	METASEDIMENTARY	N	0	-	N	N	3 75	N	2 52	N	1 14	N	8.3	-
67	CHERT	N	0	-	N	N	4 27	N	3 51	N	1.37	N	16 68	-
68	QUARTZITE	N	0	-	N	N	4.35	N	2 72	N	1 23	N	12 16	-
69	METAVOLCANIC/P-A	N	0	-	N	N	5 05	N	3.38	N	1 25	N	23 93	-
70	CHERT	N	0	-	N	N	2 34	N	2 13	N	0 42	N	2 17	-
71	METAVOLCANIC/P-A	N	0	-	N	N	2 59	N	2 23	N	0 8	N	4.58	-
72	CHERT	N	1	NIBBLED	N	N	1.8	N	1 68	N	0.61	N	1 91	-
74	CHERT	N	0	-	N	N	2.37	N	2.17	N	0 59	N	2 76	-
75	CHERT	N	1	CHIPPED	N	N	2 97	N	2.07	N	1 19	N	6	-
76	CHERT	N	0	-	Y	N	2.78	N	1 69	N	1.36	N	4 68	-
77	METAVOLCANIC/P-A	N	0	-	N	N	2 42	N	1 65	N	0 99	N	3 34	-
78	CHERT	N	0	-	N	N	4 08	N	2 82	N	1.94	N	15 72	HAS LARGE ROUND QUARTZ INCLUSION
79	METAVOLCANIC/P-A	N	0	-	N	N	6 18	N	3 36	N	1 28	N	24 65	-

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-710	80	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	81	SURFACE COLLECTION #3	0	0	CHIPPED STONE	SCRAPER	MODIFIED
CA-ORA-710	82	SURFACE COLLECTION #3	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	83	UNIT 1	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	84	UNIT 1	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	85	UNIT 1	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	86	UNIT 1	0	10	CHIPPED STONE	CORE	SPENT
CA-ORA-710	87	UNIT 1	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-710	88	UNIT 1	10	20	CHIPPED STONE	CORE	SPENT
CA-ORA-710	89	UNIT 1	10	20	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	90	UNIT 1	10	20	CHIPPED STONE	CORE	
CA-ORA-710	91	UNIT 1	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-710	92	UNIT 1	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	93	UNIT 1	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-710	94	UNIT 1	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-710	95	UNIT 1 - FEATURE 1	20	30	CHIPPED STONE	CORE	
CA-ORA-710	96	UNIT 1 - FEATURE 1	20	30	GROUND STONE	METATE	SLAB
CA-ORA-710	97	UNIT 1 - FEATURE 1	20	30	GROUND STONE	METATE	SLAB
CA-ORA-710	98	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	99	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	100	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	101	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	102	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	103	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	104	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	105	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	106	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	107	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	108	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	109	UNIT 2	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-710	110	UNIT 2 - FEATURE	10	20	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	111	UNIT 2 - FEATURE	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-710	112	UNIT 2 - FEATURE	10	20	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-710	113	UNIT 2 - FEATURE	10	20	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-710	114	UNIT 2	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	115	UNIT 2	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	116	UNIT 2	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-710	117	UNIT 2 - FEATURE 2	30	40	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-710	118	UNIT 2 - FEATURE 2	30	40	SAMPLE	SOIL	FROM UNDER CATALOG #117
CA-ORA-710	119	UNIT 2 - FEATURE 2	30	40	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-710	121	UNIT 2 - FEATURE 2	30	40	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	122	UNIT 2 - FEATURE 2	30	40	GROUND STONE	METATE	SLAB
CA-ORA-710	123	UNIT 2 - FEATURE 2	30	40	SAMPLE	SOIL	FROM UNDER CATALOG #122

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
80	CHERT	N	1	NIBBLED	Y	N	3 18	N	1.88	N	0 73	N	3 82	-
81	METAVOLCANIC/P-A	N	0	-	Y	N	8 64	N	4 65	N	3.05	N	105.69	-
82	METASEDIMENTARY	N	0	-	N	N	4.73	N	3 25	N	1.91	N	30 58	-
83	CHERT	N	0	-	N	N	1 85	N	1 19	N	0.29	N	0 64	-
84	CHERT	N	0	-	N	N	2 22	N	1 71	N	2 13	N	4 55	FITS WITH #86
85	METASEDIMENTARY	N	0	-	N	N	8 1	N	6 32	N	3 52	N	178 66	-
86	CHERT	N	0	-	N	N	3.34	N	2.45	N	1 76	N	16 51	FITS WITH # 84
87	10 YR 4/4	N	0	-	N									-
88	CHERT	N	0	-	Y	N	1 98	N	1.94	N	1.73	N	10.21	-
89	CHERT	N	0	-	Y	N	2 04	N	1 39	N	0 52	N	1 27	-
90	JASPER	N	0	-	N	N	6 53	N	5 26	N	3 79	N	132 65	-
91	10 YR 4/3	N	0	-										-
92	10 YR 4/3	N	0	-										-
93	10 YR 4/6	N	0	-										-
94	10 YR 6/6	N	0	-										-
95	METAVOLCANIC/P-A	N	0	-	N	N	7.12	N	5 62	N	4.26	N	194.6	BOTTOM DEPTH = 31 CM
96	SANDSTONE	N	0	-	N	N	25 5	N	25	N	5 7	N	4000	BOTTOM DEPTH = 33 CM
97	SANDSTONE	N	0	-	N	N	34 5	N	24	N	4 25	N	4700	BOTTOM DEPTH = 33 CM
98	CHERT	N	0	-	N	N	3.55	N	2 19	N	1.04	N	5 96	-
99	CHERT	N	1	NIBBLED	N	N	3 49	N	3 09	N	1.11	N	8.77	-
100	CHERT	N	0	-	N	N	1.78	N	0.97	N	0 41	N	0.75	-
101	CHERT	N	0	-	N	N	1.62	N	0 79	N	0 31	N	0 37	-
102	CHERT	N	0	-	N	N	0 66	N	0 54	N	0 12	N	0 04	-
103	CHERT	N	0	-	N	N	0 83	N	0 43	N	0 94	N	0 03	-
104	JASPER	N	0	-	N	N	1 25	N	1 15	N	0.2	N	0 3	-
105	CHERT	N	0	-	N	N	1 06	N	1.06	N	0.09	N	0 12	-
106	CHERT	N	0	-	N	N	1.19	N	0 6	N	0.16	N	0 13	-
107	METAVOLCANIC/P-A	N	0	-	N	N	0 64	N	0.71	N	0.24	N	0 13	-
108	METAVOLCANIC/P-A	N	0	-	N	N	0 72	N	0 61	N	0.14	N	0.06	-
109	10 YR 4/3	N	0	-										-
110	PORPHYRY	N	0	-	N	Y	6 09	Y	5 32	Y	3 03	Y	99.86	-
111	10 YR 4/3	N	0	-										-
112	METAVOLCANIC/P-A	N	0	-	Y	N	6 98	N	6.51	N	3.69	N	200 11	BOTTOM DEPTH = 19 CM
113	METAVOLCANIC/P-A	N	1	WORN	N	N	8 69	N	5 57	N	3 5	N	146 43	BOTTOM DEPTH = 16 CM
114	CHERT	N	0	-	Y	N	2 1	N	1 83	N	0 75	N	2 28	-
115	10 YR 4/4	N	0	-										-
116	10 YR 4/4	N	0	-										-
117	GRANITIC	N	2	POLISH	Y	N	10 4	Y	9 07	N	5 26	N	627 5	BOTTOM DEPTH = 48 CM
118		N	0	-										-
119	GRANITIC	N	0	-	N	Y	7 2	Y	5 85	N	3 67	N	179 73	BOTTOM DEPTH = 44 CM
121	GRANITIC	N	1	POLISH	Y	Y	6 34	Y	4 69	Y	4 33	Y	91 12	BOTTOM DEPTH = 46 CM
122	GRANITIC	N	1	POLISH	Y	Y	7 99	Y	5 81	Y	4 78	Y	238.1	BOTTOM DEPTH = 41 CM
123		N	0	-										-

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-710	124	UNIT 2 - FEATURE 2	30	40	CHIPPED STONE	CHOPPER	
CA-ORA-710	125	UNIT 2	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-710	126	UNIT 3	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	127	UNIT 3	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	128	UNIT 3	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	129	UNIT 3	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-710	136	UNIT 3 - FEATURE 1	20	30	GROUND STONE	/MANO	BIFACIAL, INCOMPLETE
CA-ORA-710	137	UNIT 4	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	138	UNIT 4	0	10	CHIPPED STONE	SOIL	LEVEL
CA-ORA-710	139	UNIT 4	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-710	140	UNIT 4	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	141	UNIT 4	30	40	SAMPLE	SOIL	
CA-ORA-710	142	UNIT 4	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-710	143	UNIT 4 - FEATURE 1	40	50	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	144	UNIT 4	50	60	SAMPLE	SOIL	LEVEL
CA-ORA-710	145	UNIT 5	10	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	146	UNIT 5	10	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	147	UNIT 5	10	10	SAMPLE	SOIL	LEVEL
CA-ORA-710	148	UNIT 5	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-710	149	UNIT 5	20	30	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	150	UNIT 5	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	151	UNIT 5	30	40	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	152	UNIT 5	30	40	SAMPLE	CARBON	
CA-ORA-710	153	UNIT 5	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-710	154	UNIT 5	40	50	FAUNAL	MAMMAL, LARGE	
CA-ORA-710	155	UNIT 5	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-710	156	UNIT 6	0	10	CHIPPED STONE	HAMMERSTONE	
CA-ORA-710	157	UNIT 6	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-710	158	UNIT 6	10	20	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	159	UNIT 6	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-710	160	UNIT 6	20	30	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-710	161	UNIT 6	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	162	UNIT 6	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-710	163	UNIT 7	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	164	UNIT 7	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-710	165	UNIT 7	0	10	CHIPPED STONE	HAMMERSTONE	
CA-ORA-710	166	UNIT 7	10	20	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-710	167	UNIT 7	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-710	168	UNIT 7	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-710	169	UNIT 7	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	170	UNIT 7	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-710	171	UNIT 7	30	40	CHIPPED STONE	HAMMERSTONE	
CA-ORA-710	172	UNIT 7	40	50	CHIPPED STONE	CHOPPER	

Saddleback Meadows Catalog (2 sheets)

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
124	QUARTZITE	N	1	BATTERED	N	N	9 72	N	5 04	N	3 56	N	182 7	-
125	10 YR 3/4	N	0	-										-
126	CHERT	N	0	-			2 74		1 39		0.84		3 01	-
127	CHERT	N	0	-			0 96		0 96		0 76		0 85	-
128	METAVOLCANIC/P-A	N	0	-			3 27		2.11		0.52		3 59	-
129	10 YR 4/3	N	0	-										-
136	GRANITIC	N	0	-			14 8		9 37		5.52		1135.3	BOTTOM DEPTH = 30 CM
137	CHERT	N	2	FLAKED	Y		1.96				2.65		3.26	-
138	10 YR 5/3	N	0	-										-
139	10 YR 5/3	N	0	-										-
140	10 YR 3/3	N	0	-										-
141	10 YR 3/3	N	0	-										-
142	10 YR 4/4	N	0	-										-
143	GRANITIC	N	0	-	Y		10 52		4.63		3 58		238 1	-
144	10 YR 4/4	N	0	-										-
145	JASPER	N	0	-			1 35		0 94		0 37		0 44	-
146	QUARTZITE	N	0	-			2 84		2 07		0.99		6.07	-
147	10 YR 4/3	N	0	-										-
148	10 YR 4/3	N	0	-										-
149	CHERT	N	0	-			1.36		1.13		0.45		0 55	-
150	10 YR 4/3	N	0	-										-
151	CHERT	N	0	-			1.26		1 4		0 56		1.17	-
152	CARBON	N	0	-							0 05			-
153	10 YR 3/4	N	0	-										-
154	BONE	N	0	-									19.01	10 PIECES
155	10 YR 5/4	N	0	-										-
156	QUARTZITE	N	0	-			6 43		5 32		4 05		207.4	-
157	10 YR 4/3	N	0	-										-
158	GRANITIC	N	0	-	Y	N	4 76	Y	3 83	Y	3 47	Y	92 6	-
159	10 YR 3/3	N	0	-										-
160	GRANITIC	N	0	-	N	N							136 51	UNABLE TO MEASURE - IN 14 PIECES
161	10 YR 3/3	N	0	-										-
162	10 YR 4/6	N	0	-										-
163	CHERT	N	0	-	N	N	1.98	N	1 27	N	0 9	N	1 56	-
164	10 YR 4/3	N	0	-										-
165	QUARTZITE	N	0	-	N	N	7 98	N	6 33	N	4 44	N	310 7	-
166	METASEDIMENTARY	N	0	-	N	N	5 73	N	4.24	N	1 61	N	34 97	-
167	10 YR 4/4	N	0	-										-
168	CHERT	N	3	WORN NIBBLED			2 64		2 53		0 97		7 45	NUMBER OF MODIFIED EDGES IS "3-4"
169	10 YR 4/4	N	0	-										-
170	10 YR 4/4	N	0	-										-
171	METASEDIMENTARY	N	0	-			7.91		6 51		4 44		288 6	BOTTOM DEPTH = 38 CM
172	METAVOLCANIC/P-A	N	0	-			7.19		6 18		3 46		153 48	-

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-710	173	UNIT 7	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-710	174	UNIT 7	40	50	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-710	175	UNIT 7	50	60	SAMPLE	SOIL	LEVEL
CA-ORA-710	176	UNIT 7	50	60	GROUND STONE	HAMMERSTONE	
CA-ORA-710	177	UNIT 7	50	60	CHIPPED STONE	SCRAPER	MODIFIED
CA-ORA-710	178	UNIT 8	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-710	179	UNIT 8	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-710	180	UNIT 8	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-710	181	UNIT 8	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	1	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	2	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	3	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	4	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	5	SURFACE COLLECTION	0	0	CHIPPED STONE	UNIFACE	
CA-ORA-711	6	SURFACE COLLECTION	0	0	CHIPPED STONE	HAMMERSTONE	
CA-ORA-711	7	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	8	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-711	9	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	10	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-711	11	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	12	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-711	12	SURFACE COLLECTION	0	0	CHIPPED STONE	SCRAPER	PLANE
CA-ORA-711	13	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	14	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	15	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-711	16	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	17	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	18	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	19	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	20	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	21	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	22	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	23	SURFACE COLLECTION	0	0	CHIPPED STONE	HAMMERSTONE	
CA-ORA-711	24	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	25	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	BIFACE	
CA-ORA-711	26	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	27	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-711	28	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	29	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	30	NO PROVENIENCE	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	36	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	37	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	38	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
173	10 YR 3/4	N	0	-									-	
174	METAVOLCANIC/P-A	N	0	-	Y		8.27		6 35		3 25		206 3	BOTTOM DEPTH = 47 CM
175	10 YR 3/4	N	0	-									-	
176	GRANITIC	N	0	-			8 08		6.05		5 77		315.5	-
177	METAVOLCANIC/P-A	N	1	FLAKED	Y		10 27		6 62		3 69		311 8	-
178	10 YR 4/3	N	0	-									-	
179	10 YR 4/4	N	0	-									-	
180	10 YR 3/4	N	0	-									-	
181	10 YR 3/4	N	0	-									-	
1	GRANITIC	N	1	BATTERED	N	N	12 31	Y	10 05	N	5.26	N	1104 6	-
2	GRANITIC	N	1	BATTERED/GROU	N	Y	13 31	Y	8 67	Y	4 77	N	714.5	-
3	PORPHYRY	N	3	BATTERED	N	N	11 42	N	8.33	N	5 75	N	772 5	-
4	CHERT	N	0	-	N	N	1 64	N	0.86	N	0 38	N	0 69	-
5	METAVOLCANIC/P-A	N	2	EDGEWEAR	N	N	4 89	N	3 32	N	1 03	N	19 89	-
6	METAVOLCANIC/P-A	N	3	BATTERED	N	Y	8 09	N	6 91	N	5 27	N	349.8	-
7	METAVOLCANIC/P-A	N	0	-	N	N	3.27	N	1.75	N	1.11	N	5 58	-
8	CHERT	N	0	-	Y	N	4 59	N	2.93	N	1.99	N	21 44	-
9	CHERT	N	1	EDGEWEAR	N	N	7 61	N	3 44	N	2 09	N	39 5	-
10	METAVOLCANIC/P-A	N	0	-	N	N	9 72	Y	7 41	Y	6.07	Y	520 1	-
11	METAVOLCANIC/P-A	N	2	EDGE WEAR	N	N	6 7	N	4.95	N	1.41	N	42 58	-
12	PORPHYRY	N	0		N	N	9.72	N	9 13	N	5.75	N	489 5	-
12	PORPHYRY	Y	1	EDGE WEAR	N	N	9.72	N	9 13	N	5 75	N	489 5	POSSIBLE BATTERING ON 1 EDGE
13	GRANITIC	N	1	-	N	Y	12 09	N	9 67	Y	5 14	Y	769 4	-
14	QUARTZITE	N	0	-	N	N	3 62	N	2.13	N	1 43	N	7 49	-
15	SANDSTONE	N	0	-	N	Y	9 06	Y	8 46	Y	5 76	Y	410 5	POSSIBLE BATTERING
16	METAVOLCANIC/P-A	N	0	-	N	N	2 23	N	1 49	N	0 71	Y	1 81	-
17	CHERT	N	0	-	N	N	1 78	N	1 28	N	1 31	N	3 02	-
18	GRANITIC	N	1	BATTERED	N	Y	13 57	N	9.6	Y	8 68	Y	1491 5	POSSIBLE BATTERING
19	CHERT	N	0	-	N	N	5 65	N	4 16	N	1 46	N	34.87	-
20	SANDSTONE	N	0	-	N	N	11 83	N	10 81	N	6 89	N	1264 6	-
21	CHERT	N	1	SCRAPING	N	N	3 2	N	2 63	N	0.71	N	4.93	-
22	CHERT	N	0	-	N	N	1 63	N	1 08	N	0 37	N	0 59	-
23	METAVOLCANIC/P-A	N	4	BATTERED	N	N	10 89	N	10 53	N	8 45	N	1264 2	-
24	GRANITIC	N	0	-	N	N	4.37	N	8.56	N	4 97	N	230 3	-
25	CHERT	N	1	EDGE WEAR	N	N	3 45	N	2 11	N	0 75	N	6 94	-
26	GRANITIC	N	0	-	N	N	12 73	Y	9 93	N	5 05	N	859 4	-
27	GRANITIC	N	0	-	N	N	5 59	Y	7 47	Y	5 61	Y	243 4	-
28	GRANITIC	N	1	BATTERED	N	N	9.95	N	6.69	N	6 12	N	727 2	-
29	CHERT	N	2	WORN	N	N	3 99	N	2 72	N	1 22	N	11 39	-
30	CHERT	N	0	-	N	N	3 71	N	2 35	N	1 48	N	14 25	-
36	METAVOLCANIC/P-A	N	0	-	N	N	5 62	N	4 15	N	1.66	N	34 76	
37	METAVOLCANIC/P-A	N	0	-	N	N	3 22	N	2.18	N	0 7	N	3.96	IN 3 PIECES
38	CHERT	N	0	-	N	N	2 24	N	1 63	N	0 8	N	2 59	-

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-711	39	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	40	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	41	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	42	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	43	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	44	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	45	UNIT 2	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	47	UNIT 2	10	20	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	48	UNIT 2	10	20	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	49	UNIT 2	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	50	UNIT 2	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	51	UNIT 2	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	52	UNIT 2	20	30	CHIPPED STONE	HAMMERSTONE	MODIFIED
CA-ORA-711	53	UNIT 2	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	54	UNIT 2	20	30	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	55	UNIT 2	20	30	GROUND STONE	MANO	INCOMPLETE
CA-ORA-711	56	UNIT 2	20	30	GROUND STONE	MANO	INCOMPLETE
CA-ORA-711	57	UNIT 2	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	58	UNIT 2	20	30	GROUND STONE		INCOMPLETE
CA-ORA-711	59	UNIT 2	20	30	CHIPPED STONE	HAMMERSTONE	MODIFIED
CA-ORA-711	60	UNIT 2	20	30	GROUND STONE	METATE	
CA-ORA-711	61	UNIT 2	20	30	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	62	UNIT 2	20	30	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	63	UNIT 2	20	30	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-711	64	UNIT 2	20	30	GROUND STONE	MANO	INCOMPLETE
CA-ORA-711	65	UNIT 2	30	40	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	66	UNIT 2	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	67	UNIT 2	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-711	68	UNIT 2	50	60	SAMPLE	SOIL	LEVEL
CA-ORA-711	71	UNIT 3	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	72	UNIT 3	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	74	UNIT 3	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	75	UNIT 3	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	77	UNIT 3	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	78	UNIT 3	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	79	UNIT 3	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	80	UNIT 3	30	40	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	81	UNIT 3	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	82	UNIT 3	40	50	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	83	UNIT 3	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	84	UNIT 3	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	85	UNIT 3	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	86	UNIT 3	40	50	GROUND STONE	HAMMERSTONE	UNMODIFIED

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
39	CHERT	N	0	-	N	N	1 81	Y	1.65	N	0 64	N	1.5	IN 2 PIECES
40	CHERT	N	0	-	N	Y	1.97	N	1.31	N	1.14	N	2.37	-
41	CHERT	N	2	WORN	N	N	1 74	Y	1 77	N	0 41	N	1 4	-
42	CHERT	N	0	-	N	N	0 92	N	0 74	N	0 22	N	0.16	-
43	CHERT	N	0	-	N	N	1 65	Y	1 45	Y	0 49	Y	0 82	-
44	CHERT	N	0	-	N	N	1 68	Y	0.64	Y	0 39	Y	0 33	-
45	10 YR 5/3	N	0	-									/	-
47	METAVOLCANIC/P-A	N	0	-	N	N	1.75	Y	2 5	N	0.81	N	2 68	-
48	CHERT	N	2	WORN	Y	N	3 44	N	3.29	N	0.91	N	9.8	-
49	10 YR 4/3	N	0	-										BROWN/DARK BROWN
50	CHERT	N	0	-	N	N	2 54	N	2 33	N	0.97	N	4 92	FEATURE 1 SCREENED MATERIAL
51	QUARTZITE	N	0	-	N	N	2 58	N	2 28	N	1 05	N	4	FEATURE 1 SCREENED MATERIAL
52	METAVOLCANIC/P-A	N	4	BATTERED	N	N	7 97	N	5 79	N	3 07	Y	154 23	FEATURE 1 SCREENED MATERIAL
53	METAVOLCANIC/P-A	N	0	-	N	N	4 8	N	3 91	N	3 52	N	54.72	FEATURE 1 SCREENED MATERIAL
54	GRANITIC	N	0	-	N	Y	6 17	Y	5 26	Y	3 85	Y	130.91	FEATURE 1 SCREENED MATERIAL
55	PORPHYRY	N	0	-	N	Y	8 45	Y	5 54	Y	2 64	Y	140	ITEM TOO FRACTURED TO DETERMINE BIFACIAL
58	SANDSTONE	N	0	-	N	Y	6.62	Y	4 4	Y	4.01	Y	112 72	ITEM TOO FRACTURED TO DETERMINE BIFACIAL
57	10 YR 4/3	N	0	-										BROWN/DARK BROWN
58	GRANITIC	N	0	-	N	N	8 21	Y	5 8	Y	3 28	Y	148 19	ITEM 1
59	QUARTZITE	N	8	BATTERED	Y	N	5 58	N	5 2	N	4 73	N	127 92	ITEM 2
60	GRANITIC	N	2	WORN	Y	Y		Y		Y		Y	465 3	ITEM 3, 8 FRAGMENTS, TOO FRAGMENTED TO ME
61	GRANITIC	N	0	-	Y	Y	9 24	Y	6 83	Y	4 55	Y	337 5	ITEM 4
62	GRANITIC	N	0	-	Y	N	10.7	Y	7.08	N	5 12	N	534 8	ITEM 5
63	GRANITIC	N	0	-	Y	Y	8.69	Y	4 67	Y	4 16	Y	217 1	ITEM 6
64	GRANITIC	N	0	-	Y	Y	8.96	N	7 49	Y	5 99	Y	424.5	ITEM 7
65	QUARTZITE	N	0	-	N	N	1.53	N	0 61	N	0 33	N	0 3	-
66	10 YR 4/3	N	0	-										-
67	10 YR 4/3	N	0	-										-
68	10 YR 4/3	N	0	-										-
71	METAVOLCANIC/P-A	N	1	WORN	Y	N	5.21	N	3 08	N	1 3	N	18 93	-
72	10 YR 4/3	N	0	-										BROWN/DARK BROWN
74	METAVOLCANIC/A	N	0	-	N	N	0 69	N	0 34	N	0.14	N	0 03	-
75	METAVOLCANIC/P-A	N	0	-	N	N	1.29	N	0 77	N	0.41	N	0 39	-
77	METAVOLCANIC/P-A	N	0	-	N	N	1 35	N	0 59	N	0 15	N	0 12	-
78	10 YR 4/3	N	0	-										BROWN/DARK BROWN
79	10 YR 3/3	N	0	-										DARK BROWN
80	CHERT	N	0	-	N	N	0 86	Y	0 47	N	0.18	N	0 07	-
81	10 YR 4/4	N	0	-										DARK YELLOWISH BROWN
82	PORPHYRY	N	0	-	Y	N	6 07	N	4 71	Y	1 97	N	46 01	-
83	METAVOLCANIC/P-A	N	0	-	N	N	2 23	N	1.31	N	0 93	N	2 28	-
84	CHERT	N	0	-	Y	N	1.55	N	0 58	N	0 51	N	0 53	-
85	CHERT	N	0	-	N	N	1.03	N	0 47	N	0 23	N	0.1	-
86	QUARTZITE	N	1	BATTERED	N	N	0 54	N	2 93	N	2 13	N	46 92	NO FEATURE NUMBER

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-711	87	UNIT 3	40	50	GROUND STONE	MANO	INCOMPLETE
CA-ORA-711	88	UNIT 3	40	50	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	89	UNIT 3	40	50	SAMPLE	SOIL	ARTIFACT
CA-ORA-711	90	UNIT 3	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-711	91	UNIT 3	50	60	SAMPLE	SOIL	LEVEL
CA-ORA-711	92	UNIT 3	60	70	SAMPLE	SOIL	LEVEL
CA-ORA-711	93	UNIT 4	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	94	UNIT 4	0	10	GROUND STONE	HAMMERSTONE	UNMODIFIED
CA-ORA-711	94	UNIT 4	0	10	GROUND STONE	MANO	UNIFACIAL
CA-ORA-711	96	UNIT 4	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	97	UNIT 4	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	100	UNIT 4	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	101	UNIT 4	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	103	UNIT 4	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	104	UNIT 4	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	105	UNIT 4	30	40	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	106	UNIT 4	30	40	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	107	UNIT 4	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	108	UNIT 4	40	50	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-711	108	UNIT 4	40	50	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-711	109	UNIT 4	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-711	110	UNIT 5	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	111	UNIT 5	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	112	UNIT 5	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	113	UNIT 5	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	114	UNIT 5	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-711	116	UNIT 6	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	117	UNIT 6	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	118	UNIT 6	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	119	UNIT 6	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	121	UNIT 7	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	122	UNIT 7	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	123	UNIT 7	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	124	UNIT 7	20	30	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	125	UNIT 7	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	126	UNIT 7	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	128	UNIT 8	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	129	UNIT 8	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	130	UNIT 8	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	131	UNIT 8	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	132	UNIT 8	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	133	UNIT 9	0	10	CHIPPED STONE	CORE	SPENT
CA-ORA-711	134	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
87	QUARTZITE	N	0	-	N	Y	8 15	Y	6 71	Y	3 06	Y	163.26	TOO FRAGMENTED TO DETERMINE WEAR
88	GRANITIC	N	2	BATTERED	N	N	12 94	N	10.13	N	4 47	N	837.1	NO FEATURE NUMBER
89		N	0	-										SOIL SAMPLE FROM UNDER MANO
90	10 YR 4/4	N	0	-										DARK YELLOWISH BROWN
91	10 YR 4/3	N	0	-										BROWN/DARK BROWN
92	10 YR 3/3	N	0	-										DARK BROWN
93	CHERT	N	0	-	Y	N	2 44	N	2 05	N	1 08	N	4 93	-
94	SCHIST	Y	2	BATTERED	Y	N	8.86	N	7.12	N	2.25	N	215 4	-
94	SCHIST	N	1	POLISH	Y	N	8.86	N	7.12	N	2 25	N	215 4	-
96	METAVOLCANIC/P-A	N	0	-	N	N	2.05	N	1 37	N	0 43	N	0 94	2 PIECES
97	CHERT	N	0	-	N	N	1 17	N	1 08	N	0 28	N	0 21	-
100	METAVOLCANIC/P-A	N	0	-	N	N	1 73	N	1 14	N	0 5	N	1 09	-
101	QUARTZITE	N	0	-	N	N	1 06	N	0 61	N	0 3	N	0 25	-
103	10 YR 4/4	N	0	-										DARK YELLOWISH BROWN
104	METAVOLCANIC/A	N	0	-	N	N	1 54	N	1 67	N	0.53	N	1 39	-
105	CHERT	N	0	-	N	N	0.78	N	0 41	N	0.31	N	0 14	-
106	SANDSTONE	N	1	BATTERED	Y	N	12 6	N	10 11	N	6 19	N	926 6	-
107	10 YR 3/3	N	0	-										DARK BROWN
108	PORPHYRY	N	1	BATTERED	N	N	6 07	N	5 03	N	3.13	N	104 7	-
108	PORPHYRY	N	1	BATTERED	N	N	6 07	N	5.03	N	3.13	N	104 7	-
109	10 YR 3/3	N	0	-										DARK BROWN
110	10 YR 3/3	N	0	-										DARK BROWN
111	10 YR 3/3	N	0	-										DARK BROWN
112	10 YR 3/3	N	0	-										DARK BROWN
113	10 YR 4/4	N	0	-										DARK YELLOWISH BROWN
114	10 YR 4/4	N	0	-										DARK YELLOWISH BROWN
116	10 YR 4/3	N	0	-										BROWN/DARK BROWN
117	10 YR 3/3	N	0	-										DARK BROWN
118	10 YR 3/3	N	0	-										DARK BROWN
119	10 YR 5/3	N	0	-										BROWN
121	10 YR 3/3	N	0	-										DARK BROWN
122	PORPHYRY	N	1	WORN	N	N	4	N	1 71	N	0 57	N	3 68	-
123	10 YR 3/2	N	0	-										VERY DARK GRAYISH BROWN
124	CHERT	N	0	-	N	N	2 35	N	1 99	N	0 41	N	1 35	-
125	10 YR 3/3	N	0	-										DARK BROWN
126	10 YR 3/3	N	0	-										DARK BROWN
128	10 YR 3/3	N	0	-										DARK BROWN
129	PORPHYRY	N	0	-	Y		1 66	N	1.55	N	0.46	N	0 75	-
130	10 YR 3/3	N	0	-										DARK BROWN
131	10 YR 3/3	N	0	-										DARK BROWN
132	10 YR 3/3	N	0	-										DARK BROWN
133	CHERT	N	0	-	Y	N	4.88	N	4 38	N	2 73	N	45 31	-
134	CHERT	N	0	-	N	N	1.92	N	1 78	N	1.18	N	4 51	IN 2 PIECES

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-711	135	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	136	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	137	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	138	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	139	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	140	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	141	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	142	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	143	UNIT 9	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	144	UNIT 9	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	145	UNIT 9	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	146	UNIT 9	10	20	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	147	UNIT 9	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	148	UNIT 9	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	146	UNIT 9	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	149	UNIT 9	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	149	UNIT 9	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	151	UNIT 9	30	40	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	152	UNIT 9	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	153	UNIT 9	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	154	UNIT 9	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	155	UNIT 9	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	156	UNIT 9	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	157	UNIT 9	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	158	UNIT 9	40	50	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-711	159	UNIT 9	40	50	GROUND STONE	METATE	UNIFACIAL, INCOMPLETE
CA-ORA-711	160	UNIT 9	40	50	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-711	161	UNIT 9	40	50	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-711	162	UNIT 9	40	50	GROUND STONE	MANO	UNIFACIAL
CA-ORA-711	163	UNIT 9	40	50	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	164	UNIT 9	40	50	GROUND STONE	MANO	UNIFACIAL
CA-ORA-711	165	UNIT 9	40	50	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-711	165	UNIT 9	40	50	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-711	166	UNIT 9	40	50	CHIPPED STONE	CORE	SPENT
CA-ORA-711	167	UNIT 9	40	50	SAMPLE	SOIL	LEVEL
CA-ORA-711	168	UNIT 10	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	169	UNIT 10	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	170	UNIT 10	0	10	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-711	171	UNIT 10	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	172	UNIT 10	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	173	UNIT 10	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	174	UNIT 10	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	175	UNIT 10	10	20	SAMPLE	SOIL	LEVEL

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
135	CHERT	N	0	-	N	N	1 1	N	0 83	N	0.28	N	0 21	-
136	CHERT	N	0	-	N	N	1.61	N	1.31	N	0 35	N	0 54	-
137	CHERT	N	0	-	N	N	1.58	N	1 02	N	0 59	N	0 84	-
138	METAVOLCANIC/A	N	0	-	N	N	1 14	N	1 03	N	0 65	N	1.07	-
139	METAVOLCANIC/A	N	0	-	N	N	1 81	N	1 42	N	0 59	N	1.47	-
140	METAVOLCANIC/P-A	N	0	-	N	N	1 66	N	1 42	N	0 61	N	1 39	-
141	METAVOLCANIC/A	N	0	-	N	N	0.63	N	0.73	N	0.17	N	0/08	-
142	METAVOLCANIC/A	N	0	-	N	N	0.73	N	0 43	N	0 23	N	0 07	-
143	QUARTZITE	N	0	-	N	N	1 83	N	0 78	N	0.41	N	0.55	-
144	10 YR 3/3	N	0	-										DARK BROWN
145	CHERT	N	0	-	N	N	1 37	Y	0.69	Y	0.46	N	0.37	-
146	PORPHYRY	N	0	-	N	N	2 63	N	2 26	N	0.83	N	4 6	-
147	10 YR 4/3	N	0	-										BROWN/DARK BROWN
146	CHERT	N	0	-	N	N	1.02	N	0 83	N	0 76	N	0 93	-
146	CHERT	N	0	-	N	N	1 02	N	0 83	N	0.76	N	0 93	-
149	10 YR 4/3	N	0	-										-
149	10 YR 4/3	N	0	-										BROWN/DARK BROWN
151	QUARTZITE	N	0	-	N	Y	2 81	Y	2 41	Y	0 67	N	4 01	6 PIECES
152	10 YR 4/3	N	0	-										BROWN/DARK BROWN
153	PORPHYRY	N	1	BATTERED	Y	N	6 1	N	4.38	N	3 35	N	66 3	NOT MAPPED
154	QUARTZITE	N	0	-	N	N	4 54	N	2 55	N	1.49	N	18 61	NOT MAPPED
155	METAVOLCANIC/P-A	N	0	-	N	N	2 38	N	1 63	N	0 85	N	3.38	NOT MAPPED
156	CHERT	N	0	-	N	N	1 54	N	1 33	N	0 85	N	1 41	NOT MAPPED
157	CHERT	N	0	-	N	N	1 39	N	0 75	N	0 26	N	0 24	NOT MAPPED
158	QUARTZITE	N	0	-	N	N	8 66	N	6 14	N	3.63	N	214 9	-
159	PORPHYRY	N	0	-	N	N	6 74	Y	4 23	Y	5 9	Y	210	2 FRAGMENTS
160	QUARTZITE	N	2	BATTERED	Y	N	11 21	N	7 29	N	7.2	N	477 1	-
161	PORPHYRY	N	2	BATTERED	N	N	12 6	N	9 55	N	6 76	N	934 9	-
162	SANDSTONE	N	0	-	Y	N	8 51	N	6 99	N	4 26	N	295.3	-
163	PORPHYRY	N	2	BATTERED	N	N	6 92	N	4.27	N	2 93	N	130.38	-
164	QUARTZITE	N	1	BATTERED	Y	N	5.19	Y	6 75	Y	3.71	Y	194.91	-
165	QUARTZITE	Y	2	BATTERED	Y	N	9 9	N	8 42	N	4 79	N	615 6	-
165	QUARTZITE	N	2	BATTERED	Y	N	9 9	N	8 42	N	4 79	N	615 6	2 PIECES
166	CHERT	N	0	-	Y	N	3 84	Y	3 85	Y	3 1	Y	63 29	-
167	10 YR 4/3	N	0	-										BROWN/DARK BROWN
168	CHERT	N	1	WORN	N	N	1 53	N	0.71	N	0 23	N	0.26	-
169	CHERT	N	1	NIBBLED	N	N	3 13	N	1.78	N	0 71	N	3 89	-
170	GRANITIC	N	0	-	N	N	3 33	Y	2 25	Y	1 84	Y	18.05	2 PIECES
171	CHERT	N	0	-	Y	N	2 01	N	1 39	N	0 84	N	1 65	-
172	METAVOLCANIC/P-A	N	1	RETOUCHED	N	N	2 34	Y	1 64	Y	0 58	Y	2 4	-
173	CHERT	N	0	-	Y	N	3 24	N	2 24	N	1 47	N	9 5	-
174	10 YR 4/3	N	0	-										-
175	10 YR 4/3	N	0	-										-

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-711	176	UNIT 10	20	30	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	177	UNIT 10	20	30	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	178	UNIT 10	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	179	UNIT 10	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	180	UNIT 10	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	181	UNIT 10	20	30	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-711	182	UNIT 10	20	30	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-711	182	UNIT 10	20	30	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-711	183	UNIT 10	20	30	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-711	183	UNIT 10	20	30	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-711	184	UNIT 10	20	30	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	185	UNIT 10	20	30	CHIPPED STONE	HAMMERSTONE	UNMODIFIED
CA-ORA-711	186	UNIT 10	20	30	CHIPPED STONE	HAMMERSTONE	UNMODIFIED
CA-ORA-711	187	UNIT 10	20	30	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-711	188	UNIT 10	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	189	UNIT 11	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	190	UNIT 11	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	191	UNIT 11	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-711	192	UNIT 11	10	20	GROUND STONE	MANO	BIFACIAL
CA-ORA-711	193	UNIT 11	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-711	194	UNIT 11	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-711	195	UNIT 11	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-711	196	UNIT 12 - NO DEPTH CONTROL			CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	197	UNIT 12 - NO DEPTH CONTROL			CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	198	UNIT 12 - NO DEPTH CONTROL			GROUND STONE		
CA-ORA-711	199	UNIT 12 - NO DEPTH CONTROL			CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	200	UNIT 12 - NO DEPTH CONTROL			CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-711	201	UNIT 12 - NO DEPTH CONTROL			GROUND STONE	METATE	
CA-ORA-711	202	UNIT 12 - NO DEPTH CONTROL			CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	203	UNIT 12 - NO DEPTH CONTROL			SAMPLE	SOIL	LEVEL
CA-ORA-711	204	UNIT 12 - FEATURE 1			GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-711	205	UNIT 12 - FEATURE 1			GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-711	206	UNIT 12 - FEATURE 1			GROUND STONE	MANO	BIFACIAL
CA-ORA-711	207	UNIT 12 - FEATURE 1			GROUND STONE	MANO	BIFACIAL
CA-ORA-711	208	UNIT 12 - FEATURE 1			GROUND STONE	METATE	SLAB
CA-ORA-711	209	UNIT 12 - FEATURE 1			GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-711	211	OUTSIDE OF FENCE, COLLECTED AFTER PASS			GROUND STONE	MANO	BIFACIAL
CA-ORA-711	212	OUTSIDE OF FENCE, COLLECTED AFTER PASS			GROUND STONE	MANO	BIFACIAL
CA-ORA-711	213	OUTSIDE OF FENCE, COLLECTED AFTER PASS			CHIPPED STONE	OEBITAGE	FLAKE
CA-ORA-711	214	OUTSIDE OF FENCE, COLLECTED AFTER PASS			CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-711	215	ROAD COLLECTION AFTER GRADER			CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-711	216	ROAD COLLECTION AFTER GRADER			CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	217	ROAD COLLECTION AFTER GRADER			CHIPPED STONE	DEBITAGE	SHATTER

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
176	CHERT	N	0	-	N	N	2 29	Y	1.54	Y	0 76	Y	1.96	NOT MAPPED
177	METAVOLCANIC/P-A	N	0	-	N	N	4.65	Y	3.93	Y	1.29	Y	19 35	NOT MAPPED, 5 PIECES
178	METAVOLCANIC/P-A	N	0	-	N	N	5 18	N	4 28	N	2 67	N	50.64	NOT MAPPED
179	METAVOLCANIC/P-A	N	0	-	Y	N	5 67	N	3 41	N	1 42	N	31 4	NOT MAPPED
180	CHERT	N	0	-	N	N	1.8	N	1.42	N	0 68	N	1 51	NOT MAPPED
181	PORPHYRY	N	0	-	N	Y	11 16	Y	5 28	Y	1.72	Y	85 03	NOT MAPPED, 2 PIECES
182	METAVOLCANIC/P-A	Y	0	-	N	N	8 72	N	6 18	N	4 89	N	333 8	-
182	METAVOLCANIC/P-A	N	0	-	N	N	8 72	N	6 18	N	4 89	N	333 8	-
183	METAVOLCANIC/P-A	Y	0	-	N	N	8 47	N	7.48	N	4.67	N	326 9	-
163	METAVOLCANIC/P-A	N	0	-	N	N	8 47	N	7 48	N	4.67	N	326 9	-
184	CHERT	N	0	-	Y	N		Y		Y		Y	57 28	IN 3 PIECES
185	METAVOLCANIC/P-A	N	1	BATTERED	Y		9 13	N	7.05	N	5 54	Y	421 4	3 PIECES OF 1 ARTIFACT
186	METAVOLCANIC/A	N	2	BATTERED	N		7 39	N	5 95	N	5 42	N	220.6	-
187	GRANITIC	N	0	-	N		7 61	Y	10 84	Y	7.77	N	1034 6	-
188	10 YR 3/3	N	0	-										-
189	CHERT	N	0	-	Y	N	3 35	N	2 46	N	0 96	N	7 87	2 FRAGMENTS OF 1
190	METAVOLCANIC/P-A	N	0	-	N	N	1 67	N	1 35	N	0 51	N	1 15	-
191	10 YR 4/3	N	0	-										-
192	GRANITIC	N	0	-	N	N	10 64	N	9.56	N	6.8	N	944.6	-
193	10 YR 4/3	N	0	-										-
194	10 YR 4/3	N	0	-										-
195	10 YR 4/3	N	0	-										-
196	CHERT	N	1	RETOUCHED	N	N	2 05	N	1 54	N	0 59	N	1.55	-
197	CHERT	N	0	-	N	N	2 08	N	1 08	N	0 84	N	2	-
198	GRANITIC	N	0	-	N	Y		Y		Y		Y	73 76	11 PIECES, PROBABLY FIT TOGETHER, COULDN'T
199	METAVOLCANIC/P-A	N	1	FLAKED	N	N	2 62	N	1 17	N	0 76	N	1 39	-
200	QUARTZITE	N	0	-	N	N	5 86	N	5 1	N	1 84	N	58 61	-
201	SANDSTONE	N	0	-	N	N	11 89	Y	10.94	Y	7 2	Y	1060 2	-
202	QUARTZITE	N	0	-	N	N	1 81	N	1.27	N	0 83	N	1 4	-
203		N	0	-										*MISSING
204	GRANITIC	N	0	-	N	N	9 27	Y	7 13	Y	3.14	Y	260 5	-
205	SANDSTONE	N	0	-	N	N	13 22	N	9 91	N	5.28	N	980 4	SHAPED
206	GRANITIC	N	0	-	N	N	12 45	N	13.34	N	5 08	N	1071 5	-
207	GRANITIC	N	0	-	N	N	7.51	Y	5 41	Y	5 43	Y	245	-
208	SANDSTONE	N	0	-	N	N	47 6	N	40 1	N	9 7	N	30000	-
209	GRANITIC	N	0	-	N	N	4 53	Y	4 5	Y	2 81	Y	86 87	-
211	GRANITIC	N	0	-	N	N	10 91	N	7 69	N	4 86	N	633 7	-
212	GRANITIC	N	0	-	N	N	9 65	Y	4.51	Y	5 52	Y	340 3	-
213	QUARTZITE	N	1	NIBBLED	N	N	3 69	N	3 81	N	1 81	N	31 46	-
214	METAVOLCANIC/A	N	0	-	N	N	10 19	N	6 86	N	4 96	N	315.2	-
215	CHERT	N	0	-	Y	N	2 82	N	2 69	N	1.33	N	13 5	-
216	CHERT	N	1	FLAKED	Y	N	3 06	N	2.39	N	0.99	N	5.77	-
217	CHERT	N	1	FLAKED	N	N	3 66	N	3 16	N	1.99	N	17.7	-

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-711	218	ROAD COLLECTION AFTER GRADER			CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-711	219	ROAD COLLECTION AFTER GRADER			CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-711	220	COLLECTED IN BORING AREA			CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	221	FROM ROAD AFTER BULLDOZER DROVE OVER			CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-711	222	FROM ROAD AFTER BULLDOZER DROVE OVER			CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-711	223	FROM ROAD AFTER BULLDOZER DROVE OVER			GROUND STONE	METATE	
CA-ORA-711	224	FROM ROAD AFTER BULLDOZER DROVE OVER			GROUND STONE	HAMMERSTONE	MODIFIED
CA-ORA-711	224	FROM ROAD AFTER BULLDOZER DROVE OVER			GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-711	225	ND PROVENIENCE			HISTORIC	MILL BALL	
CA-ORA-711	226	UNIT 2	0	10	SAMPLE	SOIL	COLUMN
CA-ORA-711	227	UNIT 2	10	20	SAMPLE	SOIL	COLUMN
CA-ORA-711	228	UNIT 2	20	30	SAMPLE	SOIL	COLUMN
CA-ORA-711	229	UNIT 2	30	40	SAMPLE	SOIL	COLUMN
CA-ORA-711	230	UNIT 2	40	50	SAMPLE	SOIL	COLUMN
CA-ORA-711	231	UNIT 2	50	60	SAMPLE	SOIL	COLUMN
CA-ORA-711	232	UNIT 2 - POSTHOLE	100	100	SAMPLE	SOIL	POSTHOLE
CA-ORA-713	1	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-713	2	SURFACE COLLECTION	0	0	GROUND STONE	CHOPPER	
CA-ORA-713	2	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-713	3	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-713	4	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-713	5	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-713	6	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-713	7	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-713	8	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-713	9	SURFACE COLLECTION	0	0	GROUND STONE	METATE	BASIN
CA-ORA-713	10	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-713	11	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-713	12	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	UNIDIRECTIONAL
CA-ORA-713	13	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-713	14	UNIT 1	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-713	15	UNIT 1	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-713	16	UNIT 1	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-713	17	UNIT 1	30	40	SAMPLE	SOIL	LEVEL
CA-ORA-713	18	UNIT 2	1	10	SAMPLE	SOIL	LEVEL
CA-ORA-713	19	UNIT 2	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-713	20	UNIT 2 (HALF LEVEL)	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-713	21	UNIT 3	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-713	22	UNIT 3	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-713	24	UNIT 3	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-713	25	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-713	26	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-713	27	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	BIFACIAL

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
218	METAVOLCANIC/P-A	N	0	-	Y	N	10 4	N	8 99	N	3 3	N	302	-
219	METAVOLCANIC/P-A	N	0	-	Y	N	7 88	N	6.12	N	3 8	N	244.3	-
220	QUARTZITE	N	1	NIBBLED	N	N	6 61	N	4 5	N	2 08	N	66 37	-
221	CHERT	N	0	-	N	N	5 7	N	4 22	N	2 5	N	66 82	-
222	METAVOLCANIC/P-A	N	1	NIBBLED	Y	N	6 04	N	5 15	N	1.89	N	63 49	-
223	PORPHYRY	N	1	POLISH	N	N	12 34	Y	8 08	Y	8.77	N	1444 8	2 PIECES OF 1
224	GRANITIC	Y	2	BATTERED	Y	N	11 3	Y	7 45	Y	8.67	Y	864 1	-
224	GRANITIC	N	0	-	Y	N	11 3	Y	7 45	Y	8.67	Y	864 1	-
225		N	0	-		N	1.9	N	1.9	N	1.9	N	7 65	USED IN CLAY PROCESSING
226		N	0	-										-
227		N	0	-										-
228		N	0	-										-
229		N	0	-										-
230		N	0	-										-
231		N	0	-										-
232	10 YR 5/4	N	0	-										-
1	PORPHYRY	N	1	BATTERING	Y	Y	6.01	Y	9 95	Y	6 16	N	579.8	SURFACE LIGHTLY POLISHED
2	GRANITIC	N	1	CRUSHED	Y	N	10 48	N	7.86	N	5 41	Y	584 2	RE-USED AS CHOPPER
2	GRANITIC	N	1	WORN	Y	N	10 48	N	7 86	N	5.41	Y	584 2	SURFACE LIGHTLY POLISHED
3	GRANITIC	N	1	BATTERING	Y	N	10.38	N	7	N	4 67	N	503 1	POSSIBLE CRUSHING ON EDGE
4	GRANITIC	N	0	-	N	N	11 73	N	9 15	N	6 68	N	953	VERY LIGHT POLISH
5	PORPHYRY	N	0	-	N	Y	7 6	N	4 34	N	2 99	N	125.44	-
6	METAVOLCANIC/P-A	N	0	-	Y	N	12 6	N	5 69	N	2 89	N	188 47	2 SHARP EDGES-NO CLEAR MODIFICATIONS
7	QUARTZITE	N	0	-	Y	N	5 29	N	3 34	N	1 3	N	29.54	-
8	GRANITIC	N	0	-	Y	Y	9 92	N	9 49	N	7 18	N	956 8	POSSIBLE BATTERING
9	GRANITIC	N	0	-	N	N	22.2	Y	19	Y	14 5	N	6000	SURFACE MODERATELY POLISHED
10	GRANITIC	N	0	-	Y	N	7.9	Y	7 65	N	8.13	N	606 7	SURFACE LIGHTLY POLISHED
11	PORPHYRY	N	0	-	Y	N	5 71	Y	5 66	N	3 84	Y	162 64	SURFACE LIGHTLY POLISHED
12	METAVOLCANIC/P-A	N	0	-	Y	N	9 72	N	7.81	N	4.9	N	418 9	CRUDE CORTICAL PLATFORM
13	METAVOLCANIC/P-A	N	0	-	Y	N	7.44	N	6 42	N	4 61	N	222 4	CRUDE CORTICAL PLATFORM
14	10 YR 5/2	N	0	-										GRAYISH
15	10 YR 4/2	N	0	-										DARK GRAYISH BROWN
16	10 YR 4/3	N	0	-										BROWN/DARK BROWN
17	10 YR 4/3	N	0	-										BROWN/DARK BROWN
18	10 YR 5/4	N	0	-										YELLOWISH BROWN
19	10 YR 5/4	N	0	-										YELLOWISH BROWN
20	10 YR 5/4	N	0	-										YELLOWISH BROWN
21	10 YR 4/1	N	0	-										DARK GRAY
22	10 YR 4/1	N	0	-										DARK GRAY
24	10 YR 3/1	N	0	-										VERY DARK GRAY
25	METAVOLCANIC/P-A	N	1	NIBBLED	Y	N	5 16	N	4 45	N	1 77	N	40 26	-
26	PORPHYRY	N	0	-	Y	N	12.4	N	5 6	Y	7.26	Y	691 4	-
27	PORPHYRY	N	0	-	Y	N	13 6	N	8.09	N	5 58	N	853 9	-

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-713	28	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	UNIFACIAL
CA-ORA-713	29	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-713	30	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-713	31	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	SCRAPER	
CA-ORA-713	32	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-713	33	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-713	34	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-713	35	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	SCRAPER	
CA-ORA-713	36	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	CORE	
CA-ORA-713	37	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	SCRAPER	
CA-ORA-713	38	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-714	1	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-714	2	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-714	3	SURFACE COLLECTION	0	0	GROUND STONE	HAMMERSTONE	UNMODIFIED
CA-ORA-714	3	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-714	4	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-714	5	SURFACE COLLECTION	0	0	CHIPPED STONE	HAMMERSTONE	UNMODIFIED
CA-ORA-714	6	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-714	7	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-714	9	SURFACE COLLECTION	0	0	CHIPPED STONE	HAMMERSTONE	UNMODIFIED
CA-ORA-714	10	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-714	11	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	MODIFIED
CA-ORA-714	12	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-715	1	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	2	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	3	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	4	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	5	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	6	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	7	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	8	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	9	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	10	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-715	11	SURFACE COLLECTION	0	0	GROUND STONE		
CA-ORA-715	12	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-715	13	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	14	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	15	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-715	16	SURFACE COLLECTION	0	0	CHIPPED STONE	HAMMERSTONE	
CA-ORA-715	17	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	18	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	19	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	20	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	

Trinomial	Cat	Location	Top1	Bottom1	Subassemblage	Class	Type
CA-ORA-715	21	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	22	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	23	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-715	24	SURFACE COLLECTION	0	0	GROUND STONE		
CA-ORA-715	25	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-715	26	SURFACE COLLECTION	0	0	CHIPPED STONE	CORE	BIDIRECTIONAL
CA-ORA-715	27	SURFACE COLLECTION	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-715	28	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-715	29	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	UNIFACIAL, INCOMPLETE
CA-ORA-715	30	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	CHOPPER	UNMODIFIED
CA-ORA-715	31	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	CORE	MULTIDIRECTIONAL
CA-ORA-715	32	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	33	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	AX	
CA-ORA-715	34	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-715	35	SURFACE COLLECTION AFTER DISCING	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	36	SURFACE COLLECTION AFTER DISCING	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	37	UNIT 1	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	38	UNIT 1	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-715	39	UNIT 1	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-715	40	UNIT 1	20	30	SAMPLE	SOIL	LEVEL
CA-ORA-715	41	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	42	UNIT 2	0	10	CHIPPED STONE	DEBITAGE	SHATTER
CA-ORA-715	43	UNIT 2	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-715	44	UNIT 2	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-715	45	SURFACE COLLECTION	0	0	CHIPPED STONE	CHOPPER	UNMODIFIED
CA-ORA-715	46	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL
CA-ORA-715	47	SURFACE COLLECTION	0	0	CHIPPED STONE	ANVIL	
CA-ORA-715	48	SURFACE COLLECTION	0	0	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	49	SURFACE COLLECTION	0	0	GROUND STONE	MANO	BIFACIAL, INCOMPLETE
CA-ORA-715	50	UNIT 3	0	10	CHIPPED STONE	DEBITAGE	FLAKE
CA-ORA-715	51	UNIT 3	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-715	52	UNIT 3	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-715	53	UNIT 4	0	10	SAMPLE	SOIL	LEVEL
CA-ORA-715	54	UNIT 4	10	20	SAMPLE	SOIL	LEVEL
CA-ORA-715	55	UNIT 4	20	30	SAMPLE	SOIL	LEVEL

Saddleback Meadows Catalog (2 sheets)

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
28	GRANITIC	N	0 -		N	N	7 7	N	7.06	N	3.79	N	292 3	-
29	GRANITIC	N	0 -		N	Y	10.53	Y	10 01	Y	5.38	N	838 4	-
30	GRANITIC	N	0 -		N	Y	5	Y	3.95	Y	4.91	Y	163.26	-
31	METAVOLCANIC/P-A	N	0 -		N	N	5 26	N	3 83	N	1.78	N	35 15	-
32	QUARTZITE	N	0 -		Y	N	6 8	N	2 96	N	1.71	N	42 52	-
33	METAVOLCANIC/P-A	N	1	WORN	Y	N	7.79	N	5 44	N	2 85	N	82.46	-
34	QUARTZITE	N	2	WORN, BATTERE	Y	N	6.85	N	6.12	N	3 94	N	230.8	-
35	GRANITIC	N	0 -		N	N	3 64	N	5 98	N	7 26	N	191.63	-
36	QUARTZITE	N	0 -		Y	N	10.08	N	7.51	N	3 84	N	348 5	-
37	METAVOLCANIC/A	N	1	WORN	N	N	6 92	N	6 36	N	3 47	N	219 5	-
38	GRANITIC	N	0 -		N	N	10 73	Y	8 56	Y	6 1	Y	827.6	-
1	PORPHYRY	N	3	BATTERED	N	N	11.44	N	9 45	N	3 98	N	721	BATTERED ON OUTER EDGES
2	PORPHYRY	N	1	BATTERED	Y	N	10 94	N	7 17	N	5.03	N	493 7	STRONG URINE SMELL ON ROCK
3	PORPHYRY	Y	3	BATTERED	N	N	14.02	N	9 37	N	6.33	N	1163 9	ALSO A MANO
3	PORPHYRY	N	0 -		N	N	14 02	N	9 37	N	6 33	N	1163.9	ALSO A HAMMERSTONE
4	METAVOLCANIC/P-A	N	1	FLAKED, BATTER	Y	N	9.93	N	6 54	N	3 38	N	230.1	FLAKES TAKEN OFF THE EDGE
5	METAVOLCANIC/P-A	N	2	BATTERED	N	N	7.09	N	5.08	N	4 15	N	194.5	-
6	PORPHYRY	N	0 -		N	N	9.15	Y	4 92	Y	2.58	Y	139 97	2 PIECES OF 1 FRAGMENT
7	QUARTZ	N	3	FLAKED, RETOUC	Y	N	6.45	N	5 23	N	3.03	N	102 74	2 FLAKE SCARS, TOOL?, 1 RETOUCHED EDGE
9	METAVOLCANIC/P-A	N	0 -		N	N	7 86	N	6 92	N	4.8	N	317.9	-
10	PORPHYRY	N	1	CRUSHED	N	N	8.74	N	6.74	N	2.95	N	233 4	-
11	PORPHYRY	N	2	NIBBLED	N	N	9.3	N	7 61	N	2 44	N	224 9	-
12	CHERT	N	0 -		Y	N	6.75	N	4 2	N	5.05	N	154.27	-
1	CHERT	N	0 -		Y	N	3 65	N	2.88	N	1 69	N	21.27	-
2	PORPHYRY	N	1	BATTERED	Y	N	9.72	Y	6 31	Y	4 34	Y	400 8	ONE SURFACE HAS A LARGE PIT
3	PORPHYRY	N	3	BATTERED	N	N	10.3	Y	9 52	Y	4 8	Y	700	POLISH EXTENDS ONTO ONE SIDE
4	SANDSTONE	N	4	CRUSHED	N	N	12 37	N	7.43	N	4 16	N	646 2	SHAPED
5	PORPHYRY	N	0 -		N	N	12 23	N	8 1	N	5.94	N	799 6	3 PIECES OF 1
6	METAVOLCANIC/P-A	N	2	NIBBLED	Y	N	4 3	N	3 62	N	1 27	N	17.03	UTILIZED FLAKE
7	CHERT	N	2	RETOUCHED	Y	N	3 24	N	2.13	N	1 23	N	6.01	1 RETOUCHED EDGE, 1 UTILIZED EDGE
8	CHERT	N	1	NIBBLED	N	N	3 62	N	2 91	N	1 34	N	13 96	1 UTILIZED EDGE
9	PORPHYRY	N	0 -		Y	N	6.32	Y	6.12	Y	4 9	N	272.6	-
10	PORPHYRY	N	1	BATTERED	N	N	10.34	N	8 85	N	4 78	N	567 9	-
11	QUARTZITE	N	1	POLISHED	N	N	7 36	N	3.65	Y	2 31	Y	103 97	-
12	METAVOLCANIC/P-A	N	1	BATTERED	N	N	12 45	Y	8 68	Y	6 26	Y	901.7	-
13	JASPER	N	0 -		N	N							2.83	4 FRAGMENTS OF 1 PIECE
14	PORPHYRY	N	0 -		N	N	5 08	Y	5.98	N	3 7	N	170 38	-
15	METAVOLCANIC/P-A	N	0 -		Y	N	8 4	N	7.89	N	4 14	N	298.7	-
16	METAVOLCANIC/P-A	N	1	BATTERED	Y	N	10 13	N	5.73	N	4 69	N	324 6	-
17	CHERT	N	1	RETOUCHED	Y	N	1 9	N	1.23	N	0 53	N	1.2	-
16	QUARTZITE	N	1	NIBBLED	N	N	3 29	N	2 17	N	0 9	N	6 64	-
19	METAVOLCANIC/P-A	N	0 -		N	N	5 27	N	3 5	N	1.46	N	17 64	-
20	QUARTZITE	N	0 -		N	N	8 81	Y	10 02	Y	5.32	N	816 4	-

Saddleback Meadows Catalog (2 sheets)

Cat	Material	Dup	No	Modification Type	Cort	Th	Length	P	Width	P	Thickness	P	Weight	Comments
21	METAVOLCANIC/P-A	N	1	NIBBLED	N	N	1.66	Y	1 5	Y	0 41	N	0 88	-
22	METAVOLCANIC/P-A	N	1	-	N	N	3	N	2 73	N	0 44	N	4.88	UTILIZED FLAKE
23	SANDSTONE	N	0	-	N	N	6 12	Y	7.21	N	3 8	N	270	SHAPED
24	PORPHYRY	N	0	-	Y	Y	12.5	Y	9 68	Y	5 6	Y	647.8	-
25	QUARTZ	N	0	-	N	N	8.58	Y	7 36	Y	5.4	Y	467	-
26	METAVOLCANIC/A	N	0	-	N	N	7 67	N	7.19	N	4 04	N	266 2	-
27	GRANITIC	N	0	-	N	N	12.35	Y	6.99	Y	6 39	N	915	-
28	PORPHYRY	N	1	WORN	N	N	9 85	Y	4 92	Y	61.62	Y	295 4	-
29	PORPHYRY	N	0	-	N	N	7 85	Y	9 67	N	4 96	N	548 4	-
30	METAVOLCANIC/P-A	N	1	WORN	N	N	8.28	N	4.44	N	4 87	N	259 3	-
31	METAVOLCANIC/P-A	N	0	-	Y	N	6 34	N	5 51	N	4 09	N	198 5	-
32	METAVOLCANIC/A	N	0	-	Y	N	3 65	N	2.59	N	2 29	N	27 72	-
33	QUARTZITE	N	1	BATTERED	Y	N	12.54	N	82 82	N	4 94	N	672 2	SHAPED
34	QUARTZITE	N	0	-	Y	N	13 65	N	11 69	N	6 19	N	1150 2	-
35	METAVOLCANIC/A	N	0	-	Y	N	2.59	N	2 46	N	0 75	N	4 17	-
36	QUARTZITE	N	1	PECKED	N	N	10 43	N	8 72	N	5 04	N	724 5	INTERESTING SHAPE
37	CHERT	N	0	-	Y	N	4 25	N	2.83	N	1 99	N	39 38	-
38	10 YR 5/3	N	0	-										-
39	10 YR 4/3	N	0	-										-
40	10 YR 4/3	N	0	-										-
41	CHERT	N	0	-	Y	N	1.92	N	1.13	N	1 13	N	2 82	-
42	CHERT	N	0	-	N	N	0 94	N	0 63	N	0.24	N	0 14	-
43	10 YR 5/4	N	0	-										-
44	10 YR 5/3	N	0	-										-
45	METAVOLCANIC/P-A	N	1	BATTERED	Y	N	71 02	N	58.57	N	2 53	N	119 95	-
46	PORPHYRY	N	0	-	N	N	13 69	N	8 95	N	61 33	N	1113 2	PECKED ON ONE SURFACE
47	METAVOLCANIC/P-A	N	1	BATTERED	N	N	10.51	N	10.96	N	5 61	N	827.1	-
48	METAVOLCANIC/P-A	N	1	NIBBLED	Y	N	8.26	N	6.37	N	2 9	N	158 6	-
49	PORPHYRY	N	0	-	Y	N	11 77	Y	9 63	Y	8 05	N	988 7	-
50	CHERT	N	1	NIBBLED	N	Y	1 09	N	1 01	N	0 56	N	0 6	-
51	10 YR 4/3	N	0	-										-
52	10 YR 4/4	N	0	-										-
53	10 YR 3/3	N	0	-										-
54	10 YR 3/3	N	0	-										-
55	10 YR 4/4	N	0	-										-

APPENDIX B
Personnel Resumes

RESUME

Patrick O. Maxon
27292 Padilla
Mission Viejo, California 92691
Home: (714) 859-4209
Office: (714) 770-8042

EDUCATION

M.A. Anthropology. 1994, California State University, Fullerton. Concentration in Archaeology
B.A. Sociology/Psychology: 1987, Towson State University, Maryland.
University of Maryland, Munich Campus, Munich, Germany (one semester)

HONORS

Dean's List, National Honor Society for Sociology (1987), Varsity soccer (TSU), Scholar athlete

EMPLOYMENT HISTORY

8-94 - present	Staff Archaeologist for RMW Paleo Associates. Responsibilities include project management, developing project proposals, conducting research, accomplishing field work (survey, excavation, monitoring) and completing technical reports.
7-90 - 8-94	Behavioral Specialist/Job Trainer Vantage Foundation, Costa Mesa, California. Worked with a group of three developmentally disabled adults teaching daily life and employment skills and managing maladaptive behaviors.
7-89 - 10-89	House Manager Pearlmark group home, Anaheim, California. Oversaw a home of 30-40 mentally ill individuals Planned daily activities, managed homes employees, and met with residents' social workers, case managers and health professionals
7-88 - 7-89	Instructor for United Cerebral Palsy, Santa Ana, California Taught class of 25 developmentally disabled adults basic life skills and community integration.

SELECTED ARCHAEOLOGICAL EXPERIENCE

Bryant Ranch, Yorba Linda, California
Primary Number 30-150052
Duties: survey, excavation, monitoring, report preparation
7/96 - 1/97

Leisure World Self Storage, Laguna Niguel, California
CA-ORA-610
Duties: Project Manager, survey, report preparation
6/96 - 7/96

Rancho Los Cerritos Adobe
CA-LAN-696
Duties: excavation, monitoring
4/96 - 5/96

Cal State San Bernardino Master Plan, California
CA-SBR-6581H
Duties: Project Manager; survey, report preparation
3/96 - 4/96

Camp Pendleton, San Diego County, California
Duties: Project Manager; monitoring, report preparation
1/96 - 3/96

Marblehead Coastal, San Clemente, California
CA-ORA-MH-1H & MH
Duties: Project Manager; survey, report preparation
1/96 - 3/96

Saddleback Meadows, El Toro, California
CA-ORA-710, -711, -713, -714, -715, -1255, 1435H, -1437
Duties: Field Director; excavation, survey, report preparation
9/95 - 12/95

LaHabra, California
Duties: Project Manager; monitoring, report preparation
7/95 - present

Evans Point, Carlsbad, California
CA-SDI-14140 & CA-SDI-14151
Duties: Project Manager, monitoring, report preparation
6/95 - 1/96

RESUME

Ronald M. Bissell
24762 Via Del Rio
El Toro, California 92630
(714) 837-9582

EDUCATION

Master of Arts, Anthropology, Archaeological Emphasis.
California State University, Fullerton, California, 1983.

Master of Science, Library Science.
California State University, Fullerton, California, 1977.

Bachelor of Arts, Geology and History,
San Diego State University, San Diego, California, 1972.

Introduction to Federal Projects and Historic Preservation Law.
Sponsored by the Advisory Council on Historic Preservation and the General Services Administration Training Center, 1989.

EMPLOYMENT HISTORY

January 1986, Present. President, RMW Paleontological Associates, Incorporated, 23352 Madero, Suite J, Mission Viejo, California 92691. Duties include Principal Investigator responsibilities for all aspects of Cultural Resources Management projects

April 1983, January 1986 Independent Consultant performing archaeological assignments for clients in California.

May 1976, April 1983 Information Specialist and Administrative Services Officer, Leighton and Associates, 1151 Duryea Avenue, Irvine, California 92714 Leighton and Associates is a geotechnical consulting firm.

March 1956, April 1976. United States Army. Rank at retirement was Major of Field Artillery.

CREDENTIALS

Certified by the Society of Professional Archaeologist as a Field Archaeologist.

Certified as an Archaeologist by the County of Orange Environmental Management Agency. Also certified by the Counties of Ventura, Los Angeles, Riverside and San Bernardino, Kern, Kings, Fresno, Tulare, Madera and San Diego as well as various municipal agencies.

California Community College credentials as Instructor in Anthropology, Library Science and Business Administration and as Chief Administrative Officer and Librarian.

Certified as Open Water Scuba Diver by the Professional Association of Diving Instructors.

MEMBERSHIPS

Society of Professional Archaeologists
Pacific Coast Archaeological Society
Society for California Archaeology
Southwestern Anthropological Association
California Mission Studies Association
American Library Association
California Library Association
South Coast Geological Society

PUBLICATIONS

Archaeological Site CA-Ora-572, a Two Component Site in Fullerton, California Master's Thesis on file at the Library, California State University, Fullerton, California.

A Previously Unrecognized Grinding Technology from CA-Ora-572. Paper presented to the Southwestern Anthropological Association, April 1983. Expanded version published in the Quarterly of the Pacific Coast Archaeological Society, Volume 19, Number 3, July 1983.

Orange County's First Fairgrounds, 1890-1900. Proceedings of the Conference of Orange County History, 1989.

Archaeological Site CFA-Ven-630: A Solstice observatory in Simi Valley, Ventura County, California.

Archaeological Site CA-Ora-1058. Six Cairns in Orange County, California. Proceedings of the Society for California Archaeology, Volume 7, 1994.

OTHER INFORMATION

Completed graduate level classes in Land Use Planning, Computer Programming and Statistical Analysis.

Army trained land surveyor. Organized and taught a two semester hour class in land survey for archaeologists at the Anthropology Department, California State University, Fullerton, California.

Simi Valley, California (Hopetown)
CA-VEN-782
Duties: monitoring, excavation, report preparation
2/95 - 5/95

Rose Canyon, San Diego, California
CA-SDI-12557
Duties: field crew, excavation
9/94 - 2/95

Cal State University, Fullerton, Field School
CA-ORA-35, Los Pinos, California
Duties: field crew, excavation
8/92 - 12/92

SELECTED PALEONTOLOGICAL EXPERIENCE

Paleontological Monitoring:

Home Avenue, T C. Construction, San Diego, California

Big Canyon, S & S Construction Co , Laguna Niguel, California

Kaufman & Broad, Chino Hills, California

Toll Bros., San Juan Capistrano, California

Home Depot, Laguna Hills, California

Sun Lakes, Banning, California

Paleontological Salvage:

Unocal, West Coyote Hills, California· *Bison latifrons* salvage

Big Canyon, S & S Construction Co. Baleen whale salvage

SELECTED TECHNICAL REPORTS

Bissell, Ron and Patrick Maxon

1994 Cultural Resources Reconnaissance of Proposed Sewer Lines and Support Facilities, and Test Excavation of Three Sites in Valley Center, San Diego County, California.

Maxon, Patrick

1995 Archaeological Survey and Impact Assessment of the Proposed Upgrade to the Capistrano Beach Water District Waste Water Treatment Facility.

1995 Archaeological Survey and Impact Assessment of the Capistrano Beach Water District Stonehill Road Right of Way Acquisition

1995 Archaeological Test Excavation of Cultural Resources Located Within the Saddleback Meadows Planned Development, Orange County, California.

1996 Archaeological Monitoring of Grading for the Evans Point Planned Development, City of Carlsbad, San Diego County, California.

1996 Archaeological Reconnaissance and Impact Assessment of the Proposed Development of Marblehead Coastal, San Clemente, California.

1996 Archaeological Monitoring of Trenching for the Aircraft Support Equipment Refueling Station, Camp Pendleton, San Diego County, California.

1996 Cultural Resources Reconnaissance and Impact Assessment of Proposed Development for the California State University, San Bernardino Master Plan

1996 Cultural Resources Reconnaissance and Impact Assessment for the Proposed Development of the Leisure World Self Storage Facility in Laguna Niguel, California.

1997 Cultural Resources Investigation at the Bryant Ranch, Yorba Linda, Orange County, California, Tentative Tract 15199.

Maxon, Patrick O. and Edward J. Knell

1996 Archaeological Test Excavation of a Prehistoric Rock Shelter, Excavation and Recovery of Three Historic Deposits, Collection of an Historic Isolate and Monitoring of Grading at Hopetown, Simi Valley, Ventura County, California

AUTHOR: Patrick O. Maxon

DATE: March 1997

TITLE: Summary of Cultural Resources Investigation and Recommendations for Further Work Within the Saddleback Meadows Planned Development, Orange County, California

(Confidential Appendix)

SUBMITTED BY RMW Paleo Associates, Incorporated
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Mission Viejo, California 92691
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SUBMITTED TO: TPG Management, Incorporated
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Newport Beach, California 92660

CONTRACT NUMBER: RMW Project Number 97-1006

MAP: USGS Santiago Peak, California 7 5 Minute Quadrangle, 1954, Photorevised 1973

KEYWORDS: Orange County; Saddleback Meadows; Township 6S, Range 7W; San Bernardino Base and Meridian; CA-ORA-710, -711, -712, -713, -714, -715, -716, -1255, -1256, -1257, -1437 & -1435H

APPENDIX J
FISCAL IMPACT ANALYSIS

FISCAL IMPACT ANALYSIS
SADDLEBACK MEADOWS
COUNTY OF ORANGE

Submitted to:

The Presidio Group
1601 Dove Street, Suite 105
Newport Beach, California 92660

March 25, 1997

STANLEY R. HOFFMAN ASSOCIATES

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EXECUTIVE SUMMARY

This report presents the fiscal analysis of the Proposed Project and four development alternatives for Saddleback Meadows. The project site is located in unincorporated Orange County east of Portola Hills.

The Land Use Plans

The Saddleback Meadows project is planned for 222 acres south of the intersection of El Toro Road and Live Oak Canyon Road. Buildout of the Proposed Project will include 705 manufactured single family detached homes, 1.7 acres of neighborhood commercial, local and regional hiking trails and open space. Four development alternatives include residential, trails and open space uses with the following units for each alternative:

Alternative 1 - 150 single family detached units on 20,000 square foot lots
Alternative 2 - 100 single family detached units on 4,000 square foot lots
Alternative 3 - 299 single family detached units on 6,400 square foot lots
Alternative 4 - 140 single family detached units and 178 attached units

Fiscal Impacts

Table A summarizes the projected fiscal impacts to the Orange County General Fund; the County Road Fund; the County Library District; and the Harbor, Beaches and Parks Department at buildout of the five land use plans for Saddleback Meadows.

As shown in Table A, Alternative 3 (299 units) is the only land use plan with recurring annual surpluses projected for all funds. For Alternative 1 (150 units), recurring surpluses are projected for the County General Fund, the Library District and the Harbors, Beaches and Parks Department. Recurring surpluses to the County Road Fund and the Harbors, Beaches and Parks Department are projected for the Proposed Project and Alternative 4 (318 units). Recurring surpluses to the County General Fund and the County Library District for Alternative 2 (100 units)

County General Fund. A recurring annual surplus to the County General Fund is projected for Alternative 1 (150 units), Alternative 2 (100 units) and Alternative 3 (299 units). The County General Fund is projected to have a recurring annual deficit for the Proposed Project and Alternative 4 (318 units).

County Road Fund. Annual recurring surpluses to the County Road Fund are projected for the Proposed Project, Alternative 3 (299 units) and Alternative 4 (318 units). The County Road Fund is projected to have recurring deficits for Alternative 1 (150 units) and Alternative 2 (100 units).

TABLE A
SADDLEBACK MEADOWS
FISCAL IMPACTS AT BUILDOUT
(In Constant 1997 Dollars)

	Proposed Project (705 Units)	Alternatives 1 (150 Units)	2 (100 Units)	3 (299 Units)	4 (318 Units)
County General Fund					
Recurring Revenues	$174,128	$54,214	$25,955	$99,605	$74,477
Recurring Costs	$181,033	$38,117	$25,411	$75,979	$80,808
Recurring Surplus(Deficit)	($6,905)	$16,097	$544	$23,626	($6,331)
Revenue/Cost Ratio	0.96	1.42	1.02	1.31	0.92
County Road Fund					
Recurring Revenues	$13,468	$2,866	$1,910	$5,712	$6,075
Recurring Costs	$5,000	$5,000	$5,000	$5,000	$5,000
Recurring Surplus(Deficit)	$6,468	($2,134)	($3,090)	$712	$1,075
Revenue/Cost Ratio	2.69	0.57	0.38	1.14	1.22
County Library District					
Recurring Revenues	$19,080	$9,953	$4,122	$17,752	$11,120
Recurring Costs	$25,921	$5,515	$3,677	$10,994	$11,692
Recurring Surplus(Deficit)	($6,842)	$4,438	$445	$6,759	($572)
Revenue/Cost Ratio	0.74	1.80	1.12	1.61	0.95
County Harbor, Beach and Parks					
Recurring Revenues	$14,312	$8,448	$3,328	$14,927	$8,761
Recurring Costs	$6,182	$6,182	$6,182	$6,182	$6,182
Recurring Surplus(Deficit)	$8,130	$2,266	($2,854)	$8,745	$2,579
Revenue/Cost Ratio	2.32	1.37	0.54	2.41	1.42

Source: Stanley R. Hoffman Associates, Inc.
The Presidio Group
County of Orange, "Fiscal Methodology and Interim Fiscal Impact Guidelines Workbook", November 1, 1996

20,667

County Library District. At project buildout, the County Library District is projected to have a net recurring surpluses for Alternative 1 (150 units), Alternative 2 (100 units) and Alternative 3 (299 units). The County Library District is projected to have recurring deficits for the Proposed Project (705 units) and Alternative 4 (318 units).

Harbor, Beaches and Parks. County Harbors, Beaches and Parks is estimated to have annual recurring surpluses for the Proposed Project (705 units), Alternative 1 (150 units), Alternative 3 (299 units) and Alternative 4 (318 units). An annual recurring deficit to the Harbor, Beaches and Parks Department is projected for Alternative 2 (100 units).

Fiscal Assumptions

The projected recurring revenue and recurring costs are based on factors from the Orange County Fiscal Methodology and Interim Fiscal Impact Guidelines Workbook, November 1, 1996. Property tax allocation data for the project site was obtained from the Orange County Auditor Controller.

Residential valuations were provided by The Presidio Group as follows:

Proposed Project	$155,000 per unit
Alternative 1	$440,000 per unit
Alternative 2	$260,000 per unit
Alternative 3	$390,000 per unit
Alternative 4	$260,000 per detached unit; $180,000 per attached unit

CHAPTER 1

INTRODUCTION

This report presents the fiscal impacts for the Proposed Project and four land use alternatives for the Saddleback Meadows area, located in unincorporated Orange County. The fiscal impact analysis projects recurring costs and revenues to the Orange County General Fund; the County Road Fund; the County Library District; and the County Harbors, Beaches and Parks Department at buildout of the Proposed Project and four development alternatives.

1.1 Background

The Saddleback Meadows area is about 222.2 acres in size. Figure 1-1 shows the general location of the Saddleback Meadows area within unincorporated Orange County. As shown in Figure 1-2, the project site is located approximately one-quarter mile south of the intersection of El Toro Road and Live Oak Canyon Road. Surrounding land uses to the south include the Hidden Hills residential development; the Ranakrishna Monastery; and O'Neil Regional Park. To the west is the residential community of Portola Hills, to the north is Saint Michael's Prep School and Abbey and to the east is existing and planned residential development.

For purposes of this report, the analysis assumes buildout of the five land use plans. The site plan for the Proposed Project is shown in Figure 1-2 and includes 705 manufactured single family detached homes and 1.7 acres of neighborhood commercial uses. Other uses include regional and local trails and natural open space. The four development alternatives include only residential uses, trails and open space.

1.2 Approach

The fiscal analysis is based on data and assumptions from the following sources:

FIGURE 1-1
SADDLEBACK MEADOWS
REGIONAL LOCATION MAP

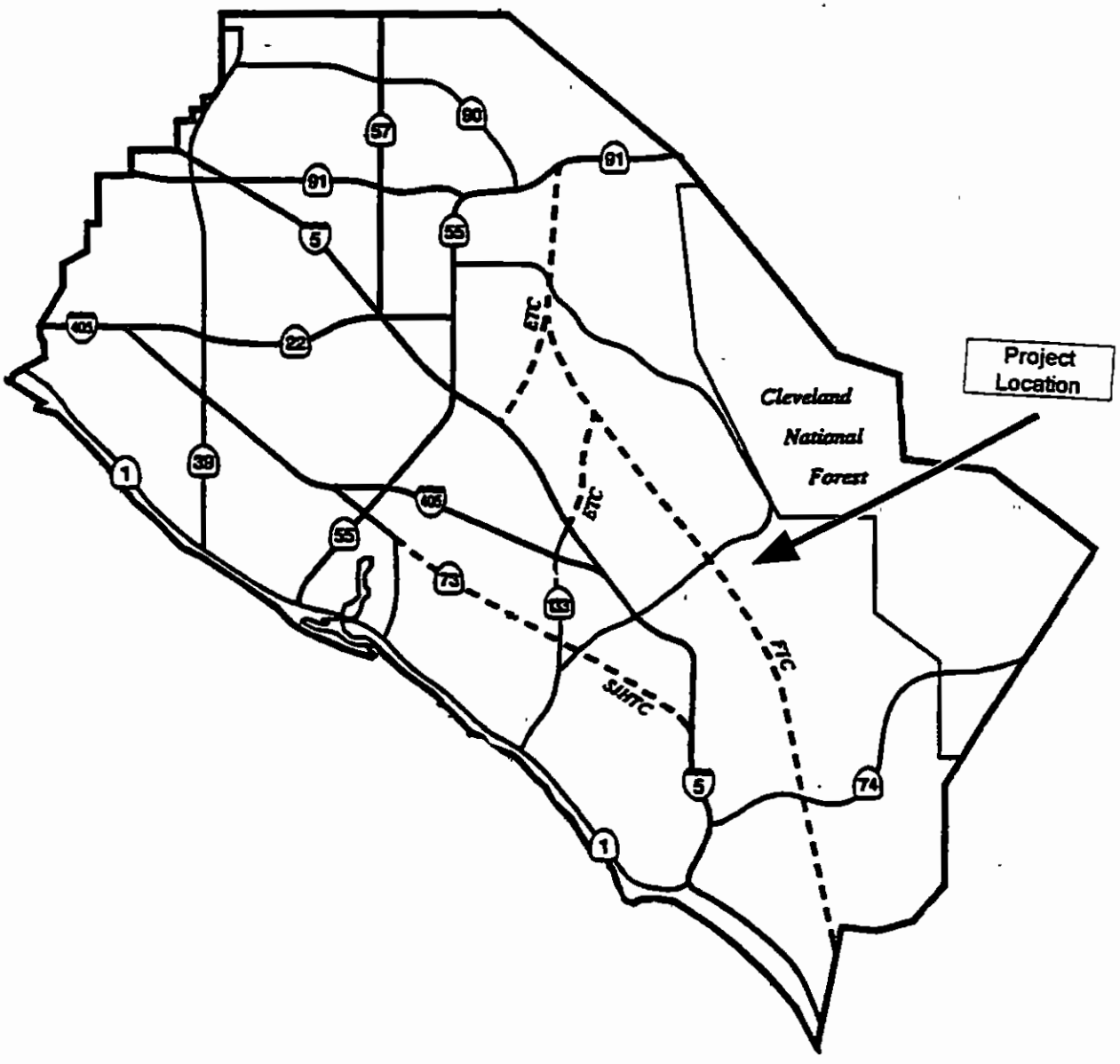
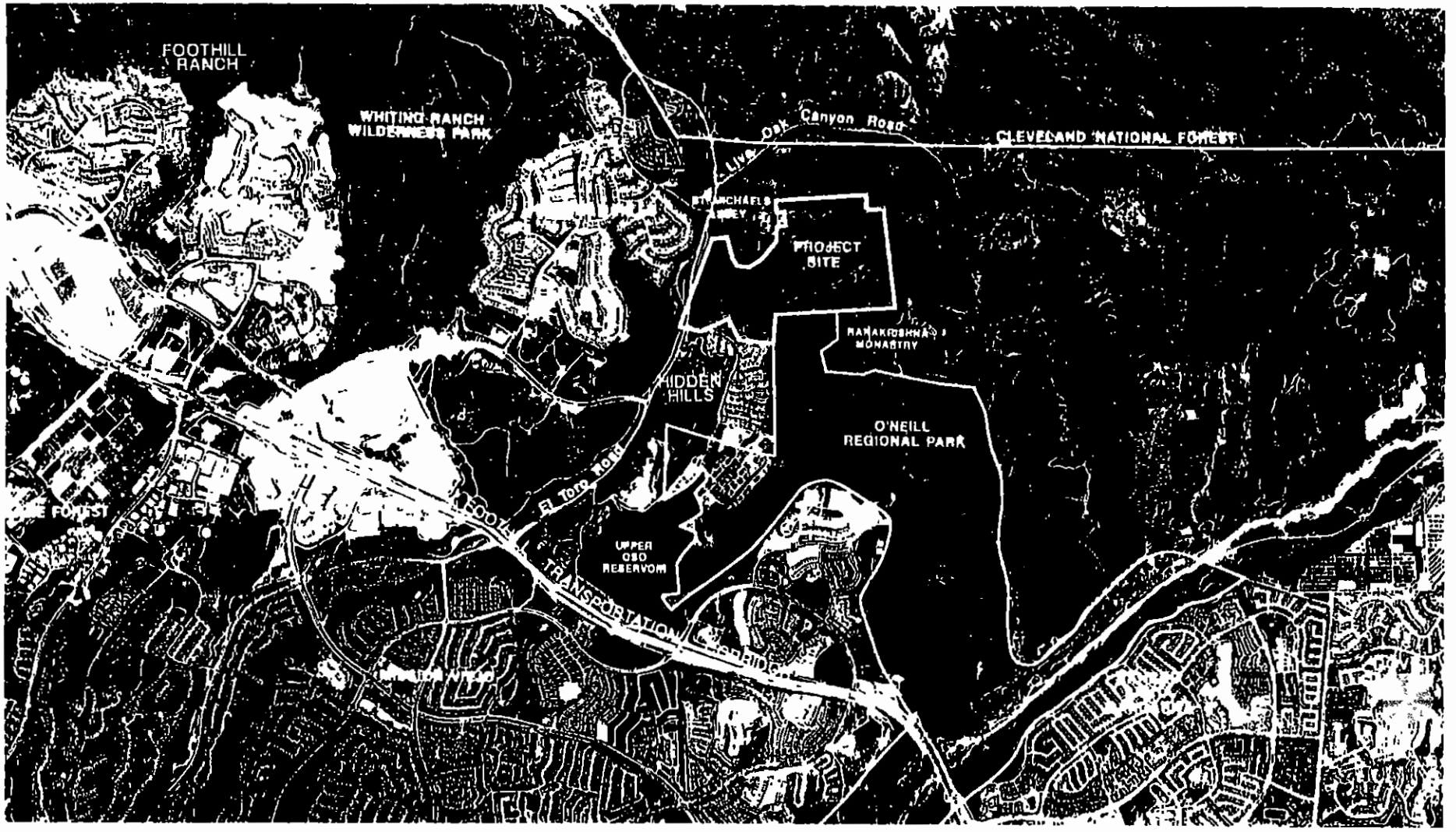


FIGURE 1-2
SADDLEBACK MEADOWS
VICINITY MAP



- County cost and revenue factors have been derived from the County of Orange Fiscal Methodology and Interim Fiscal Impact Guidelines Workbook prepared by Stanley R. Hoffman Associates, November 1, 1996.
- Project valuation information was provided by The Presidio Group.
- Various assumptions for public works improvements and other infrastructure have been prepared by the project proponent.
- Cost and revenue factors are projected in constant 1997 dollars with no adjustments for possible future inflation.

1.3 Overview

Chapter 2 is a description of the land uses associated with the Saddleback Meadows proposed development plan and four development alternatives. Chapter 3 presents a summary of the fiscal impact analysis resulting from the development plans for Saddleback Meadows. Fiscal impacts are presented for the Orange County General Fund; Road Fund; Library Fund: and Harbors, Beaches and Parks.

Appendix A presents the land use and market factors; revenue factors; and cost factors used for the fiscal analysis.

CHAPTER 2

PROJECT DESCRIPTION

This chapter presents the land use and infrastructure descriptions for the Saddleback Meadows development plans. The project site is about 222.2 acres. The Proposed Project includes residential, neighborhood commercial, trails and open space uses. The four development alternatives include only residential, trails and open space uses.

2.1 Land Uses

Proposed Project. As shown in Table 2-1, a total of 705 manufactured single family detached homes and 18,500 square feet of neighborhood commercial uses are included in the Proposed Project. Overall residential development density is estimated at 11.17 dwelling units per net acre. The average residential lot size is about 3,200 square feet and the average valuation of the residential units is $155,000 per unit. Population associated with the Saddleback Meadows Proposed Project is estimated at 1,692 based on a household size of 2.40 persons per dwelling unit. Total employment estimated for the 18,500 square feet of neighborhood commercial uses is 37, which assumes 500 square feet per employee.

Development Alternatives. Four residential development alternatives for the Saddleback Meadows area are also presented in Table 2-1.

Alternative 1 proposes 150 single family detached units on lots averaging 20,000 square feet. The average valuation of the units for Alternative 1 is $440,000 per unit. Estimated population for Alternative 1 is 360.

Alternative 2 includes 100 single family detached units on lots averaging 4,000 square feet. The average valuation of these units is $260,000 per unit. Total population for Alternative 2 is estimated at 240.

Alternative 3 proposes 299 single family detached units on lots averaging 6,400 square feet Valuation is assumed at $390,000 per unit. Alternative 3 population is estimated at 718.

TABLE 2-1
COUNTY OF ORANGE
SADDLEBACK MEADOWS
DEVELOPMENT and INFRASTRUCTURE

	Proposed Project (705 Units)	Alternatives 1 (150 Units)	2 (100 Units)	3 (299 Units)	4 (318 Units)
Residenital Development					
Dwelling units:					
Single family detached	705	150	100	299	140
Attached	0	0	0	0	178
Total Units	705	150	100	299	318
Population	1,692	360	240	718	763
Non-Residential Development					
Square feet	18,500	0	0	0	0
Employment	37	0	0	0	0
Infrastructure					
Signalized intersection	1.00	1.00	1.00	1.00	1.00
Regional trails lineal miles	0.21	0.21	0.21	0.21	0.21
Local trails lineal miles	0.76	0.76	0.76	0.76	0.76

Source: Stanley R. Hoffman Associates, Inc.
The Presidio Group

Alternative 4 includes 318 detached and attached residential units. A mix of 140 single family detached units and 178 attached units are proposed for this Alternative. The lots for the single family units will average 4,000 square feet and the attached units will include clusters of twoplexes and fourplexes. The 140 single family detached units are valued at $260,000 per unit and the 178 attached units are valued at $180,000 per unit. The population for Alternative 4 is estimated at 763.

2.2 Infrastructure

Table 2-1 also presents an overview of the infrastructure associated with the Proposed Project and the development alternatives. One signalized intersection is planned for the project entrance and El Toro Road. Other facilities include an estimated 0.21 lineal miles of regional trails and 0.76 lineal miles of local trails, both of which are assumed to be maintained by the County of Orange.

CHAPTER 3

FISCAL ANALYSIS

This chapter presents an analysis of the projected fiscal impacts from the Saddleback Meadows development plans at project buildout. The analysis focuses on the recurring revenues and costs that impact the Orange County General Fund and other funds, including the Orange County Road Fund, Library District and Harbors, Beaches and Parks Department. Projections are presented in constant 1997 dollars.

3.1 County General Fund

Table 3-1 presents the recurring revenues and costs to the Orange County General Fund for the five Saddleback Meadows development plans. A deficit is projected for the Proposed Project and Alternative 4 (318 units). At buildout of the Proposed Project, recurring revenues are projected at $174.1 thousand, while recurring costs are projected at $181.0 thousand. This results in a projected recurring deficit of $7.5 thousand and a revenue/cost ratio of 0.96. A recurring deficit of $6.3 thousand is projected for Alternative 4, based on projected recurring revenues of $99.6 thousand and projected recurring costs of $80.8 thousand. The revenue/cost ratio for Alternative 4 is projected at 0.92.

A surplus to the County General Fund is projected for Alternative 1(150 units), Alternative 2 (100 units) and Alternative 3 (299 units). The largest recurring surplus is projected for Alternative 3 (299 units). This projected surplus of $23.6 thousand is based on recurring revenues of $99.6 thousand and recurring costs of $76.0 thousand. The projected revenue/cost ratio for Alternative 3 is 1.31. A surplus of $16.1 thousand is projected for Alternative 1 based on projected recurring revenues of $54.2 thousand and projected recurring costs of $38.1 thousand. A revenue/cost ratio of 1.42 is projected for Alternative 1. At buildout of Alternative 2 (100 units) a small surplus of $0.5 thousand is projected. This surplus is based on projected recurring revenues of $26.0 thousand and projected recurring costs of $25.4 thousand. The revenue/cost ratio is 1.02.

TABLE 3-1
COUNTY OF ORANGE
SADDLEBACK MEADOWS
GENERAL FUND RECURRING REVENUES AND COSTS
(In Constant 1997 Dollars)

	Proposed Project (705 Units)	Alternatives 1 (150 Units)	2 (100 Units)	3 (299 Units)	4 (318 Units)
Annual Revenues					
Property tax	$57,749	$34,088	$13,429	$60,228	$35,349
Property transfer tax - turnover	5,512	3,267	1,287	5,772	3,388
Sales and use tax	30,719	0	0	0	0
Franchise fees	13,703	2,876	1,918	5,734	6,098
Forfeitures/penalties	1,335	281	187	560	595
Interest income	2,550	536	358	1,069	1,137
Motor vehicle in-lieu fees	54,567	11,610	7,740	23,143	24,613
Other taxes	3,783	796	530	1,586	1,687
Business licenses	599	0	0	0	0
Vehicle code fines	3,166	666	444	1,328	1,412
Other court fines	445	94	62	187	198
Total Revenues	$174,128	$54,214	$25,955	$99,605	$74,477
Annual Costs					
Sheriff's patrol	$70,553	$14,810	$9,874	$29,522	$31,398
Countywide :					
Public protection	32,350	6,804	4,536	13,563	14,424
Health services	13,587	2,891	1,927	5,762	6,128
Community and social services	14,940	3,179	2,119	6,336	6,739
Environmental resources	650	137	91	273	290
General government	22,166	4,662	3,108	9,293	9,883
Capital improvements	2,465	518	346	1,033	1,099
Insurance reserves and miscellaneous	24,322	5,116	3,410	10,197	10,845
Total Costs	$181,033	$38,117	$25,411	$75,979	$80,808
General Fund Annual Surplus	($6,905)	$16,097	$544	$23,626	($6,331)
Revenue/Cost Ratio	0.96	1.42	1.02	1.31	0 92

Source. Stanley R. Hoffman Associates, Inc.
County of Orange, "Fiscal Methodolgy and Interim Fiscal Impact Guidelines Workbook", November 1, 1996

Recurring Revenues

As Table 3-1 indicates, recurring revenues to the Orange County General Fund include property tax, property transfer tax, sales and use tax, franchise fees, forfeitures/penalties, interest income, motor vehicle in-lieu revenues, other taxes, vehicle code fines and other court fines. The revenues factors utilized in the fiscal analysis are presented in Table A-2 in Appendix A.

Property tax. Revenues accruing to the County General Fund from property tax are projected using an allocation of 5.2 percent of the basic 1 percent property tax levy. The breakdown of the 1 percent property tax levy was obtained from the Orange County Auditor-Controller's Office. The detailed breakdown of the Tax Rate Areas (TRA) is shown Table A-3 in Appendix A. Property tax revenues are based on the assessed valuation of completed development. Residential unit valuations are estimated on a per unit basis and are based on information provided by The Presidio Group.

Property transfer tax. Sales of real property are taxed by the County of Orange at a rate of $1.10 per $1,000 of property value that turns over each year. It is assumed that residential and commercial development will change ownership at an average rate of about 5.0 percent, or on the average of once every 20 years. A consideration rate of 90.0 percent is applied to the valuation of the residential property which reflects the amount of turnover valuation that is estimated to be taxed.

Sales and use tax. The County General Fund receives 1.0 percent of all taxable sales that occur within the unincorporated County area. Taxable sales for neighborhood commercial are projected based on $150 per square foot of retail space.

Use tax is distributed to local jurisdictions by the State Board of Equalization to account for retail sales that are not directly tied to a situs based location. Use tax is projected based on a percentage of direct taxable sales generated. The current rate applied to taxable sales in Orange County is 10.7 percent.

Franchise taxes. Franchise fees are estimated at $7.99 per capita and $4.96 per employee based on total budgeted revenues from franchise fees of $1.76 million and a countywide population of 2,748,640 and a countywide employment 1,296,140.

Forfeitures/penalties. Based on 1996/1997 revenues of $2.69 million and the countywide population and employment estimates, revenues from forfeitures/penalties are projected at $0.78 per capita and $0.41 per employee.

Interest income. Interest income is projected at $1.49 per capita and $0.79 per employee based on total County budgeted revenues from this source of $5.11 million and the countywide population and employment estimates.

Motor vehicle in-lieu fees. Based on the State Controller's allocated amount of $99.90 million to Orange County and the County population of 2,748,640, motor vehicle in-lieu fees are estimated at $35.25 per capita

Other Taxes. The County budgeted amount for other taxes is $7.58, resulting in a projected revenue of $2.21 per capita and $1.17 per employee from this source

Business license revenue Total County revenues from business licenses are estimated at $575.1 thousand. Based on the unincorporated county employment of 35,519, business license revenues are projected at $16.19 per employee.

Vehicle code fines. Vehicle code fines are projected using a factor of $1.85 per capita and $0.98 per employee, based on total budgeted revenues of $6.35 million from this source and the total County population and employment estimates.

Other court fines. Based on countywide population and employment estimates and the total budgeted revenues of $888.0 thousand, factors for other court fines are projected at $0.26 per capita and $0.14 per employee.

Recurring Costs

Table 3-1 also presents recurring costs to the County General Fund for the Saddleback Meadows development plans. Recurring costs to the County of Orange General Fund include sheriff's patrol, and other county net operating costs for public protection; health services; community and social services; environmental resources; general government; capital improvements; and insurance reserves and miscellaneous.

Sheriff's patrol. Sheriff protection costs are projected based on the net County cost of $11.13 million and Orange County Projections for unincorporated population of 198,327 and unincorporated employment of 35,519. Based on these estimates the cost factors for sheriff's patrol are projected at $41.14 per capita and $25.53 per employee.

Countywide costs. Countywide costs are associated with functions provided to all residents, and in selected cases all employees, in the County whether they reside in incorporated or unincorporated areas. The net County cost for each countywide service is based on the November 1, 1996 Orange County Fiscal Methodology and Interim Fiscal Impact Guidelines Workbook.

Public protection includes services provided by the District Attorney, Grand Jury, Marshall, Probation, Public Defender, Emergency Management, Institutional Labor, Pedestrian Crossing Guards, Detention Release, Juvenile Justice Commission and Alternative Defense. Costs factors for public protection are $18.90 per capita and $10.02 per employee.

Health services costs are for the Health Care Agency. Health services costs are projected based on a factor of $5.03 per capita.

Community and social services includes services provided by the Community Services Agency, Domestic Violence Programs, Alternate Dispute Resolution, Social Services Agency, Aid to Dependent Families with Children (ADFC), Foster Care, Aid to Refugees, Case Data System and General Relief. Costs for these services are projected based on a factor of $8.83 per capita.

Environmental resources includes services provided by the Local Agency Formation Commission (LAFCO) and the Agricultural Commissioner. Environmental resources costs are projected based on $0.38 per capita and $0.20 per employee.

General government includes the numerous services associated with the operations of the County government. These include Assessor, Auditor-Controller, Board of Supervisors, Clerk of the Board, County Executive Office, Advocacy/Legislation, Protocol Office, County Counsel, Registration and Elections, General Services Agency, Data Systems, Utilities, Human Resources, Clerk-Recorder, Treasurer-Tax Collector, County Clerk and Internal Audit. General government costs are projected based on factors of $12.95 per capita and $6.87 per employee.

Capital Improvements includes minor Capital Projects, Data Systems Development and Real Property Leases. Costs are projected at $1.44 per capita and $0.76 per employee.

Insurance reserves and miscellaneous includes Miscellaneous Costs; Professional Consultants Recovery; Employee Benefits; Employee Retirement; Interest on Notes and Checks; and Provision for Contingencies. Costs for this category are projected based on factors of $14.21 per capita and $7.54 per employee.

3.2 County Road Fund

Projected recurring County Road Fund revenues and costs from the Saddleback Meadows development plans are presented in Table 3-2. At buildout, recurring deficits are projected for Alternative 1 (150 units) and Alternative 2 (100 units). A recurring deficit of $2.1 thousand is projected for Alternative 1 based on projected recurring revenues of $2.9 thousand and projected recurring costs of $5.0 thousand. A revenue/costs ratio of 0.57 is projected for Alternative 1. A recurring deficit of $3.1 thousand is projected for Alternative 2 (100 units) based on projected recurring revenues of $1.9 thousand and recurring costs of $5.0 thousand.

Recurring surpluses to the County Road Fund are projected for the Proposed Project, Alternative 4 (318 units) and Alternative 3 (299 units). The largest recurring surplus is projected at buildout of the Proposed Project. A recurring surplus of $8.5 thousand is projected for the Proposed Project based on recurring revenues of $13.5 thousand and recurring costs of $5.0 thousand. A revenue/cost ratio of 2.69 is projected for the Proposed Project. The next largest recurring surplus is projected for Alternative 4 (318 units). The projected surplus for this Alternative is $1.1 thousand based on projected recurring revenues of $6.1 thousand and recurring costs of $5.0 thousand. A revenue/cost ratio of 1.22 is projected for Alternative 4. A recurring surplus of $0.7 thousand is

TABLE 3-2
COUNTY OF ORANGE
SADDLEBACK MEADOWS
ROAD FUND RECURRNG REVENUES AND COSTS
(In Constant 1997 Dollars)

	Proposed Project (705 Units)	Alternatives 1 (150 Units)	2 (100 Units)	3 (299 Units)	4 (318 Units)
Annual Revenues					
State gasoline tax	$11,624	$2,473	$1,649	$4,930	$5,243
Licenses, permits and franchises	305	65	43	129	137
Use of money and property	1,540	328	218	653	695
Total Revenues	$13,468	$2,866	$1,910	$5,712	$6,075
Annual Costs					
Traffic signal operations	$5,000	$5,000	$5,000	$5,000	$5,000
Annual Surplus or (Deficit)	$8,468	($2,134)	($3,090)	$712	$1,075
Revenue/Cost Ratio	2.69	0.57	0.38	1.14	1.22

Source: Stanley R. Hoffman Associates, Inc.
County of Orange, "Fiscal Methodolgy and Interim Fiscal Impact Gudelines Workbook", November 1, 1996.

projected for Alternative 3 (299 units) based on projected recurring revenues of $5.7 thousand and recurring costs of $5.0 thousand. A revenue/cost ratio of 1.14 is projected for Alternative 3.

Recurring Revenues

Recurring revenues to the County Road Fund are projected for state gasoline tax; licenses, permits and franchises; and revenues from the use of money and property. The revenue factors for the County Road Fund are presented in Appendix Table A-2

State gasoline tax. Orange County receives state gasoline tax from Sections 2104, 2105 and 2106. Based on the Orange County Fiscal Methodology and Interim Fiscal Impact Guidelines Workbook the state gasoline tax revenues are projected at $3.28 per capita for Section 2104, $1.50 per capita for Section 2105 and $2.09 per capita for Section 2106

Licenses, permits and franchises. The County Road Fund is budgeted to receive total revenues from these sources of $500.6 thousand. Based on the County population of 2,748,640 these revenues are projected at $0.18 per capita

Use of money and property. These revenues are projected at $0.91 per capita based on total budgeted revenues of $2.49 million and the total County population.

Recurring Costs

No local roads maintenance costs are associated with the Saddleback Meadows development, since all local roads are assumed to be privately maintained through the homeowners association. Annual traffic signal operation costs to the County are estimated at $5,000 per signalized intersection based on the County of Orange Fiscal Methodology and Interim Fiscal Guidelines Workbook.

3.3 County Library District

Table 3-3 presents the projected recurring Library District revenues and costs for the Saddleback Meadows development plans. At project buildout, annual recurring deficits

TABLE 3-3
COUNTY OF ORANGE
SADDLEBACK MEADOWS
LIBRARY DISTRICT RECURRING REVENUES AND COSTS
(In Constant 1997 Dollars)

	Proposed Project (705 Units)	Alternatives 1 (150 Units)	2 (100 Units)	3 (299 Units)	4 (318 Units)
Annual Revenues					
Property Tax	$15,611	$9,215	$3,630	$16,281	$9,556
Use of money and property	118	25	17	50	53
Intergovernmental revenues	609	130	86	258	275
Charges for services	2,673	569	379	1,134	1,206
Miscellaneous revenues	88	14	10	29	31
Total Revenues	$19,080	$9,953	$4,122	$17,752	$11,120
Annual Costs					
Regional library costs	$25,921	$5,515	$3,677	$10,994	$11,692
Annual Surplus or (Deficit)	($6,842)	$4,438	$445	$6,759	($572)
Revenue/Cost Ratio	0.74	1.80	1.12	1.61	0.95

Source: Stanley R Hoffman Associates, Inc.
County of Orange, "Fiscal Methodolgy and Interim Fiscal Impact Guidelines Workbook", November 1, 1996

are projected for the Proposed Project and Alternative 4 (318 units). The recurring deficit for the Proposed Project is projected at $6.8 thousand based on projected recurring revenues of $19.1 thousand and projected recurring costs of $25.9 thousand. The projected revenue/cost ratio for the Proposed Project is 0.74. Alternative 4 (318 units) is projected to have an annual recurring deficit of $0.6 thousand based on projected recurring revenues of $11.1 thousand and projected costs of $11.7 thousand. The revenue/cost ratio for Alternative 4 is 0.95.

Annual recurring surpluses to the County Library District are projected for Alternative 1 (150 units), Alternative 2 (100 units) and Alternative 3 (299 units). The largest recurring surplus is projected for Alternative 3 (299 units) The projected surplus for Alternative 3 is $6 8 thousand based on projected recurring revenues of $17 8 thousand and projected recurring costs of $11.0 thousand. The revenue/cost ratio for Alternative 3 is a projected 1.61. The next largest recurring surplus is projected for Alternative 1 (150 units). This surplus of $4.4 thousand is based on projected recurring revenues of $10.0 thousand and projected recurring costs of $5.5 thousand. The revenue/cost ratio for Alternative 1 is 1.80. Alternative 2 (100 units) is projected to have a recurring surplus of $0.5 thousand based on recurring revenues of $4.1 thousand and recurring costs of $3.7 thousand. The projected revenue/costs ratio for Alternative 2 is 1.12.

Recurring Reveneus

Annual recurring revenues to the Library District include propert tax; use of money and property; intergovernmental revenues; charges for services; and miscellaneous revenues.

Property tax. The Orange County Library District's share of the basic 1.0 percent property tax levy is 1.3962 percent for the TRA in which the Saddleback Meadows project is located

Use of money and property Based on the budgeted amount of $2.14 million and the County Library service population of 1,351,905, this category is projected using a factor of $0 07 per capita

Intergovernmental revenues. These revenues are estimated to total $491.9 thousand. Based on the Library District service population, intergovernmental revenues are projected at $0.36 per capita.

Charges for services. Based on the Library service population and a budgeted amount of $2.14 million, charges for services are projected based on a factor of $1.58 per capita.

Miscellaneous revenues. These revenues are estimated to total $56.3 thousand. Based on the Library service population, miscellaneous revenues are projected at $0.04 per capita.

Recurring Costs

Current operations and maintenance costs of providing libarary service are calculated in the Orange County Fiscal Methodology and Interim Fiscal Impact Guidelines Workbook at $15.32 per capita.

3.4 County Harbors, Beaches and Parks

The fiscal impacts to the County Harbors, Beaches and Parks Department from the five development plans for Saddleback Meadows are presented in Table 3-4. County Harbors, Beaches and Parks Department is projected to have an annual recurring deficit from Alternative 2 (100 units) and annual recurring surpluses from all other development plan. The annual deficit of $2.9 thousand projected for Alternative 2 is based on projected recurring revenues of $3.3 thousand and annual recurring costs of $6.2 thousand. The revenue/cost ratio for Alternative 2 is projected at 0.54.

The largest recurring surplus to the Harbors, Beaches and Parks Department is projected for Alternative 3 (299 units). The recurring surplus of $8.7 thousand for Alternative 3 is based on projected recurring revenues of $14.9 thousand and projected recurring costs of $6.2 thousand. The projected revenue/cost ratio for Alternative 3 is 2.41. The next largest recurring surplus is projected for the Proposed Project (750 units), at $8.1 thousand This surplus is based on projected recurring revenues of $14.3 thousand and

TABLE 3-4
COUNTY OF ORANGE
SADDLEBACK MEADOWS
HARBORS, BEACHES AND PARKS RECURRING REVENUES AND COSTS
(In Constant 1996 Dollars)

	Proposed Project (705 Units)	Alternatives 1 (150 Units)	2 (100 Units)	3 (299 Units)	4 (318 Units)
Annual Revenues					
Property Tax	$14,312	$8,448	$3,328	$14,927	$8,761
Annual Costs					
Regional Trails Maintenance	$1,333	$1,333	$1,333	$1,333	$1,333
Local Trails Maintenance	4,848	4,848	4,848	4,848	4,848
Total Costs	$6,182	$6,182	$6,182	$6,182	$6,182
Annual Surplus or (Deficit)	$8,130	$2,266	($2,854)	$8,745	$2,579
Revenue/Cost Ratio	2.32	1.37	0.54	2 41	1.42

Source: Stanley R. Hoffman Associates, Inc.
County of Orange, "Fiscal Methodolgy and Interim Fiscal Impact Guidelines Workbook", November 1, 1996

projected recurring costs of $6.2 thousand. The revenue/costs ratio is projected at 2.32 for the Proposed Project. Alternatives 1 (150 units) and 4 (318 units) are projected to have similar recuring surpluses of $2.3 thousand and $2.6 thousand, respectively. Recurring revenues for Alternative 1 are projected at $8.4 thousand while recurring revenues for Alternative 4 are projected at $8.8 thousand. The recurring costs are the same for both alternatives, at a projected $6.2 thousand. The projected revenue/cost ratios are 1.37 for Alterantive 1 and 1.42 for Alternative 4.

Recurring Revenues

The only recurring revenue projected for the Harbors, Beaches and Parks Department is property tax. The Department's share of the basic 1.0 percent property tax levy is 1.280 percent, based on the tax rate area in which Saddleback Meadows is located.

Recurring Costs

The only recurring cost to the Department from the development plans for Saddleback Meadows are for maintenance of the regional and local hiking trails. These costs are projected based on a factor of $6,400 per lineal mile.

APPENDIX A

LAND USE, MARKET AND FISCAL FACTORS

TABLE A-1
COUNTY OF ORANGE
SADDLEBACK MEADOWS
LAND USE AND MARKET FACTORS

(In Constant 1997 Dollars)

FACTOR	EXPLANATION
RESIDENTIAL DEVELOPMENT	
Single Family Detached, Manufactured - Proposed Project	
11.17	Dwelling units per net acre
$155,000	Total valuation per unit
2.40	Population per unit
Single Family Detached - Alternative 1 (20,000 square foot lots)	
2.18	Dwelling units per net acre
$440,000	Total valuation per unit
2.40	Population per unit
Single Family Detached - Alternatives 2 and 4 (4,000 square foot lots)	
10.89	Dwelling units per net acre
$260,000	Total valuation per unit
2.40	Population per unit
Single Family Detached - Alternative 3 (6,400 square foot lots)	
6.81	Dwelling units per net acre
$390,000	Total valuation per unit
2.40	Population per unit
Single Family Attached - Alternative 4 (twoplexes and fourplexes)	
17.42	Dwelling units per net acre
$180,000	Total valuation per unit
2.40	Population per unit
NON-RESIDENTIAL DEVELOPMENT	
Neighborhood Commercial	
0.25	Floor area ratio
$8.00	Land value per site square foot
$80.00	Improvement valuation per building square foot
$25.00	Unsecured valuation per buiding square foot
$150.00	Taxable sales per square foot
500	Square feet per employee

Source: Stanley R. Hoffman Associates, Inc.
The Presidio Group

TABLE A-2
COUNTY OF ORANGE
SADDLEBACK MEADOWS
REVENUE FACTORS

(In Constant 1997 Dollars)

FACTOR	EXPLANATION
Taxes	
0.01	Property tax rate, total
0.110%	Property transfer tax rate
90.00%	Consideration rate (for transfer tax)
5.0%	Turnover rates - Residential and Commercial
County General Fund Revenues	
5.1649%	Orange County General Fund TRA allocation
0.011	Sales and use tax factor
$7.99	Franchise fees per capita
$4.96	Franchise fees per employee
$0.78	Forfeitures/penalties per capita
$0.41	Forfeitures/penalties per employee
$1.49	Interest income per capita
$0.79	Interest income per employee
$32.25	Motor vehicle in-lieu per capita
$2.21	Other taxes per capita
$1.17	Other taxes per employee
$16.19	Business licenses per employee
$1.85	Vehicle code fines per capita
$0.98	Vehicle code fines per employee
$0.26	Other court fines per capita
$0.14	Other court fines per employee
County Road Fund Revenues	
$3.28	State gasoline tax per capita - Section 2104
$1.50	State gasoline tax per capita - Section 2105
$2.09	State gasoline tax per capita - Section 2106
$0.18	Road fund licenses, permits and franchises per capita
$0.91	Road fund revenues from use of money and property per capita
County Library District Revenues	
1.3962%	Orange County Library District TRA allocation
$0.07	Use of money and property per capita
$0.36	Intergovernmental revenues per capita
$1.58	Charges for sevices per capita
$0.04	Miscellaneous revenues per capita
County Harbors, Beaches and Parks Revenues	
1.2800%	Orange County Harbors, Beaches and Parks TRA allocation

Source: Stanley R Hoffman Associates, Inc
County of Orange, "Fiscal Methodolgy and Interim Fiscal Impact Guidelines Workbook", November 1, 1996.

TABLE A-3
COUNTY OF ORANGE
SADDLEBACK MEADOWS
DETAILED TRA ALLOCATIONS

	Fund[1]	Description	TRA Number 88-233
	0084-01	Trabuco Canyon Water District	0.11874661752
	0088-01	Orange Co. Transportation Authority	0.00235002528
	0100-01	Orange Co. General Fund	0.05164893727
	1201-01	Orange Co. Library District	0.01396215073
	1211-01	Orange Co. Fire Department	0.09412077887
*	2131-01	Orange Co. General Fund	0.08567540765
*	2131-01	Orange Co. Library District	0.01605705677
*	2131-01	Orange Co. Cemetery District	0.00061285248
*	2131-01	Orange Co. Fire Department	(0.00533671878)
*	2131-01	Orange Co. Transit District	0.00156668353
*	2131-01	Orange Co. Flood Control District	0.00680285457
*	2131-01	Orange Co. Harbors, Beaches and Parks	0.00244861960
*	2131-01	Orange Co. Vector Control District	0.00076577061
*	2131-01	Trabuco Canyon Water District	0.11259711110
	4001-01	Orange Co. Flood Control District	0.01655952799
	4051-01	Orange Co. Harbors, Beaches and Parks	0.01280004514
	5321-01	Orange Co. Vector Control District	0.00093508141
	5541-01	Orange Co. Cemetry District	0.00041625418
	7481-01	Saddleback CC	0.07411636895
	7901-01	Saddleback Valley Unified	0.37949577011
	8841-01	Orange Co. Dept. of Education	0.01365880502
		Total	1.00000000000

Notes: 1. The codes indicated with an asterisk represent that funds' transfer to ERAF.

Source: Stanley R. Hoffman Associates, Inc.
County of Orange, Auditor-Controller's Office

TABLE A-4
COUNTY OF ORANGE
SADDLEBACK MEADOWS
COST FACTORS

(In Constant 1997 Dollars)

FACTOR	EXPLANATION
County General Fund Costs	
Municipal-type costs:	
$41.14	Sheriff's patrol costs per capita
$25.53	Sheriff's patrol costs per employee
Countywide costs:	
$18.90	Public protection costs per capita
$10.02	Public protection costs per employee
$8.03	Health services costs per capita
$8.83	Community and social services costs per capita
$0.38	Environmental resources costs per capita
$0.20	Environmental resources costs per employee
$12.95	General government and services costs per capita
$6.87	General government and services costs per employee
$1.44	Capital improvement costs per capita
$0.76	Capital improvement costs per employee
$14.21	Insurance reserves and miscellaneous costs per capita
$7.54	Insurance reserves and miscellaneous costs per employee
County Road Fund Costs	
$5,000	Cost per signalized intersection
County Library District Costs	
$15.32	Regional library costs per capita
County Harbors, Beaches and Parks Costs	
$6,400	Annual trails maintenance costs per lineal mile

Source: Stanley R. Hoffman Associates, Inc.
County of Orange, "Fiscal Methodolgy and Interim Fiscal Impact Guidelines Workbook", November 1, 1996.

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

NO. 566

STATE CLEARINGHOUSE NO. 96121072

SADDLEBACK MEADOWS

RECORDED TRACT MAP 10692

GRADING APPLICATION GA960048

VOL. 2

Orange County
Planning & Development Services Department

June 1997

URBAN VISION

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT NO. 566

State Clearinghouse No. 96121072

SADDLEBACK MEADOWS
Recorded Tract Map No. 10692
GA 960048

Lead Agency:
COUNTY OF ORANGE
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Environmental & Project Planning Services Div.
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June 1997

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ORGANIZATIONS AND PERSONS CONSULTED

APPENDIX A - ORGANIZATIONS AND PERSONS CONSULTED

Orange County Planning and Development Services

- Raymond Brantley, Chief, Environmental Planning, Private and Capital Projects
- Frank McGill, Chief, LPD, Consistency Review Section
- Bill Grieman, Planner, Private/Capital Projects
- Mike Welborn, Planner, APD
- Bob Aldrich, Chief, APD, Element Planning
- J. Golding, Manager, Advance Planning Division
- T. Neely, Zoning Administrator
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- P Wang, Chief, Acoustics Section
- I. Ochoa, Manager, Traffic Engineering Division
- R. Peterson, Manager, Transportation Planning
- H. Persaud, Chief, Transportation Planning

Orange County Fire Authority

- Page Dougherty, Senior Fire Safety Specialist

Trabuco Canyon Water District

- Steve Andrews, Consulting Engineer

Saddleback Valley Unified School District

- Mary Lou Smith

Waste Management of Orange County

- Christine Upton

Integrated Waste Management Department of Orange County

- Samantha Atkinson

Cox Commuications

- Peter Agnew, New Development Department

Southern California Edison

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The Gas Company

- Bob Warth

Orange County Public Library System

- Dave Samkey, Financial Manager, Orange County Public Library

Orange County Sheriff - Coroner's Department

- Lt Hector Rivera

Santa Margarita Water District

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- Kim Jensen, Word Precessing Manager
- Eric Ruby, Planning Advisor

Hunsaker & Associates - Infrastructure Engineering

Forma - Land Planning (Visual Simulations)

Sweetwater Environmental Biologists, Inc - Biologist

G.A Nicoll & Associates - Geotechnical Engineering

RMW Paleo Associates - Cultural Resources

Robert Kahn, John Kain Associates - Traffic Engineering

Rivertech, Inc. - Hydrology

Giroux & Associates - Noise/Air

McCollum & Associates - Regulatory Compliance

Ross & Scott - Legal

Michael E. Madden - Land Planner (Alternatives)

APPENDIX B
REFERENCES

APPENDIX B - REFERENCES

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Aerial Photographs

Soil Conservation Service, December 12, 1952. Flight AXK-3K, Exposures 113 and 114, scale: 1 inch = 2000 feet

APPENDIX C
NOTICE OF PREPARATION (NOP)

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072 NOP Commentators Public Agencies	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Jan. 27, 1997 1 City of Mission Viejo Clint Sherrod, Community Development Director et. al													X	X														X			X	
Jan 28, 1997 2. County of Orange Johnnie Earnest, Chief Geotechnical/ Grading Plan Check			X		X					X																					
Jan 14, 1997 3. County of Orange Kevin H. Kondru, Manager IWMD/ Engineering Support Services																						X										
Jan. 9, 1997 4 County of Orange Joan S. Golding, Manager P&DS/APD							X					X				X	X														X	

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072 NOP Commentators Public Agencies	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Jan 8, 1997 5. County of Orange Ignacio Ochoa Traffic Engineering	X													X																		
Jan 17, 1997 6. County of Orange Fire Authority Laura Blaul, Deputy Fire Marshall													X		X	X																
Jan 10, 1997 7. So Calif. Association of Governments Viviane Docre-Boulos, Manager Intergovernmental Review						X	X	X		X		X		X						X						X	X		X			
Jan 10, 1997 8. So. Calif. Gas Company Robert S. Warth, Technical Supervisor																			X													

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072 NOP Commentators Public Agencies	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Jan. 30, 1997 9. U S Fish & Wildlife Service Gail Kobetich, Field Supervisor		X		X	X			X		X			X											X				X		X		
Jan 30, 1997 10 State of California Department of Fish and Game/ Ron Rempel, NCCP Program Manager CDFG		X		X	X			X		X			X											X				X		X		
Jan 21, 1997 11 State of California Department of Transportation Robert Joseph, Chief Advance Planning Branch																																X
Dec 31, 1997 12 State of California Governor's Office of Planning & Research Antero A. Rivasplata, Chief, State Clearinghouse																														X		

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072 NOP Commentators Public Agencies	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Jan 22, 1997 13. Trabuco Canyon Water District Bruce Boner, General Manager																																X
Jan. 2, 1997 14 Transportation Corridor Agencies Steve Letterly, Director Environmental Services																																X
Jan. 7, 1997 15. United States Marine Corps D P Pender, Colonel Community Plans and Liaison Officer																																X

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072 NOP Commentators Private Citizens	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Jan 3, 1997 1 St Michael's Abbey Rutan & Tucker LLP David B. Cosgrov	X		X		X	X		X	X	X		X		X			X	X						X		X		X		X		
Jan. 20, 1997 2 Vedanta Society of So. Calif Ramakrishna Monastery Richard Jennings			X		X				X	X	X			X												X			X			
Jan. 27, 1997 3. Vedanta Society of So Calif Charles Mitchell & Associates	X				X							X				X	X	X	X												X	

PLANNING & DEVELOPMENT SERVICES DEPARTMENT
P.O. Box 4048
SANTA ANA, CALIFORNIA 92702-4048

(REVISED)

NOTICE OF PREPARATION

FILED

FEB 05 1997

GARY L. GRANVILLE, Clerk-Recorder
By _____ DEPUTY

Date: February 6, 1997

Subject: Revised Notice of Intent to Prepare A Draft Environmental Impact Report # 566

Project Title: Saddleback Meadows Development

Applicant: California Quartet, Inc.

The Orange County Planning & Development Services Department has conducted an Initial Study for the subject project and has determined that an Environmental Impact Report is necessary. The County of Orange will be the Lead Agency for the subject project and will prepare the EIR. In order for the concerns of your agency to be incorporated into the Draft EIR, we need to know the views of your agency as to the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency must consider the EIR prepared by the County of Orange when considering your permit or approval for the project. The project description, location, and an analysis indicating the probable environmental effects of the proposed action are contained in the attached materials.

Pursuant to Section 21080.4 of CEQA, your response must be sent as soon as possible but not later than 30 days after receipt of this notice.

If any significant changes in the proposed project occur, we will advise you. If you have need for additional information contact Raymond H.C. Brantley/William Grieman of the Environmental & Project Planning Division at 834-5550.

Submitted by:

Raymond H.C. Brantley

Attachment: Initial Study

POSTED

FEB 05 1997

GARY L. GRANVILLE, Clerk-Recorder
By _____ DEPUTY

NOTICE OF INTENT TO PREPARE (NOP)
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT EIR (566)
FOR THE SADDLEBACK MEADOWS DEVELOPMENT project
GRADING APPLICATION GA960048
TRACT MAP 10692

I. INTRODUCTION/BACKGROUND

Pursuant to Public Resources Code Section 21165, the County of Orange is the Lead Agency responsible for preparing a Subsequent Environmental Impact Report (EIR) addressing potential impacts associated with the proposed Saddleback Meadows project located approximately ½-mile from the El Toro Road/Live Oak Canyon Road intersection in the Foothill/Trabuco Specific Plan area of unincorporated Orange Count. Section 15162 of the California Environmental Quality Act (CEQA) Gudelines describes a Subsequent EIR which will be the type of EIR prepared for the proposed project. According to this Section, a Subsequent EIR shall be prepared when subsequent changes are proposed in the project which will require important revisions of the previous EIR due to the involvement of new significant environmental impacts not considered in the previous EIR.

Subsequent EIR 566 will be based upon EIR 059, certified in May, 1978, FEIR 203, certified January 9, 1980, and FEIR 531, certified December 10, 1991. It will also incorporate relevant portions of DEIR 561 proposed for the earlier project. The currently proposed project was also evaluated as Alternative 2 in EIR 561

II. PROJECT DESCRIPTION

The project proposes the phased development of 705 manufactured single family housing units and a 1.7-acre, neighborhood commercial center and associated infrastructure, on a 222.23-acre site on the easterly side of El Toro Road. The gross residential density is 3 17 du/ac, with minimum lot sizes of 2,630 square feet. Ten (10%) percent of the project site is proposed to remain in open space. In addition to the residential component, the project also proposes a private park site, regional riding/hiking trail connections, and construction of a water tank site dedicated to, and accepted by, the Trabuco Canyon Water District. Project implementation requires the approval of a grading plan. The grading permit application (GA960048) is based on tract 10692, which was recorded December 16, 1988.

The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor Specific Plan approximately ½-mile southerly of the El Toro Road/Live Oak Canyon Road intersection. Implementation of the proposed project would directly effect 158.0-acres of the project site, not including remedial grading and fuel modification requirement. Total development footprint area would affect 90% or 200 acres of the project site. In addition to onsite grading 2.04-acres of offsite area would be effected for access road construction and remedial grading.

A total of 3.7 million cubic yards of conventional grading and 10 million cubic yards of remedial grading would be required to implement the project.

The following table summarizes major features for the proposed project and current surrounding residential developments:

SURROUNDING PROJECT COMPARISON SUMMARY

FEATURE	PROPOSED PROJECT	PORTOLA HILLS	HIDDEN HILLS/ HIDDEN RIDGE
Acreage	222.23	1,399	74
Dwelling Units	705	2,200	230
Minimum Lot Size	2,630 sf	3,000 sf	5,000 sf
% Open Space	10%	39%	31%
Gross Density	3 17 du/ac	2.2 du/ac	3 1 du/ac
Conventional Grading/Lot	4,500 cy	7,450 cy	5,850 cy
Wildlife Corridor	No	No	No
Regional Trail Connections	Yes	Yes	Yes

III. SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS

An Initial Study has been completed analyzing the proposed project pursuant to Section 15063 of the CEQA Guidelines It has been determined that there is substantial evidence that significant effects may occur in the topical areas of Land Use; Geophysical, Water; Transportation; Air Quality; Noise; Biological Resources; Aesthetics, Cultural/Scientific Resources; Recreation; Hazards and Cumulative Impacts Areas that revealed less than or no significant effects were. Population and Housing; Energy and Minerals; Public Services; and Utilities and Service Systems. For more detail consult the Initial Study analysis.

IV. ALTERNATIVES TO BE EVALUATED IN THE DRAFT EIR

The EIR will include a range of Alternatives which fulfill the following California Environmental Quality Act (CEQA) criteria outlined in Section 15126(d) of the CEQA Guidelines

A. Alternatives Which Achieve the Project's Objectives Section 15126(d) requires a range of Alternatives which could feasibly achieve the project's objectives.

B. Alternatives Which Eliminate or Reduce Project Impacts: CEQA Guidelines Section 15126(d)(3) requires that the Alternatives Section of an EIR shall focus on those alternatives capable of eliminating or reducing any significant adverse impacts on the environment caused by the project.

C Rule of Reason: Section 15126(d)(5) of the CEQA Guidelines requires that the range of Alternatives in an EIR be governed by the "rule of Reason" which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice by the decision-maker.

Proposed Alternatives

The Lead Agency has determined that the following Alternatives to the proposed project are reasonable alternatives to be discussed in EIR 566 in compliance with Section 15126(d) of the Guidelines:

1. No Project/ No Development Alternative - This alternative would leave the proposed site in its existing condition.

2. FTSP EIR 531 Staff Alternative A - This alternative would allow 150 sf units with a minimum lot size of 20,000 square feet.

3. FTSP EIR 531 Staff Alternative B - This alternative would reduce the number of dwelling units on the project site to no more than 100 on approximately 30 acres.

4. 299 Unit Single Family Housing Alternative - This alternative is the proposed project recommended by the OCEMA in preparation of EIR 561.

5. Cluster/Reduced Development Footprint - This alternative evaluates a 318 detached and attached unit project within a reduced development footprint.

V. MANDATORY FINDINGS

A. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Yes. The proposed project has the potential of significantly affecting the range of wildlife that may currently use this property as a wildlife movement corridor.

B. Does the project have the potential to achieve the short-term environmental goals to the disadvantage of the long-term environmental goals?

Yes. The project has the potential to affect the NCCP related wildlife corridor planning for this area.

C. Does the project have possible environmental effects which are individually limited but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)

Yes The proposed project could have significant cumulative effects on the air quality, traffic and biological resources of the area

D Does the project have environmental effects which will cause substantial adverse effects on human

beings, either directly or indirectly? *Yes. project implementation could have substantial adverse effects on human beings in terms of noise, air quality and geotechnical hazards. These potentially significant impacts shall be analyzed under each topical area of the EIR.*

VI. INITIAL STUDY

The Initial Study analysis is included in this NOP for review

DETERMINATION

Based on the Initial Study above, the proposed project may have a significant effect on the environment which has not been analyzed in any previous CEQA document. Therefore an Environmental Impact Report (EIR) is required.

CONTACT

Raymond H.C. Brantley, Chief
EMA/Environmental & Project Planning Division
Private/Capital Projects Section
(714) 834-3763

PROJECT BACKGROUND/CHRONOLOGY

The current proposed project is the culmination of planning efforts with the County of Orange over a seventeen (17) year period. The following Chronology identifies key dates in the project's evolution:

SADDLEBACK MEADOWS PROJECT CHRONOLOGY

DATE	PROJECT RELATED EVENT
August 8, 1978	- The Orange County Board of Supervisors adopted GPA 78-1, Item 4, the "Saddleback Meadows Mobile Home Subdivision" which granted a change in the Land Use Element designation for the site from 5 4 Other Open Space to 1.22 Medium Low Density Residential and 2.1 Local Commercial. Maximum number set at 617 dwelling units. Triggering mechanism to revert land use designation to original after 2 years commenced. EIR 059 certified.
February 6, 1979	- Board adopted Site Plan conditions as requirements for implementing the subject amendment. Draft EIR 059, which was the CEQA documentation for the site plan, identified major grading impacts as project related impacts, these impacts were also shown on grading plans for Tentative Tract Map TT10692, prepared for the project.
March 7, 1979	- Zone change application, Tentative Tract Map and Initial Study requests submitted to County for a maximum of 617 mobile home units and a neighborhood convenience commercial center on the project site.
March 29, 1979	- Determination of requirement for an EIR transmitted to applicant by Environmental Services Division (ESD).
June 5, 1979	- Appeal of EIR requirement by Cliff Russell, representing Worthington/McNiff.
June 11, 1979	- The Orange County Planning Commission denied the appeal Supplemental EIR required for proposed 617 unit tentative tract map
June 25, 1979	- Zone Change 79-24 submitted to County The project proposed at this time consisted of 617 units
August 7, 1979	- Revised Tentative Tract Map was submitted to the County for Screencheck reflecting some design modifications requested by County staff as well as an increase of 145 dwelling units added to the project by the proponent.
August 17, 1979	- Revised Tentative Tract Map and Supplemental Environmental Information submitted to Environmental Services (ESD). Submittal raised many questions with ESD in that the project had been revised substantially with a 23.5% increase in total number of units and intensity of land use.

Saddleback Meadows Project Chronology (Cont'd)

DATE	PROJECT RELATED EVENT
August 21, 1979	- Revised Zone Change 79-24 received by the County reflecting the revised project proposal of 762 units, with 25% in affordable range.
November 28, 1979	- Revised TT10692 filed with Environmental Management Agency depicting 727 lots, including 714 residential lots, 1 commercial lot and several open space and utility lots.
December 13, 1979	- TT10692 approved by the Planning Commission with recommendation that Zone Change ZC79-24 be approved by Board of Supervisors
January 9, 1980	- Saddleback Meadows properties placed in the PC "Planned Community" District and adopted by Board of Supervisors, Ordinance Number 3177. Final EIR 203 certified.
October 28, 1981	- Two year extension of time to record to expire December 12, 1983 approved by the Subdivision Committee.
December 7, 1981	- Appeal to deny two year extension of time affirmed by Planning Commission. One year extension of time to record to expire December 12, 1982 granted by Planning Commission
November 17, 1982	- An additional one year extension of time to record to expire December 12, 1983 approved by Subdivision Committee.
July 13, 1983	- Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance Number 3398 (ZC82-63P).
October 26, 1983	- Third one year extension of time to record approved.
June 13, 1984	- Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance 3486 (ZC84-3P)
October 24, 1984	- 589-day stay of time in which to record a final tract map approved by Subdivision Committee. Expiration date extended to July 24, 1986.
July 24, 1986	- Water district could not provide sewer service, recordation not allowed until sewer capacity available.
December 16, 1988	- Tract Map 10692 recorded.
December 10, 1991	- Foothill/Trabuco Specific Plan approved and Final EIR 531 certified by Orange County Board of Supervisors The Specific Plan incorporated the Saddleback Meadows Planned Community Regulations as the Bridlewood Residential District.

Saddleback Meadows Project Chronology (Cont'd)

DATE	PROJECT RELATED EVENT
April, 1994	- Grading Permit Application GA940031 submitted for Phase I, Grading (98.3 acres) of the site.
August, 1994	- Initial Study completed and Environmental Impact Report Determination Letter is issued.
August 11, 1994	- Letter of Appeal filed with County
November, 1994	- Appeal Hearing postponed to January 7, 1995, then to January 31, 1995
January 31, 1995	- Applicant withdraws appeal Planning Commission directs applicant to develop a more compatible project in response to public testimony, staff concerns, and Planning Commission's direction.
July 27, 1996	- Revised 318-unit Site Development Plan, zone change and area plan submitted to County of Orange
July 30, 1996	- Orange County Planning Commission recommended EIR 561 for certification and recommended applications for Vesting Tentative Tract Map No. 15230, area plan 95-7 and zone change 95.5 be denied.
August 11, 1995	- Notice of Preparation circulated for EIR 561.
October 22, 1996	- Board of Supervisors denied project and did not certify EIR 561.
December 3, 1996	- Applicant submitted application for Phase I Grading Plan for 705 unit Tract 10692 (GA960048)
December 16, 1996	- EMA determined that a Subsequent EIR is required to evaluate the effects of the grading application.

CEQA CHECKLIST DISCUSSION

INITIAL STUDY PROCEDURE

This Initial Study has been conducted pursuant to Section 15060 of the State CEQA Guidelines and the County of Orange CEQA procedures. It includes a detailed review and analysis of the project in light of the following documents, plans, policies and guidelines:

- CEQA Statute and Guidelines,
- Draft EIR 561/Response To Comments
- Final EIR 059, Certified on August 8, 1978;
- Final EIR 203, Certified on January 9, 1980;
- Original Grading Plans,
- Foothill-Trabuco Specific Plan,
- Final EIR 531, Certified on December 10, 1991,
- Tentative Tract Map TT10692/Recorded Final Tract Map 10692,
- TT10692 Hydrology and Hydraulic Design Reports;
- Aliso Creek Corridor Specific Plan;
- Orange County General Plan Elements: Land Use; Noise; Transportation; Resources; Recreation; and Safety;
- Biological Assessment and Oak Tree Inventory;
- Saddleback Meadows Preliminary Landscape Submittal,
- Fourth Supplemental Geotechnical Report;
- Correspondence on the Subject,
- Southern California Coastal Sage Scrub NCCP Process Guidelines, Amended November 1993,
- Initial Study No PA940068 - July 6, 1994; and
- Supplemental Saddleback Meadows Communication Booklet - June 30, 1995.

The following discussion provides a detailed analysis of the environmental categories on the Orange County Environmental Analysis Checklist as they relate to the proposed project. It also identifies those issues that have been determined not to have potentially significant effects, and those determined to be mitigatable It also provides the probable scope of evaluation in the Draft Subsequent EIR.

1. LAND USE & PLANNING

Existing Setting

The entire project 222.23-acre Saddleback Meadows project site is currently zoned "S"-Foothill/Trabuco Specific Plan with SR-Sign Restriction overlay district. The Bridlewood/Saddleback Meadows Residential District was established within the Foothill/Trabuco Specific Plan, adopted December, 1991, to recognize the existing zoning and tract map approvals for the Bridlewood/Saddleback Meadows property

The current Orange County General Plan Land Use Element (LUE) designations for the project site are: 1B-Suburban Residential LUE Designation (0.5 to 18 Dwellings per Acre), and 1 2 Low Density Residential Neighborhoods - Community Profile Designation (0.5 to 2 0 Dwelling Units per Acre).

Surrounding Land Uses

Southerly: Hidden Ridge Residential Development (230 Residential Dwelling Units), Ramakrishna Monastery and O'Neill Park.

Westerly: Portola Hills Planned Community Residential Development (2,200 Residential Dwelling Units)

Northerly: Saint Michael's Abbey and Prep School

Easterly: Ramakrishna Monastery; Rural single-family development.

Potential Impacts

Potential impacts which may result if the project is developed include the introduction of 705 manufactured housing units, a 1.7-acre, neighborhood commercial center, and related major infrastructure improvements into an area previously used primarily for open space and agricultural uses; potential conflicts with existing surrounding land uses; and the conversion of agricultural land to development.

The circumstances regarding surrounding land uses has changed since the previous EIRs were certified and the original project was approved. When EIRs 059 and 203 were certified, the vicinity of the project, with the exceptions of St. Michael's Abbey and the Ramakrishna Monastery, was characterized by a undeveloped, predominantly natural environment. The project site, although disturbed through farming and cattle grazing purposes, was dominated by coastal sage scrub, oak woodlands and grasslands. The closest urban development was approximately four miles south of the site near the El Toro/Trabuco Road intersection.

The project vicinity has become more urban since the original approvals. It is now characterized by major residential development, including the Portola Hills Planned Community, the Hidden Ridge project and Foothill Ranch. With the changes that have taken place since the original project was approved, there is a question of the project's compatibility with surrounding uses.

Mitigating Potential Impacts

The changes in circumstances in Land Use and Planning cannot be easily mitigated, if at all. A new Subsequent EIR will provide the best mechanism to properly assess the following:

- The project's potential conflicts with the Foothill-Trabuco Specific Plan, the Aliso Creek Corridor Specific Plan and the Natural Communities Conservation Planning Program (NCCP) Program;
- The project's potential conflicts with surrounding land uses;
- Reassess those major Conditions of Approval listed above which were not satisfied prior to the recordation of Tract 10692, including their appropriateness, relevance and compatibility at this time in light of changed circumstances;
- Identify the potential environmental impacts of the proposed project on the existing agricultural uses,

- Identify mitigation measures necessary to reduce all identified earth resource impacts to a level of insignificance; and

- Identify unavoidable and cumulative earth resource impacts.

Scope of EIR Discussion

The changes in circumstances in Land Use and Planning requires the Subsequent EIR to address the following.

- The project's potential conflicts with the Foothill-Trabuco Specific Plan, the Aliso Creek Corridor Specific Plan and the Natural Communities Conservation Planning Program (NCCP) Program;

- The project's relationship with surrounding land uses;

- Identification of the potential environmental impacts of the proposed project on the existing agricultural uses;

- Identification of mitigation measures necessary to reduce all identified earth resource impacts to a level of insignificance; and

- Identification of unavoidable and cumulative earth resource impacts.

2. POPULATION & HOUSING

The proposed project is not expected to cumulatively exceed adopted regional or local population projections. It will not induce substantial growth in an area directly or indirectly through project in an undeveloped area or extension of major infrastructure. The project would not displace existing housing. The project will increase affordable housing.

No Mitigation is needed and no discussion of Population and Housing is required in the EIR.

3. GEOPHYSICAL

Existing Setting

The project site is primarily in its natural state with a disturbed area of approximately 75 acres used for cattle grazing Although the majority of the site's surface soils and topographical features have not been physically disturbed, geotechnical reports prepared for the project have identified several major landslides which affect the site's stability.

Potential Impacts

Potential impacts which may result if the project is developed include substantial short term changes of the site's landforms and topographical features particularly during remedial grading activities. In the long term, the project proposes site reconfiguration to reflect the site's natural land form features, and related impacts on the soil stability of the site. During construction, erosion and siltation of soils may also occur.

Grading activities on the project site result in sediment being carried into the Aliso Creek Corridor and downstream ultimately to Aliso Beach. Because of the site's seismic features, people and property could be potentially exposed to earthquake and ground failure hazards.

The Planning Application indicates that remedial grading for the project will include grading a portion of the project site due to extensive landslides The Saddleback Meadows Geotechnical Reports indicate that extensive remedial grading with large buttresses will be required to stabilize the project site due to these documented landslides. The Engineering Geology of Part of the Western Half of the Santiago Peak Quadrangle, Orange County, California, prepared by the California Department of Conservation Division of Mines and Geology, has mapped and recorded these landslides.

Scope of EIR Discussion

The Subsequent EIR will provide a detailed discussion and clarification of the following:

- Proposed grading in areas previously designated for preserved open space areas;
- Identification of soil and geologic characteristics and limitations of the project site, including soil stability, earthquake potential and known geologic hazards, including landslides, mudslides, ground failures and similar hazards for the entire site,
- Identification of the seismic features of the site, including the potential exposure of people or property to environmental impacts of the proposed project associated with earthquakes, liquefaction or similar hazards;
- The potential environmental impacts of the proposed project on the existing site topography and unique geologic or physical features,
- Mitigation measures necessary to reduce earth resource impacts to a level of insignificance, and
- Identification of unavoidable and cumulative impacts associated with earth and landform.

4. WATER

Existing Setting

The onsite project drainage has not been modified and remains in a natural state However, some improvements have been made to sections of Aliso Creek, adjacent to the site, including a major man-made drainage channel. This channel passes from the proposed site to the westerly side of El Toro Road.

The area of Aliso Creek Corridor is classified as Floodplain FP-2 by the Federal Emergency Management Agency (FEMA). The project site is located within the watershed of Aliso Creek. Four (4) ponds and four (4) intermittent ponds are also present onsite.

Potential Impacts

Potential impacts which may result if the project is implemented include changes in absorption rates, alteration of the project site's existing landform, subsequently altering the existing flow of water onto, through, around and off the project site.

During construction the disruption of soils may also affect the content of site run-off into the watershed area of Aliso Creek. Groundwater levels and quality, including absorption rates, may be affected by the proposed project.

National Pollution Discharge Elimination System (NPDES) is a regulatory program required by the Clean Water Act and administered by the OCEMA. Potential impacts include pollutant discharges into Aliso Creek.

Scope of EIR Discussion

The Subsequent EIR will provide a detailed analysis of the proposed project's relationship to water resources, including the following:

- Identification and quantification of the current surface water and groundwater drainage patterns and water flows within, and adjacent to, the project site,
- Identification and quantification of the portion of the project site or off-site area that will be impacted by proposed project currently located within FEMA's FP-2 floodplain designation area,
- Identification and quantification of the current surface water and groundwater quality within, and adjacent to, the project site, including existing on-site discharges into drainage channels,
- Identification of significant changes in the course or direction of water movements;
- Identification of changes in absorption rates, drainage patterns, or the rate and amount of surface water run-off;
- Identification of changes in erosion or changes in siltation which may modify the channel of Aliso Creek;
- Identification of changes in the amount of surface water as a result of any proposed storm drain retarding basins,
- Identification of changes in the quantity or quality of groundwaters;
- Identification of the potential environmental impacts of the proposed project on wind or water erosion of soils, on or off-site;
- Identification of alterations to the course, flow or magnitude of flood waters, and resultant exposure of people or property to flood hazards;
- Identification of mitigation measures necessary to reduce project impacts to a level of insignificance, including the development of Best Management Practices (BMP) for compliance with the Clean Water Act; and
- Identification of unavoidable and cumulative water resource impacts

5. TRANSPORTATION/CIRCULATION

Existing Setting

The Saddleback Meadows project site is accessed off of El Toro Road. The site's interior is natural and has no road access.

Potential Impacts

Potential impacts which may result if the project is developed include. The master planned (MPAH) arterial highways and roadways transit systems has identified El Toro Road which is adjacent to the project site and conditioned to be improved to primary status is now scheduled to be upgraded to a major artery, additional grading will be required at implementation; generation of a significant amount of project related traffic, creation of demand for new parking; alteration of existing traffic patterns; and potential impacts vehicles, bicyclists and/or pedestrians.

The traffic and circulation information on the proposed project and its relationship to El Toro Road, including its present and ultimate design configuration and improvement require updating. At the time EIRs 059 and 203 were certified and the project was approved, projects in the vicinity generated less than 3000 Average Daily Trips ADT on El Toro Road, which was designated on the County's Master Plan of Arterial Highways (MPAH) as a primary arterial highway. El Toro Road was reconstructed in the early 1980's to a two-lane highway adjacent to the project site.

Today, projects in the vicinity generate approximately 16,000 ADT along El Toro Road. Since 1985, El Toro has been reclassed on the MPAH from a primary arterial highway to a major arterial. Impacts from the proposed project's additional grading which is necessary for the required upgraded improvements to EL Toro Road from a Primary to a Major Arterial were not addressed in EIRs 059 and 203.

Scope of EIR Discussion

The Subsequent EIR will include a detailed traffic/circulation analysis and a traffic/engineering study. The traffic/circulation study must update projections of the number of trips generated by the project and other projects on the arterial highway system, including El Toro Road, Santiago Canyon Road, Glenn Ranch Road and Portola Parkway. The traffic/engineering study must provide preliminary designs for the ultimate improvement of El Toro Road to major arterial specifications. The following will be included in the Transportation/Circulation section of the EIR:

- Identification of existing and planned public transit systems affected by the proposed project;
- Identification of existing vehicular movement and patterns of circulation within and adjacent to the project site, and the existing vehicular movement in the surrounding vicinity as a result of current land uses through a traffic study;
- Identification and analysis of the existing ingress and egress to the project site, its potential internal circulation and parking problems associated with the proposed development;
- Identification of existing impacts to equestrians, motor vehicles, bicyclists and/or pedestrians;

- Evaluation of the interim and long-term traffic generation of the proposed project and its potential to generate additional vehicular movement beyond current projections of regional traffic;
- Evaluation of the need for El Toro Road to be a primary arterial versus a major arterial
- Identification of increases in demand for public transit services with special attention to relationship with low income housing for senior citizens and any potential conflicts with planned roadway widenings or extensions;
- Identification of specific potential adverse impacts on the vehicular movement and the movement of people and goods as a result of the proposed project, both within the project site and within adjacent communities;
- Identification of specific potential internal circulation problems and potential traffic hazards to motor vehicles, bicyclists and/or pedestrians which may result from the proposed project,
- Identification of the aspects of the proposed project which will create demand for new parking facilities,
- Identification of mitigation measures necessary to reduce project traffic and circulation impacts to a level of insignificance; and
- Identification of unavoidable and cumulative impacts to transportation and circulation resources.

6. AIR

Existing Setting

The project site is located within the South Coast Air Basin, SCAB, which suffers from some of the most severe cases of air pollution in the nation. The SCAB is currently in violation of several federal air quality standards.

Potential Impacts

Potential impacts which may result if the project is developed include: generation of both short-term and long-term air quality impacts, both individually and cumulatively, including increased air emissions; impacts on sensitive receptors in the project vicinity including St. Michael's Abbey and the Hillside Montessori School; and the exposure of persons to locally elevated levels of air pollution.

Scope of EIR Discussion

Although the South Coast Air Basin is already in violation of air quality standards, the impacts of the project on local air quality must be thoroughly assessed. The Subsequent EIR for the proposed project will.

- Identification of the existing air quality environment of the project site in the local and regional context, including, but not limited to: air pollution, objectionable odors; and air movement, moisture and temperature,
- Identification of air quality impacts associated with construction of the proposed project;
- Assessment of the proposed project's consistency with the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP), Regional Mobility Plan (RMP) and Growth

Management Plan (GMP),

- Identification and quantification of long-term air quality impacts resulting from development of the proposed project, including, but not limited to. air pollution; objectionable odors; and increased air movement, moisture or temperature;
- Identification and analysis of the potential sensitive receptors which may be exposed to substantial pollutant concentrations,
- Identification of mitigation measures necessary to reduce short-term and long-term air quality impacts to a level of insignificance; and
- Identification of unavoidable and cumulative air quality impacts.

7. NOISE

Existing Setting

The project site is primarily in its natural state with noise generated by existing land uses and vehicular trips is minor Portions of the project site are impacted by noise resulting from aircraft operations from MCAS-El Toro and is located within the 60 CNEL noise contour of MCAS-El Toro The project is adjacent to El Toro Road, a major access road to O'Neill Regional Park.

Potential Impacts

Potential impacts which may result if the project is approved include the generation of short term impacts related to construction; and the potential exposure of future residents to airborne noise sources, including interim impacts from aircraft operations at MCAS-El Toro prior to closure of this military base

Scope of EIR Discussion

The Subsequent EIR for the proposed project will include a detailed noise assessment including the following:

- Analysis of the exposure of the project site to existing and projected noise from vehicular traffic and aircraft overflights, in terms of individual and combined contribution of sources;
- Identification of the potential exposure of future residents of the project site to projected noise from vehicular traffic and aircraft overflights, both on an interim and long-term basis,
- Identification of any noise impacts on existing residents in the vicinity of the project as the result of project implementation,
- Identification of mitigation measures necessary to reduce noise impacts to a level of insignificance; and
- Identification of unavoidable and cumulative noise impacts

8. BIOLOGICAL RESOURCES

Existing Setting

The proposed project site exists in its natural state. Draft EIR 561 provided an evaluation of the site and together with previous surveys from December, 1989 and September 1990 revealed that the site had been partially disturbed by cattle grazing. Coastal sage scrub habitat has been identified by the Orange County Wildlife Geographic Information System project Coastal Sage Scrub Distribution Map dated February 1994 as existing in this region. Approximately 68 7 acres of Coastal Sage Scrub are located on site. The project site is also an existing wildlife corridor link between O'Neill Regional Park and Whiting Ranch/Limestone Regional Park. In addition, the project site is located within the watershed area of Aliso Creek Corridor The Aliso Creek Corridor which is located adjacent to the project site is identified as a "blue line" stream by the United States Geologic Survey (USGS) Canada Quad topographical map. The U.S Fish and Wildlife Service (USFWS) has documented the occurrence of the Federally Listed as Endangered Riverside Fairy Shrimp on the project site.

Potential Impacts

The proposed project has several potentially significant environmental impacts to biological resources. Specifically·

- Natural Communities Conservation Planning (NCCP) Program The proposed project may potentially impact the State of California Natural Communities Conservation Planning (NCCP) Program. This is a habitat-based conservation process adopted by local, state and federal regulatory agencies charged with making or recommending land use decisions in California, by Assembly Bill AB2172 (Chapter 765, Statutes of 1991).

  Impacts from grading the site would result in the removal of coastal sage scrub. One of the findings the County must make to abide by the provisions of the U.S. Department of Interior's 4(d) Rule is that the loss of the coastal sage scrub will not jeopardize the subregional NCCP Program plan. The site may be identified as one of the links between the Southern subregion and the Central subregion. If this connective link is lost, the 4(d) Rule finding might be precluded. A wildlife corridor has been proposed o-site to complete this link.

- Riverside Fairy Shrimp· The proposed project may impact the Streptocephalus woottoni (scientific name), also known as the Riverside Fairy Shrimp, which is a Federally Listed Endangered Species

  Section 9 of the Endangered Species Act prohibits the "take" of a federally listed species. Documentation is on file in the office of the U.S. Fish and Wildlife Service, Carlsbad Office, attesting to the known occurrence of this federally listed species on the project site According to U.S Fish and Wildlife Service, since the shrimp has been confirmed in one pond, it is highly probable that the species will be found in all eight ponds on the site.

- Sensitive Reptiles and Amphibians: Draft EIR 561 noted that several sensitive or threatened species of reptiles and amphibians can be expected to occur on the subject property These include the following the Arboreal Salamander, the Ensatina, the Western Spadefoot, the Orange-Throated Whiptail, the San Diego Horned Lizard, the Coastal Whiptail, the Coastal Rosy Boa, the Coast Patch-nosed Snake, and the Red Diamond Rattlesnake

- Wildlife Corridor: The significance of the project site's location as a wildlife corridor has changed. Certified EIRs 059 and 203, and Draft EIR 561 identified the site as a wildlife corridor, along with two off-site corridors

connecting two major wildlife areas, the O'Neill Regional Park/Cleveland National Forest open space area and the Whiting Ranch/Limestone Regional Park open space area, easterly and westerly of the subject site, respectively Consequently, the elimination of the site as a wildlife corridor was not treated as a significant impact. The rationale provided for this conclusion was the presence of other wildlife corridors in the project vicinity.

With the construction of residential communities in the project vicinity, the previously identified off-site wildlife corridors have been eliminated. The subject site now provides the only linkage between the two wildlife corridor areas. This document identified several large mammals which live on or frequent the site, including mule deer, mountain lion, gray fox and bobcat, thereby indicating the importance of the site as a wildlife movement corridor.

- Aliso Creek Corridor: Previous approvals for the project site designate the Aliso Creek corridor as natural open space to be preserved. The Aliso Creek corridor contains riparian vegetation and wildlife, Aliso Creek is also designated a blue-line stream, as identified by the U S Geological Survey

  The Site Plan and grading plans for the project indicate that the Aliso Creek corridor preservation area may be disturbed. The revised project proposes grading in the vicinity of the stream bed, which is in the FP-2 "Floodplain 2" District and off-site grading in the Aliso Creek area adjacent to the site to create access road fill placement and conduct remedial grading. The project proposes restoration of the Aliso Creek riparian habitat area upon completion of grading.

Scope of EIR Discussion

The biological resource section of the Subsequent EIR will provide a detailed discussion of the following:

- A re-inventory of the existing unique, sensitive, aesthetically significant, rare, threatened, or endangered flora and fauna within the project site, including an Environmental Assessment and mitigation measures to avoid or reduce impacts;

- Identification of potential impacts to the Natural Communities Conservation Planning ("NCCP") Program, a habitat-based conservation process adopted by local, state and federal regulatory agencies charged with making or recommending land use decisions in California, by Assembly Bill AB2172 (Chapter 765, Statutes of 1991) The NCCP Program states that to approve an interim take application, the local agency must make certain findings, based on the information obtained pursuant to U. S Fish and Wildlife Service (USFWS) pursuant to the Natural Community Conservation Plan (NCCP) Program and the 4(d) Rule,

- A detailed analysis of the project's impacts to wildlife movement, including mitigation measures to avoid or reduce those impacts. The location width, relationship to adjacent wildlife movement corridors must be evaluated;

- Address the proposed grading, including remedial and site preparation grading, in the revised project, which will impact Coastal Sage Scrub, including mitigation measures which avoid or reduce those impacts,

- The project's compliance with the County's general policy as a regulator of the NCCP Program, which is to avoid irreversible commitments that would preclude planning options in designing the coastal sage scrub habitat reserve,

- A detailed discussion of the proposed project's impacts to the Riverside Fairy Shrimp, including a Habitat Conservation Plan, an Environmental Assessment and mitigation measures to avoid or reduce impacts;

- Assessment of the project's impacts on unique, sensitive, aesthetically significant, rare, threatened, or endangered flora and fauna within the project site, including Oak Tree groves and Coastal Sage Scrub;

- Identification of impacts which might result from the removal of existing and intermittent ponds and the associated habitat for sensitive species, including the Riverside Fairy Shrimp, from the project site and off-site areas contiguous to project site;

- Identification of mitigation measures necessary to reduce all identified biological resource impacts to a level of insignificance; and

- Identification of unavoidable and cumulative biological resource impacts.

9. AESTHETICS

Existing Setting

The Saddleback Meadows project site is primarily in a natural state with the site's surface aesthetic features being left undisturbed. Existing light and glare from the project site is minimal, emanating only from the reflection of the eight (8) ponds on the site.

Potential Impacts

Potential aesthetic impacts which may result if the project is developed include the construction of slopes and retaining walls, and a significant alteration in the appearance of the site from off-site vantage points, including El Toro Road which is designated a Scenic Highway on the County's Master Plan of Arterial Highways. Aesthetic impacts are especially pronounced from the existing residential developments southerly and westerly of the project site.

Potential light and glare impacts which may result if the project is approved include: increased levels of exterior lighting and illumination, having the potential for adverse impacts upon residential neighborhoods and sensitive biotic communities.

Scope of EIR Discussion

The Subsequent EIR to be prepared for the proposed project will

- Identification of existing scenic vistas and views open to the public across the project site. Assess the obstruction of any scenic vista or view open to the public or the creation of any aesthetically offensive site open to public view;

- A line of sight analysis of the project from El Toro Road, Hidden Ridge, Portola Hills, St. Michael's Abbey, and O'Neill Regional Park;

- Assessment of the current aesthetic importance of the project site and the aesthetic impact of the proposed project to other developments in the project vicinity;

- Evaluation and comparison of the potential aesthetic impacts associated with implementing the existing zoning and those associated with the proposed project. The narrative of this topical discussion must be supplemented by detailed simulation models of both the General Plan and the project.
- Identification of mitigation measures necessary to reduce aesthetic impacts to a level of insignificance; and
- Identification of unavoidable and cumulative aesthetic impacts

10. CULTURAL/SCIENTIFIC RESOURCES

Existing Setting

The Saddleback Meadows project site is primarily in a natural state with only minimal disturbance through cattle grazing and farming activities Therefore, the site's potential cultural/scientific resources and features have not be disturbed.

Potential Impacts

The grading of the property has the potential of resulting in alteration of or damage to significant archaeological, historical and/or paleontological resources.

Scope of EIR Discussion

The Subsequent EIR for the proposed project will include the following

- Inventory existing significant archaeological and/or historical sites, structures, objects, or buildings located on the project site;
- Inventory potential paleontological sites,
- Evaluation of potential significant impacts to archaeological or historical sites, structures, objects, or buildings;
- Identification of mitigation measures necessary to reduce identified cultural/scientific resources to a level of insignificance, and
- Identification of unavoidable and cumulative cultural/scientific resource impacts

11. RECREATION

Existing Setting

There are no existing recreation or public open space uses located on the project site. However, the proposed project site is located between O'Neill and Whiting Ranch/Limestone Regional Parks. A proposed trail is designated within the project site by the Orange County General Plan Recreation Element Master Plan of Regional Riding and Hiking trails.

Potential Impacts

The project represents a potential conflict with adopted recreational plans and policies, including the Aliso Creek Corridor Specific Plan, the General Plan Recreation Element and the Foothill/Trabuco Specific Plan

Scope of EIR Discussion

The Subsequent EIR for the proposed project will address the following:

- Identification of all currently planned recreational opportunities within the project site and the surrounding vicinity;
- Assessment of the impact of the proposed project on the quality and quantity of existing recreation opportunities;
- Evaluation and comparisons of the potential recreation impacts associated with implementing the existing zoning designations and those associated with the proposed project;
- Identification of mitigation measures necessary to reduce recreation impacts to a level of insignificance, and
- Identification of unavoidable and cumulative recreation impacts

12. ENERGY & MINERAL RESOURCES

Existing Setting

The Saddleback Meadows project site is primarily in a natural state None of the site's potential mineral resources have been disturbed. Previous EIRs 561, 059 and 203 did not identify energy and/or mineral resources on the site. The Orange County General Plan does not designate the site as having a high potential for mineral resources. No Mitigation is required and no discussion is necessary in the Subsequent EIR.

13. HAZARDS

Existing Setting

The Saddleback Meadows project site is located close to the Cleveland National Forest which is a potential fire hazard area. The project site is also located near the flight path of El Toro Marine Corps Air Station which has been approved for re-use

Potential Impacts

Potential impacts which may result if the project is developed include the possible exposure of future residents to a high fire hazard area (north of Portola Parkway). Until MCAS El Toro is closed, residents may be subjected to potential, though remote, crash hazards.

Scope of EIR Discussion

The Subsequent EIR will provide a detailed discussion of hazards, including the following.

- Identification of the current fire hazards, both on-site and within the project site vicinity;
- Identification of any existing emergency response plans for the project site and evaluate the potential of the proposed project to impact emergency response plans or evacuation plans;
- Identification of potential safety impacts of MCAS-El Toro operations on the proposed project,
- Identification of the impact to future users of the site with respect to possible exposure to other hazards;
- Identification of mitigation measures necessary to avoid or reduce hazards to a level of insignificance; and
- Identification of unavoidable and cumulative hazard impacts

14. PUBLIC SERVICES

Existing Setting

The Saddleback Meadows project site is undeveloped open space with limited use for cattle grazing The project site is served by the following major public services:

Fire Protection	Orange County Fire Department
Police Protection	Orange County Sheriff-Coroner's Department
Schools	Saddleback Valley School District

The closest fire station is Station #42 located on Ridgeline Drive with a response time of approximately 3 minutes to the project site. The sheriff's service ratio of sworn officer to population is approximately 1/2050 All the schools in the project vicinity are at capacity

Potential Impacts

Potential impacts which may result if the project is developed include the need for additional fire personnel and additional police personnel. The project is expected to generate elementary, junior high and high school students to be absorbed into the Saddleback Valley School District.

Scope of EIR Discussion

The Subsequent EIR will provide a detailed assessment of the impacts to Public Services, including

- Assessment of the adequacy of the supply of public services to be delivered to the future residents of the proposed project site;
- Evaluation and comparison of the potential public services impacts associated with implementing the proposed project;
- Identification of mitigation measures necessary to avoid or reduce public services impacts to a level of insignificance, and
- Identification of unavoidable and cumulative public services impacts.

15. UTILITIES & SERVICE SYSTEMS

Existing Setting

The Saddleback Meadows project site is undeveloped open space with limited use for cattle grazing. The project site is served by the following major public utilities and service systems:

Electrical Power	Southern California Edison
Natural Gas	Southern California Gas Company
Water and Sewer	Trabuco Canyon Water District

Potential Impacts

No potential significant impacts to Utilities and Service Systems are expected to result if the project is developed.

Scope of EIR Discussion

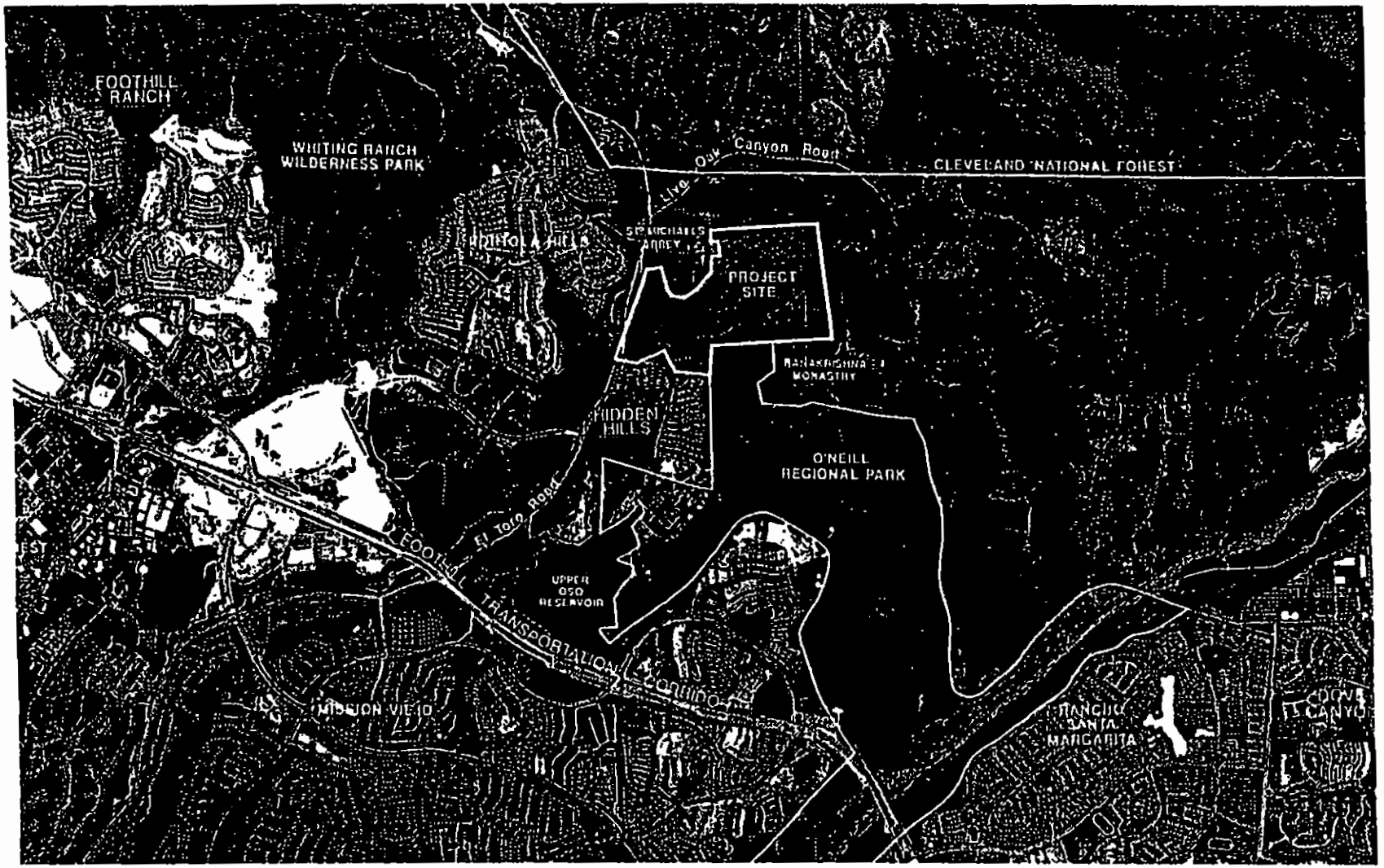
The Subsequent EIR will provide a detailed assessment of the impacts to Public Utilities and Service System, including:

- Assessment of the adequacy of the supply of public utilities and service systems to be delivered to the future residents of the proposed project site;
- Evaluation and comparison of the potential public utility and service system impacts associated with implementing the proposed project;
- Identification of mitigation measures necessary to avoid or reduce all identified public utility and service system impacts to a level of insignificance; and
- Identification of unavoidable and cumulative public services impacts

EXHIBITS

- Regional Location Map
- Vicinity Map
- Aerial Photograph
- Proposed Site Plan

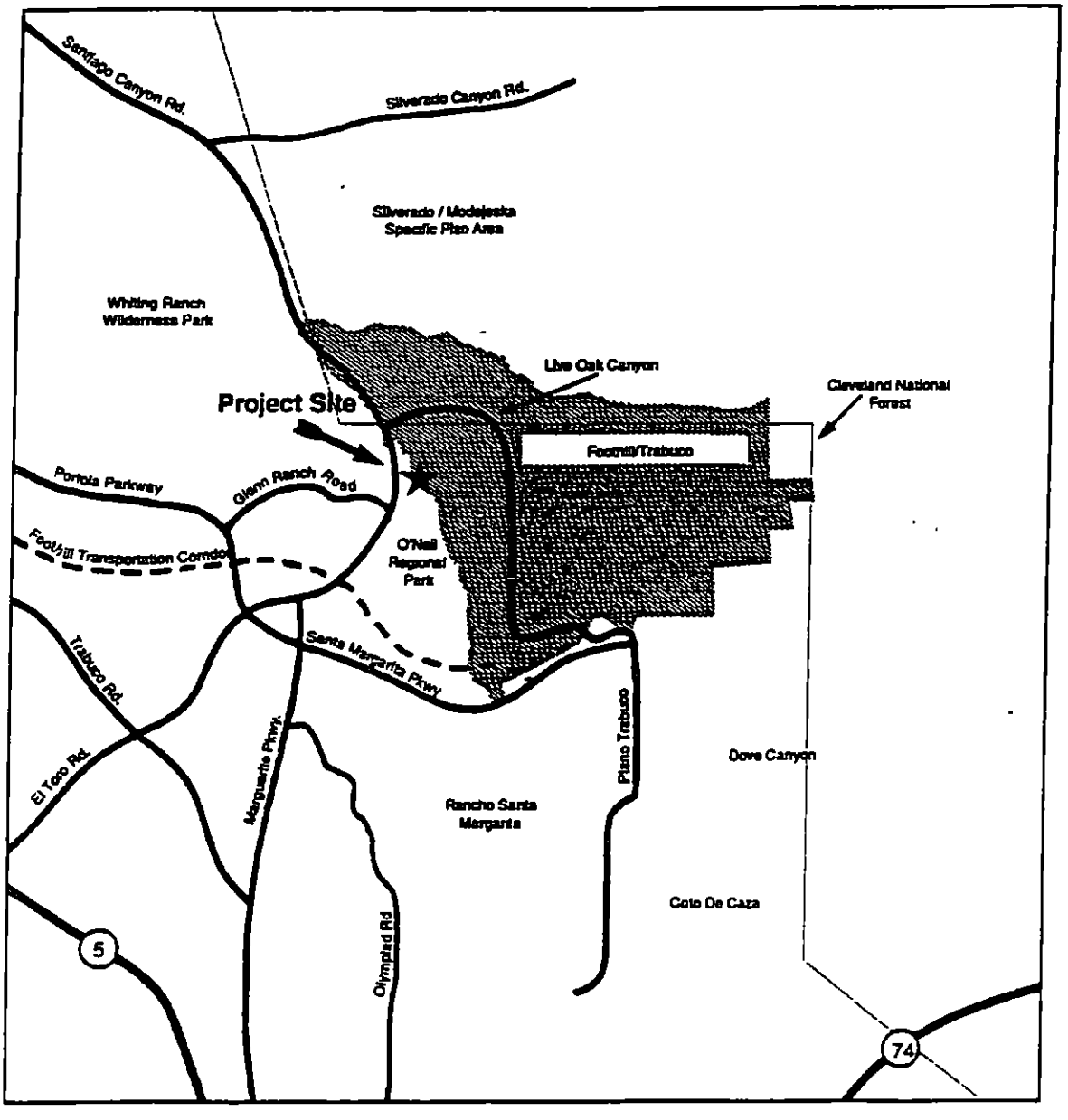
c:\office\jobs\TPG-01\NOP doc



SADDLEBACK MEADOWS INITIAL STUDY

VICINITY AERIAL

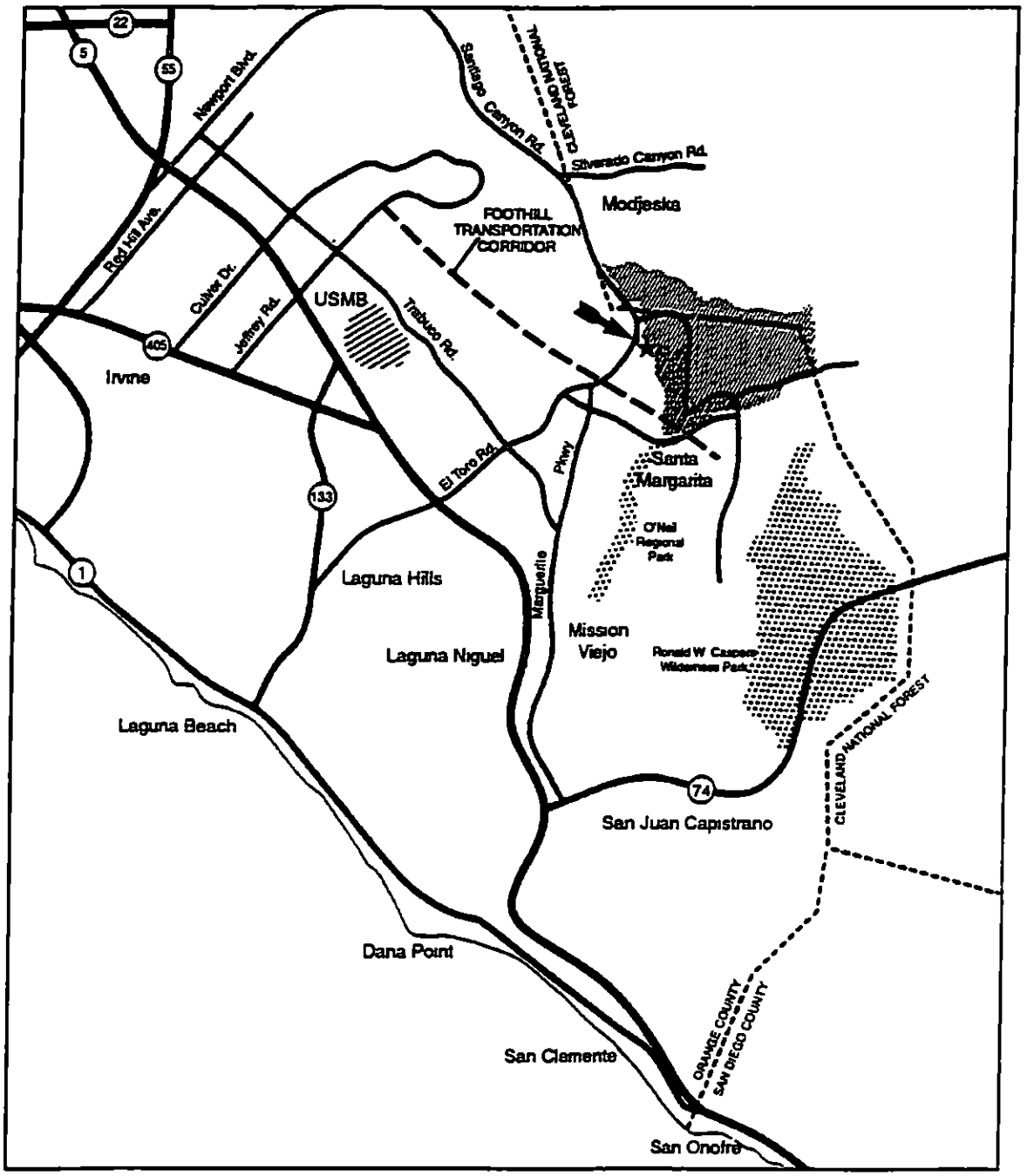
OCEMA



SADDLEBACK MEADOWS INITIAL STUDY

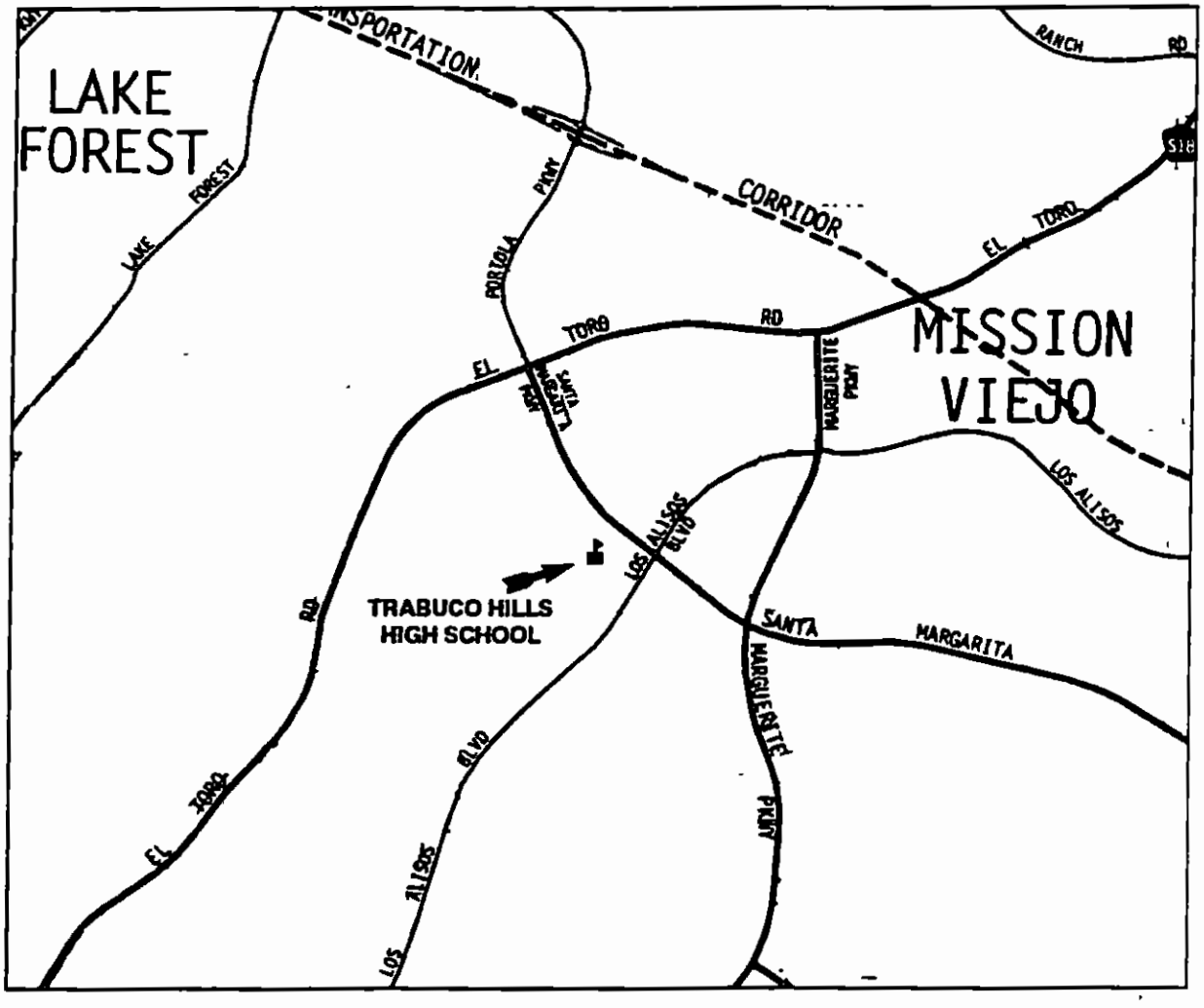
VICINITY MAP

OCEMA



SADDLEBACK MEADOWS INITIAL STUDY — **REGIONAL MAP**

OCEMA

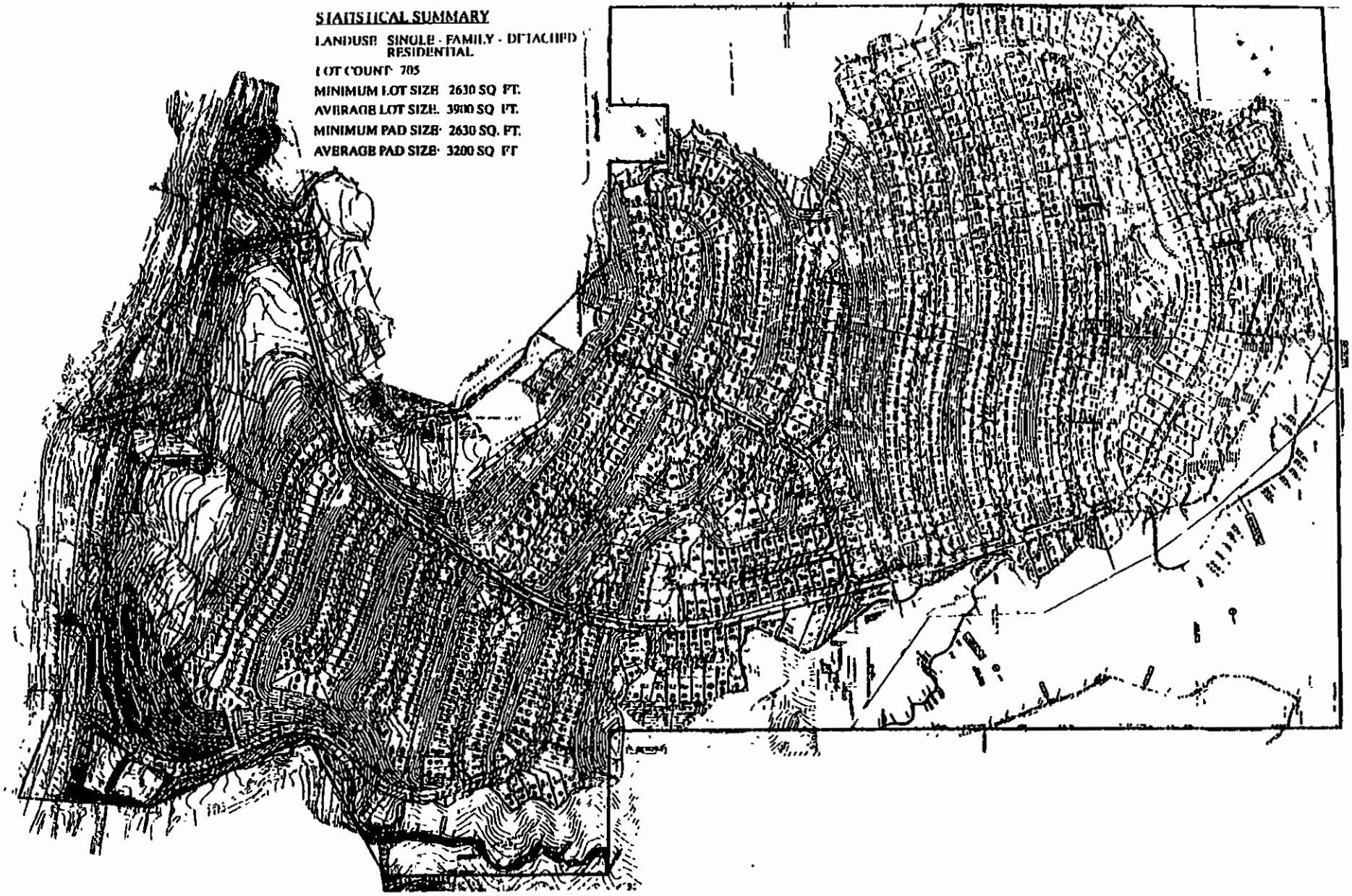


N

TRABUCO HILLS HIGH SCHOOL
LOCATION MAP

SADDLEBACK MEADOWS INITIAL STUDY

OCEMA



SADDLEBACK MEADOWS - VTTM 15230
DRAFT ENVIRONMENTAL IMPACT REPORT

URBAN VISION ▪ OCEMA

SCALE: 1" = 400'

SOURCE: Forma

N

Site Plan EXHIBIT

JAMES A. LOEPER
&
DAWN E. LOEPER
19352 HIGHRIDGE WAY
TRABUCO CANYON, CA 92679

(714) 589-0834
(714) 589-0144 FAX

DATE: 2/17/97 TO: PLANNING AND DEVELOPMENT SVCS. DEPT.

SADDLEBACK MEADOWS

We have recently received the "Notice of Preparation" in regard to the above mentioned development.

Upon reviewing these documents, we feel prompted to send this transmittal.

The following points are our concerns on this project:

1. Besides affecting the natural beauty and rural atmosphere that the specific plan attempts to preserve, there will be a threat to the wildlife in this area because the plan has too much density of housing and appears to not have a wildlife corridor There are a significant amount of animals that will be in constant danger of being run over because of the road that they will be crossing.

2. The peace and tranquillity of two large religious organizations will be affected. These two being St. Michael's Abbey (which I believe to be the only Catholic Prep School on the west coast) and the Ramakrishna Monastery.

3. Bringing another 705 homes into this area will tax the existing infrastructure of roads, schools, etc. We are not prepared to handle the amount of people this development will bring in.

4. There appears to be only one road into the project, and should there be an emergency such as a fire, I cannot see how that many people will be able to leave the development and still allow emergency vehicles to enter.

5. The people in Portola Hills do not want an amendment to the current zoning not only because of aesthetic value, but for fear that the loss of their current views will affect the value of their homes.

6. We are very concerned that there are two extremely different views of the stability of the hills in Saddleback Meadows. How can two expert geologists (one hired by a previous developer and one hired by St. Michael's Abbey) give such opposing views of the stability of the area? It might be well advised to hire an independent geologist to do studies so that the County of Orange does not become entangled in law suits should a landslide occur.

The issues above are of great concern to us and we hope that you can either resolve them or **STOP** the Saddelback Meadows zoning amendment. Thank you.

James Lopper Dawn Lopper

Attachment D

1 Mulberry Lane

Trabruco Canyon, California 92679

RECEIVED
FEB 27 1997

February 26, 1997

Manager, Planning & Development
Services Dept.
300 No. Flower St., Room 321
Santa Ana, California 92702-4048

Re: Proposal for 705 Mobile Homes - California Quartet, Inc.

Gentlemen:

Late last summer the Board of Supervisors voted down this developer's plan for 318 single family homes on this same property. Now the developer comes back with his original proposal for 705 mobile homes. This proposal is absolutely preposterous and they know it.

The addition of 318 homes would have had a negative impact on the character of this area because of the increased population and traffic. I cannot image how 705 mobile homes could possibly be considered more palatable. This is ludicrous and I appeal to you to keep these carpetbaggers from destroying the Canyon.

Very truly yours,

Donald R. Finn

DRF:cf

STATE OF CALIFORNIA - THE RESOURCES AGENCY PETE WILSON, Governor

DEPARTMENT OF FISH AND GAME
Region 5
330 Golden Shore, Suite 50
Long Beach, California 90802
(562) 590-5113

March 12, 1997

Mr. Raymond H.C. Brantley
Orange County Environmental Management Agency
P.O. Box 4048
Santa Ana, California 92702-4048

Dear Mr. Brantley:

Notice of Preparation of Draft Environmental Impact Report
Saddleback Meadows Residential Development
SCH 96121072, Orange County

The Department of Fish and Game (Department) appreciates this opportunity to comment on the above-referenced project, relative to impacts to biological resources. To enable Department staff to adequately review and comment on the proposed project, we recommend the following information be included in the Draft Environmental Impact Report:

1 A complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats.

a. A thorough assessment of rare plants and rare natural communities, following the Department's May 1984 Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities (Attachment 1).

b. A complete assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.

c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, § 15380).

d. The Department's California Natural Diversity Data Base in Sacramento should be contacted at (916) 327-5960 to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.

a. CEQA Guidelines, § 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

b. Project impacts should be analyzed relative to their effects on off-site habitats. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided.

c A cumulative effects analysis should be developed as described under CEQA Guidelines, § 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

d. The document should include an analysis of the effect that the project may have on completion and implementation of regional and/or subregional conservation programs. Under § 2800-2840 of the Fish and Game Code, the Department, through the Natural Communities Conservation Planning (NCCP) program, is coordinating with local jurisdictions, landowners, and the Federal Government to preserve local and regional biological diversity. Coastal sage scrub is the first natural community to be planned for under the NCCP program. The Department recommends that the lead agency ensure that the development of this and other proposed projects does not preclude long-term preserve planning options and that projects conform with other requirements of the NCCP program. Jurisdictions participating in the NCCP should assess specific projects for consistency with the NCCP Conservation Guidelines. Additionally, the jurisdictions should quantify and qualify: 1) the amount of coastal sage scrub within their boundaries; 2) the acreage of coastal sage scrub habitat removed by individual projects; and 3) any acreage set aside for mitigation. This information should be kept in an updated ledger system. These issues must be addressed in an Environmental Impact Report per CEQA Guidelines, § 15065 and § 15380

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

   a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Off-site compensation for unavoidable impacts through acquisition and protection of high-quality habitat elsewhere should be addressed.

   b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).

   c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. If the project has the potential to adversely affect species of plants or animals listed under the California Endangered Species Act (CESA), either during construction or over the life of the project, a CESA-Memorandum of Understanding (CESA-MOU) must be obtained under § 2081 of the Fish and Game Code. CESA-MOU's are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA-MOU.

   a. Biological mitigation proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA-MOU.

   b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

5. The Department opposes the elimination of watercourses and/or their channelization or conversion to subsurface drains. All wetlands and watercourses, whether intermittent or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations.

a. The Department has direct authority under Fish and Game Code § 1600 et. seq. in regard to any proposed activity which would divert, obstruct, or affect the natural flow or change the bed, channel, or bank of any river, stream, or lake. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources.

b. A discussion of potential adverse impacts from any increased runoff, sedimentation, soil erosion, and/or urban pollutants on streams and watercourses on or near the project site, with mitigation measures proposed to alleviate such impacts must be included.

The Department holds regularly scheduled pre-project planning/early consultation meetings. To make an appointment, please call our regional office at (310) 590-5137.

Thank you for this opportunity to comment. Questions regarding this letter and further coordination on these issues should be directed to Mr. Scott Harris, Wildlife Biologist at (562) 590-5100 or Mr. Ray Ally, Associate Fishery Biologist at (562) 590-5147.

Sincerely,

Lilia I Martinez

for Patricia Wolf
Acting Regional Manager

Attachments

cc: See Attached List

cc. Mr. Scott Harris
Department of Fish and Game
Long Beach, California

Mr. Ray Ally
Department of Fish and Game
Long Beach, California

Mr. Jim Dice
Department of Fish and Game
San Diego, California

Ms. Terri Dickerson
Department of Fish and Game
Laguna Niguel, California

Mr. William Tippets
Department of Fish and Game
San Diego, California

U.S. Fish and Wildlife Service
Carlsbad, California

U.S. Army Corps of Engineers
Los Angeles, California

State Clearinghouse
Sacramento, California

ATTACHMENT 1

State of California
THE RESOURCES AGENCY
Department of Fish and Game
May 4, 1984

GUIDELINES FOR ASSESSING THE EFFECTS OF PROPOSED DEVELOPMENTS ON RARE AND ENDANGERED PLANTS AND PLANT COMMUNITIES

The following recommendations are intended to help those who prepare and review environmental documents determine when a botanical survey is needed, who should be considered qualified to conduct such surveys, how field surveys should be conducted and what information should be contained in the survey report.

1. Botanical surveys that are conducted to determine the environmental effects of a proposed development should be directed to all rare and endangered plants and plant communities. Rare and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare and/or endangered under the following definitions.

   A species, subspecies or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy form one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition or disease. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

   Rare plant communities are those communities that are of highly limited distribution. These communities may or may not contain rare or endangered species. The most current version of the California Natural Diversity Data Base's Outline of Terrestrial Communities in California may be used as a guide to the names of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or the extent that, rare plants will be affected by a proposed project when:

   a. Based on an initial biological assessment, it appears that the project may damage potential rare plant habitat;

   b Rare plants have historically been identified on the project site, but adequate information of impact assessment is lacking; or

   c. No initial biological assessment has been conducted and it is unknown whether or not rare plants or their habitat exist on the site.

3. Botanical consultants should be selected on the basis of possession of the following qualifications (in order of importance):

   a. Experience as a botanical field investigator with experience in field sampling design and field methods;

   b. Taxonomic experience and a knowledge of plant ecology;

   c. Familiarity with the plants of the area, including rare species; and

   d. Familiarity with the appropriate state and federal statutes related to rare plants and plant collecting.

4. Field surveys should be conducted in a manner that will locate any rare or endangered species that may be present. Specifically, rare or endangered plant surveys should be:

   a. Conducted at the proper time of year when rare or endangered species are both "evident" and identifiable Field surveys should be scheduled (1) to coincide with known flowering periods, and/or (2) during periods of

phenological development that are necessary to identify the plant species of concern.

b. Floristic in nature. "Predictive surveys" (which predict the occurrence of rare species based on the occurrence of habitat or other physical features rather than actual field inspection) should be reserved for ecological studies, not for impact assessment. Every species noted in the field should be identified to the extent necessary to determine whether it is rare or endangered.

c. Conducted in a manner that is consistent with conservation ethics. Collection of rare or suspected rare species (voucher specimens) should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit regulations. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a reasonably thorough coverage of potential impact areas.

e. Well documented. When a rare or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form should be completed and submitted to the Natural Diversity Data Base.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations, EIR's and EIS's. should contain the following information:

a. Project description, including a detailed map of the project location and study area.

b. A written description of biological setting referencing the community nomenclature used and a vegetation map.

c. Detailed description of survey methodology.

d. Dates of field surveys.

e. Results of survey (including detailed maps).

f. An assessment of potential impacts.

g. Discussion of the importance of rare plant populations with consideration of nearby populations and total species distribution.

h. Recommended mitigation measures to reduce or avoid impacts.

i. List of all species identified.

j. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.

k. Name of field investigator(s).

l. References cited, persons contacted, herbaria visited, and disposition of voucher specimens.

SENSITIVITY OF TOP PRIORITY RARE NATURAL COMMUNITIES IN SOUTHERN CALIFORNIA*

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows:

S1. - Less than 6 known locations and/or on less than 2,000 acres of habitat remaining.

S2. - Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.

S3. - Occurs in 21-100 known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to the natural community regardless of the ranking. For example:

S1.1 = very threatened
S2.2 = threatened
S3.3 = no current threats known

Sensitivity Rankings (February 1992)

Rank	Community Name	
S1.1	Mojave Riparian Forest	Southern Dune Scrub
	Sonoran Cottonwood Willow Riparian	Southern Coastal Bluff Scrub
	Mesquite Bosque	Maritime Succulent Scrub
	Elephant Tree Woodland	Riversidean Alluvial Fan Sage Scrub
	Crucifixion Thorn Woodland	Southern Maritime Chaparral
	Allthorn Woodland	Valley Needlegrass Grassland
	Arizonan Woodland	Great Basin Grassland
	Southern California Walnut Forest	Mojave Desert Grassland
	Mainland Cherry Forest	Pebble Plains
	Southern Bishop Pine Forest	Southern Sedge Bog
	Torrey Pine Forest	Ciamontane Alkali Marsh
	Desert Mountain White Fir Forest	
S1.2	Southern Foredunes	
	Mono Pumice Flat	
	Southern Interior Basalt Fl. Vernal Pool	
S2.1	Venturan Coastal Sage Scrub	Coastal and Valley Freshwater Marsh
	Diegan Coastal Sage Scrub	S. Arroyo Willow Riparian Forest
	Riversidian Upland Coastal Sage Scrub	Southern Willow Scrub
	Riversidian Desert Sage Scrub	Modoc-G. Bas. Cottonwood Willow Rip.
	Sagebrush Steppe	Modoc-Great Basin Riparian Scrub
	Desert Sink Scrub	Mojave Desert Wash Scrub
	Mafic Southern Mixed Chaparral	Engelmann Oak Woodland
	San Diego Mesa Hardpan Vernal P.	Open Engelmann Oak Woodland
	San Diego Mesa Claypan Vernal P.	Closed Engelmann Oak Woodland
	Alkali Meadow	Island Ironwood Forest
	Southern Coastal Salt Marsh	Island Cherry Forest
	Coastal Brackish Marsh	S. Interior Cypress Forest
	Transmontane Alkali Marsh	Bigcone Spruce-Canyon Oak Forest
S2.2	Active Coastal Dunes	White Mountains Fellfield
	Active Desert Dunes	
	Stab. and Part. Stab. Desert Dunes	
	Stab. and Part. Stab. Desert Sandfield	
	Mojave Mixed Steppe	
	Transmontane Freshwater Marsh	S2.3 Bristlecone Pine Forest
	Coulter Pine Forest	Limber Pine Forest
	S. California Fellfield	

GLOBAL RANKING

The *global rank* (G-rank) is a reflection of the overall condition of an element throughout its global range.

SPECIES OR NATURAL COMMUNITY LEVEL

- **G1** = Less than 6 viable EOs OR *less* than 1000 individuals OR less than 2000 acres.
- **G2** = 6-20 EOs OR 1000-3000 individuals OR 2000-10,000 acres.
- **G3** = 21-100 EOs OR 3000-10,000 individuals OR 10,000-50,000 acres.
- **G4** = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat.
- **G5** = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

SUBSPECIES LEVEL

Subspecies receive a T-rank attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety.
For example: *Chorizanthe robusta var. hartwegii.*
This plant is ranked G2T1. The G-rank refers to the whole species range i.e. *Chorizanthe robusta.* The T-rank refers only to the global condition of var. *hartwegii.*

STATE RANKING

The *state rank* is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

- **S1** = Less than 6 EOs OR less than 1000 individuals OR less than 2000 acres
  - S1.1 = very threatened
  - S1.2 = threatened
  - S1.3 = no current threats known
- **S2** = 6-20 EOs OR 1000-3000 individuals OR 2000-10,000 acres
  - S2.1 = very threatened
  - S2.2 = threatened
  - S2.3 = no current threats known
- **S3** = 21-100 EOs or 3000-10,000 individuals OR 10,000-50,000 acres
  - S3.1 = very threatened
  - S3.2 = threatened
  - S3.3 = no current threats known
- **S4** - Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.
- **S5** - Demonstrably secure to ineradicable in California. NO THREAT RANK.

Notes:

1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take a bird's eye or aerial view when ranking sensitive elements rather than simply counting EOs.

2. Uncertainty about the rank of an element is expressed in two major ways:

   By expressing the rank as a range of values:
   ex. S2S3 means the rank is somewhere between S2 and S3.

   By adding a ? to the rank:
   ex. S2? This represents more certainty than S2S3, but less than S2.

3. Other symbols

- **GH** All sites are historical; the element has not been seen for at least 20 years but suitable habitat still exists (SH = All California sites are historical).
- **GX** All sites are extirpated; this element is extinct in the wild (SX = All California sites are extirpated).
- **GXC** Extinct in the wild; exists in cultivation.
- **G1Q** The element is very rare, but there is a taxonomic question associated with it.

NDDB rare communities R-5 Feb. 1992
Page 1

Top Priority Rare Natural Communities
From Region Five

Code Number	Location	Few Records	Name
S1.1 Rank			
21330	Cis		Southern Dune Scrub
31200	Cis		Southern Coastal Scrub
32400	Cis		Maritime Succulent Scrub
32720	Cis		Riversidean Alluvial Fan Sage Scrub
37030	Cis	Y	Southern Maritime Chaparral
42110	Cis		Valley Needlegrass Grassland
43000	Des	Y	Great Basin Grassland
43777	Des	Y	Mojave Desert Grassland
47000	Cis		Pebble Plains
51177	Cis	Y	Southern Sedge Bog
52310	Cis		Cismontane Alkali Marsh
61700	Des		Mojave Riparian Forest
61810	Des		Sonoran Cottonwood Willow Riparian
61820	Des		Mesquite Bosque
75100	Des	Y	Elephant Tree Woodland
75200	Des	Y	Crucifixion Thorn Woodland
75300	Des	Y	Allthorn Woodland
75400	Des	Y	Arizonan Woodland
81600	Cis		Southern California Walnut Forest
81820	Cis	Y	Mainland Cherry Forest
83122	Cis	Y	Southern Bishop Pine Forest
83140	Cis		Torrey Pine Forest
85330	Des	Y	Desert Mountain White Fir Forest
S1.2 Rank:			
21230	Cis		Southern Foredunes
35410	Des		Mono Pumice Flat
44310	Cis		Southern Interior Basalt FL Vernal Pool
S2.1 Rank:			
32300	Cis	Y	Venturan Coastal Sage Scrub
32500	Cis		Diegan Coastal Sage Scrub
32710	Cis	Y	Riversidian Upland Coastal Sage Scr.
32730	Cis	Y	Riversidian Desert Sage Scrub
35300	Des	Y	Sagebrush Steppe
35120	Des	Y	Desert Sink Scrub
37122	Cis	Y	Mafic Southern Mixed Chaparral
44321	Cis		San Diego Mesa Hardpan Vernal P.
44322	Cis		San Diego Mesa Claypan Vernal P.
45310	Des		Alkali Meadow
52120	Cis		Southern Coastal Salt Marsh
52320	Cis		Coastal Brackish Marsh
52410	Des		Transmontane Alkali Marsh

Coded as either cis (for cismontane) or des (for desert)

NDDB rare communities R-5 Feb. 1992
page 2

Code Number	Location	Few Records	Name
62410	Cis		Coastal and Valley Freshwater Marsh
61320	Cis		S. Arroyo Willow Riparian Forest
63320	Cis		Southern Willow Scrub
61610	Des		Modoc-G Bas Cottonwood Willow Rip.
63600	Des	Y	Modoc-Great Basin Riparian Scrub
63700	Des	Y	Mojave Desert Wash Scrub
71180	Cis	Y	Engelmann Oak Wood
71181	Cis	Y	Open Engelmann Oak Wood
71182	Cis	Y	Closed Engelmann Oak Woodland
71190	Cis	Y	Island Oak Woodland
71210	Cis		California Walnut Woodland
81700	Cis	Y	Island Ironwood Forest
81810	Cis		Island Cherry Forest
83230	Cis		S. Interior Cypress Forest
84150	Cis	Y	Bigcone Spruce-Canyon Oak Forest
S2.2 Rank:			
21100	Cis	Y	Active Coastal Dunes
22100	Des		Active Desert Dunes
22200	Des		Stab. and Part Stab. Desert Dunes
22300	Des	Y	Stab. and Part Stab. Desert Sandfield
34220	Des	Y	Mojave Mixed Steppe
52420	Des	Y	Transmontane Freshwater Marsh
84140	Cis	Y	Coulter Pine Forest
81130	Cis	Y	S. California Fellfield
81140	Des	Y	White Mountains Fellfield
S2.3 Rank:			
86400	Des		Bristlecone Pine Forest
85700	Des	Y	Limber Pine Forest

County of Orange

MEMO

DATE: March 10, 1997

TO: Raymond Brantly, Chief, Environmental & Project Planning

FROM: Johnnie Earnest, Chief, Geotechnical/Grading Plan Check

SUBJECT: Review of Revised Notice of Intent to Prepare a Draft Environmental Impact Report # 566 - Saddleback Meadows Residential Development - Tract 10692 - Grading Application GA960048

Comments prepared in the review of Notice of Intent to Prepare a Draft Environmental Impact Report #566 - Saddleback Meadows residential Development - Tract 10692 - Grading Application GA960048 dated January 28, 1997 remain applicable.

PC0634

Law Offices of
VerLyn N. Jensen

March 5, 1997

MAR 0 5 1997

VIA MESSENGER

Planning and Development Services Department
Environmental and Project Planning
300 N. Flower
Room 321
Santa Ana, CA 92702

Attention: Raymond H.C. Brantley and William Grieman

RE: Saddleback Meadows Project No. GA 960048

Dear Sirs:

In response to Revised Notice of Preparation Draft Environmental Impact Report No. 566, dated February 6, 1997, please be advised that the undersigned is co-counsel for St. Michael's Abbey, an adjacent property owner.

In response to your request for the "views" of St. Michael's Abbey, please find enclosed a copy of a study, dated September 9, 1996, entitled "The Critical Problems with Saddleback Meadows"

This booklet was prepared as an analysis of the 318 unit single family residence project proposed by EIR 561, Zone Change 95-5 and Area Plan Amendment 95-7 (Tentative Tract Map #15230). All of the comments contained in this analysis are equally applicable to Draft EIR #566.

The undersigned as well as all of the consultants whose views are set forth in the enclosed analysis are still available for clarification of their views and expert opinions.

Lakeshore Towers
18101 Von Karman Avenue, Suite 1800
Irvine, California 92715-1007
Phone 714-835-9000 Fax 714-261-8670

If you have any further questions please do not hesitate to contact the undersigned.

Very truly yours,

VerLyn N. Jensen

Enclosures

cc: Father Hugh Barbour
St. Michael's Abey

VNJ/mp

Attachment D

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
2501 PULLMAN STREET
SANTA ANA, CA 92705

RECEIVED
MAR - 7 1997

March 5, 1997

Raymond Brantley
Planning & Development Services
P.O. Box 4048
Santa Ana, CA. 92702-4048

File: IGR/CEQA
SCH # none

Subject: Saddleback Meadows Development

Dear Mr. Brantley:

Thank you for the opportunity to review and comment on the Notice of Preparation for the Saddleback Meadows Development. The proposed development is located 1/2 mile south of the El Toro Road/Live Oak Canyon Road intersection in the Foothill/Trabuco Specific Plan area. The project proposes the phased development of 705 manufactured single-family residential units and a 1.7 acre commercial center. Caltrans District 12 is a reviewing agency and our only comment is to coordinate your planning with the Transportation Corridor Agency.

We appreciate the opportunity to comment on this document. If you have any questions, please contact Aileen Kennedy on (714) 724-2239.

Sincerely,

Robert F. Joseph, Chief
Advance Planning Branch

cc: Tom Loftus, OPR
Ron Helgeson, HDQTRS Planning
Tom Persons, HDQTRS Traffic Operations
Dan Dunn, Right of Way
T.H. Wang, Traffic Operations
Judy Heyer, System Planning & Public Transportation

Attachment D

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Carlsbad Field Office
2730 Loker Avenue West
Carlsbad, California 92008

FACSIMILE TRANSMITTAL FORM

Date Sent: **Time Sent:**

Call to have picked up [ ] **Number of pages including this transmittal sheet [5]**

TO: Raymond Brantley **Fax No.:** ( )

Phone No.: ( )

FROM: Ken Corey **Fax No.:** (619) 431-9618
431-5902

Phone No.: (619) 431-9440

SUBJECT: Sandhawk Meadows

COMMENTS:

California Gnatcatcher

U.S. Fish & Wildlife Service
2730 Loker Avenue West
Carlsbad, CA 92008
(619) 431-9440
FAX: (619) 431-9618

CA Dept. of Fish & Game
1416 Ninth Street
PO Box 944209
Sacramento CA 94244-2090
(916) 653-9767
FAX: (916) 653-2588

March 7, 1997

Mr. Raymond Brantley
EMA/Environmental & Project Planning
300 N. Flower St., Room 321
P.O. Box 4048
Santa Ana, California 92702-4048

Revised Notice of Preparation (Draft Environmental Impact Report No. 566)
Saddleback Meadows Development, Orange County, California

Dear Mr. Brantley:

The Fish and Wildlife Service (Service) and the California Department of Fish and Game (Department) (i.e., "the agencies") have reviewed the above referenced document. The document lists an additional project alternative for a total of five alternatives. This new alternative is stated as a "cluster/reduced development footprint" with 318 housing units. Other impacts on the new Environmental Analysis Checklist contained in the document are identified as "significant unless mitigated." These issues are water, transportation/circulation, and air quality. Our comment letter dated January 30, 1997, responding to the original Notice of Preparation for this Draft Environmental Impact Report, remains in effect.

In an effort to assist you and the project applicant in evaluating the potential for conflicts between Federal and State regulated species and the proposed project, the agencies are providing the following list of species that occur or may occur within the project area. Note that the Quino checkerspot butterfly (*Euphydryas editha quino*) and the San Diego fairy shrimp (*Branchinecta sandiegoensis*) are now federally listed as endangered. We are also including a list of "sensitive species," which are derived from various lists maintained by the agencies. Sensitive species are included to notify applicants and regulatory agencies in advance of possible listing proposals. None of the species listed as sensitive have been petitioned for listing, however. We also suggest that the current list maintained by the California Native Plant Society be consulted regarding sensitive plant species.

Attachment D

The Service recently learned that fairy shrimp habitat within the project area may have been adversely impacted. If you have any information about this matter, please inform the agencies. If you have any questions or comments regarding our letter, please contact Liam H. Davis, Associate Wildlife Biologist (Department) at 619-467-4207 or Robert James, Fish and Wildlife Biologist (Service) at 619-431-9440.

Sincerely,

Gail C. Kobetich
Field Supervisor
U.S. Fish and Wildlife Service

GV William E. Tippets
Ron Rempel
NCCP Program Manager
California Department of Fish and Game

cc: California Department of Fish and Game (B. Tippets, P. Wolf, S. Harris, T. Dickerson)
1-6-97-SP-58
Attachment

Endangered, Threatened, Proposed, and Sensitive Species that may occur in the area of Saddleback Meadows, Orange County, California (1-6-97-SP-58)

Common Name	Scientific Name	Status
Listed Species		
PLANTS		
Braunton's milk vetch	*Astragalus brauntonii*	FE
INVERTEBRATES		
Quino checkerspot butterfly	*Euphydryas editha quino*	FE
Riverside fairy shrimp	*Streptocephalus woottoni*	FE
San Diego fairy shrimp	*Branchinecta sandiegoensis*	FE
vernal pool fairy shrimp	*Branchinecta lynchi*	FT
BIRDS		
peregrine falcon	*Falco peregrinus*	FE
coastal California gnatcatcher	*Polioptila californica californica*	FT
Proposed Species		
PLANTS		
Santa Monica Mountains dudleya	*Dudleya cymosa* ssp. *ovatifolia*	FPT
Candidate Species		
BIRDS		
mountain plover	*Charadrius montanus*	FC, SC
Sensitive Species		
AMPHIBIANS		
western spadefoot toad	*Scaphiopus hammondii*	SC
REPTILES		
Silvery legless lizard	*Anniella pulchra pulchra*	SC
San Diego horned lizard	*Phrynosoma coronatum blainvillei*	SC
orange-throated whiptail	*Cnemidorphorus hyperythrus beldingi*	SC
coast patch-nosed snake	*Salvadora hexalepis virgultea*	SC
San Diego mountain kingsnake	*Lampropeltis zonata pulchra*	SC

BIRDS		
ferruginous hawk	*Buteo regalis*	SC
white-tailed kite	*Elanus caeruleus*	SFP
northern harrier	*Circus cyaneus*	SC
Cooper's hawk	*Accipiter cooperii*	SC
sharp-shinned hawk	*Accipiter striatus*	SC
golden eagle	*Aquila chrysaetos*	SC
prairie falcon	*Falco mexicanus*	SC
merlin	*Falco columbarius*	SC
short-eared owl	*Asio flammeus*	SC
burrowing owl	*Athene cunicularia*	SC
tricolored blackbird	*Agelaius tricolor*	SC
MAMMALS		
pallid bat	*Antrozous pallidus*	SC
California leaf-nosed bat	*Macrotis californicus*	SC
greater western mastiff bat	*Eumops perotis californicus*	SC
Los Angeles little pocket mouse	*Perognathus longimembris brevianus*	SC

LEGEND: FE: Federal Endangered, FT: Federal Threatened, FPT: Federal Proposed Threatened, FC: Federal Candidate SE: State Endangered, SFP:State Fully Protected, SC: State Species of Special Concern

Attachment D

ENVIRONMENTAL MANAGEMENT AGENCY

Date: 2/6/97

DIRECTOR
- Secretary
- Special Proj. Asst

DEPUTY DIRECTOR
- Secretary
- Project Dev. Mgr

FAA PROPERTY SERVICES

ADMINISTRATION

Budget & Cash Mgmt

Central Support
- IRC
- Mailroom
- Library
- Graphics
- Central Files
- Facilities

Economic Analysis/Legislation

Financial Operations
- Payroll
- Supplies
- Contracts

Program Support

COMPUTER SERVICES
- Office Systems
- Office Equip.
- H&R Systems
- Application Dev. Support

ACCOUNTING SERVICES
- Billings/Claims
- Transportation
- H&R Comm. Dev.
- H&R Housing Acct.
- Flood

HUMAN RESOURCES SERVICES

PLANNING & DEVELOPMENT SVCS. DIRECTOR
- Secretary
- Administrative Support

AGRICULTURAL COMMISSIONER
- Agriculture
- Weights/Mess.

BUILDING PERMITS
- IRC
- Commercial
- PMF
- Residential
- Acoustics

SUBDIVISION & GRADING
- Subdivision
- Trans
- Grading
- OCEH/AHPDES

ENVIRONMENTAL RESOURCES
- Water Qual
- Env. Studies
- Storm Water

BUILDING INSPECTION (Ex. County Res. Branch)
- Admin. Support
- Grading
- Plumb/Mech
- Residential
- Com. Struct.
- Elect

COUNTY PROPERTY PERMITS
- Road/Parks/CARP
- Road/Corridors/Elm
- Special Processing

HARBORS, BEACHES & PARKS DIRECTOR

Secretary

ASSET MANAGEMENT
- Plng & Acquis
- Program Support
- Real Estate
- Revenue Dev

SPECIAL PROJECTS

DESIGN
- Rec. Facilities
- Inspection (Offsh Prkd)

REGIONAL PARKS OPERATIONS
- No Dist
- Cent. Dist
- So. Dist

Special Programs

COASTAL AND HISTORICAL FACILITIES
- Coastal
- CRA/Trails
- Hist. Prop.
- Coast. Adm.
- Special Comm/Open Space

HOUSING AND REDEVELOPMENT DIRECTOR
- Secretary
- D.A. Investigators

COMMUNITY DEVELOPMENT
- New Horizon
- Hsing Preservation
- Redev.
- Community Revitalization

HOUSING PROGRAM SERVICES
- Grant Management
- Accounting
- Prog Compl

HOUSING ASSISTANCE
- Leasing
- Occupancy
- Site Hsng

PLANNING DIRECTOR
- Secretary
- El Toro Reuse

PLANNING COMMISSION/ZONING ADMINISTRATION

LAND USE PLANNING
- Site Plng
- Land Use Enforcement
- Public Counter
- Consistency Mgmt

ADVANCE PLANNING
- Element Plng
- Countywide Prd
- SARP

ENVIRONMENTAL AND PROJECT PLANNING
- Coastal Prd
- Inf. Priv./Cas. Prd
- Public Proj

PUBLIC WORKS DIRECTOR
- Secretary
- Claims Investigation

DESIGN
- Road
- Road
- OSHA
- Utilities

FLOOD PROGRAMS
- Program Planning
- Santa Ana River Project

SURVEY
- North County
- South County
- Office

CONSTRUCTION
- Const. Admin.
- Contracts
- Special Prd
- Materials

OPERATIONS
- Maint. Systems Management
- Field Operations

TRANSPORTATION DIRECTOR

Secretary

TRANSPORTATION PLANNING
- Modelling
- Long Range Plng
- Studies

TRANSPORTATION PROGRAMS
- Programs
- Prof. Dev.
- Prof. Dev. II

TRAFFIC ENGINEERING
- Dev. Studies
- Operations
- Signal Ops

SPECIAL DISTRICTS
- ERP
- Admin
- Trans

Remarks:

Folder in 5558

Mark
Ray
I'm fine with your earlier discussion of acreage for this site in pre-eval. for Saddleback Inds. E/R & assume it will be added Marlene will be sim x 3724 of

___ Action ___ Information
___ Response By _____ ___ Signature/Approval

MHB:ntsp\PC1140L.DOC(5/7/96)

Attachment D

Jerold M. Kacsir
23 Riverview Drive
Trabuco Canyon, CA 92679

RECEIVED
MAR 10 1997

Mgr., Planning & Dev. Serv. Dept.
300 N. Flower, Room 321
Santa Ana, CA 92702-4048

Regarding: Response to Intent to Prepare A Draft Environmental Impact Report #566

Sirs:

The notice of Draft EIR #566 seems somewhat confusing since the same proposal for 705 mobile homes was pulled by the applicant in favor of a less dense proposal (318 homes) in 1995. Then in 1996 the Board of Supervisors rejected the less dense proposal as not appropriate to the area and the communities surrounding the proposed development. Now we have 705 mobile homes plus an added feature of a commercial center. In general, if the lower density was not suitable before, how can an increased density and a commercial center be appropriate to the area or to the surrounding communities.

Response will be in order as seen in the Notice of Preparation.

In the Environmental Analysis Check list:

1. Land Use and Planning.
   a) Does the general plan designation or zoning include commercial as part of its scope and if not, does this constitute a Less Than Significant Impact?
   d) The conflict with adjacent, existing or planned land uses is more than just Significant Unless Mitigated. The surrounding land uses should be compared not to the communities of Portola Hills or Hidden Ridge but to the similar land uses in the Foothill/Trabuco Specific Plan area. There exists severe conflicts for this land use and there is Potential Significant Impact in this regards.

3. Geophysical
   d) The landslide and mudslide issue was an important one in the previously proposed plan and EIR. The same developer down played the potential of landslides once grading started with much public testimony regarding the numbers used to calculate the danger. In the final Board of Supervisors meeting the developer had modified these calculated numbers to agree with many opponents of the development. However, the calculations of the amount of grading did not change to reflect the lower numbers. If this issue poses a Potential for Significant Impact, the impact should even be more severe with the lower numbers agreed upon last year.

3. d) continued:
This issue of landslides is one of the most significant issues facing the surrounding communities and other land owners since the potential for damage and loss of property is very high. The developer could abandon the project if the grading proves undoable. Then the problem of leaving a denuded, undeveloped and problematic land mass as a legacy to County is ever present.

e) The erosion and changes to topography is so great that this alone should preclude the development of this land at the level proposed. A much less dense development would seem more appropriate and a more sane approach.

h) The unique geological or physical features of this land mass will change severely if this project as proposed is completed. In the first go around of the 705 mobile homes, I made comments at both the Planning Commission and the Board of Supervisors regarding the quantity of grading required for this project. At that time I made the comment that the grading proposed is of Biblical proportions since the average change in height of the land would be about 30 feet. **This truly does make the hills laid low and the valleys filled in.** There seems to be no change in the amount of grading and it seems that the amount should have increased in regards to the numbers for the soil being lowered.

5) Transportation/Circulation
In general the traffic circulation was a major concern for the previous 318 home project. Now that 705 mobile homes are proposed, the traffic situation would seem to have more than doubled. If the mitigation is to build wider and larger roads then the effects to other environmental concerns will be exacerbated. One effect is that the scenic highway through the canyons would be threatened. Another is that the noise, pollution and the increased traffic will have a detrimental effect not only on human inhabitants but wildlife as well.

Thus, the vehicle trips and traffic congestion would seem to be more than Less Than Significant Impact. Also, safety concerns of the added traffic lights and speeds associated with El Toro Road and canyon highway are greater than Significant Unless Mitigated. Finally, the addition of a commercial center as part of this development will increase traffic not associated with the mobile homes proposed.

6) Air Quality
a) What mitigation can there be to lower the air pollution of a project other than to lower the extent of the project. What this issue brings up is that the project has more of the right to pollute than the surrounding communities, to the detriment of all.

b) Further more, if sensitive people will be effected by the air pollution form the project, what is the mitigation other than having these people move to avoid the pollution or again, have the extent of the project reduced.

7. Noise
   a) What mitigating actions can be taken to reduce noise. If landscaping is the only option to mitigate the increased noise levels, we are looking at 7-10 years before mitigation takes effect.

8. Biological Resources
   a) Endangered, threaten or rare species do inhabit this area as found in a previous EIR. The area suggested to for development would make it impossible to apply mitigating measures. If most or all the land is developed, graded or otherwise disturbed, how can any of these species be protected or survive.
   b), c), d) All these points will be difficult to mitigate with the proposed development and the area it will disturb.
   e) The Wildlife dispersal or migration corridors will be completely eliminated with the proposed development. What seems very curious is that the proposed project does not plan to provide a wildlife corridor as stated in Project Description table on page 2. The CEQA checklist seems to indicate that a wildlife corridor is a Significant Impact and that other corridors no longer exist. How can this project's description not include this vital wildlife corridor.

9. Aesthetics
   a) & b) With the significant impact to the scenic view and the scenic highway, what mitigation is possible. No amount if landscaping will provide mitigation.
   c) The proposed project of mobile homes will have an offensive aesthetic effect to the other communities surrounding the development. Again, the surrounding communities are very different in style and usage of the land than the designated area of this development and if the mitigating actions taken to reduce the aesthetic impact. So, again, if landscaping is the only option to potentially mitigate this impact, we are looking at 7-10 years before the aesthetic impacts are mitigated.
   d) The effects of lights from this development will have more than a less than significant impact. The development is above many communities surrounding the site and lights have a great potential of glaring or shining down onto these communities.

11. Recreation
   a) The local area parks are already severely taxed, the proposed development adds significant impact to the current park systems without adding to the park systems.

13. Hazards
    e) The proposed development is next to open space that has little access. The extent of the development of this project is such that a significant fire hazard exists, especially for those lots next O'Neill Park. The fire hazard from the number of new residences will increase the potential danger not only to this project but to the surrounding communities as well. There exists only one access road out of this development and in an emergency, the amount of traffic using the one road could add to the hazards.

14. Public Services
    a) The increased danger of fire hazards should have a very significant impact on fire protection. Who will bear the burden of the need for increased fire protection. Will the increased services be paid for by this development or the county as a whole.
    b) Police protection has the same concern as 14a) above.
    c) Schools are already taxed in the area. There is no mitigation proposed for providing new schools to handle the increased needs. Furthermore, the state is mandating smaller class sizes in higher grades levels and this will only exacerbate the need for new schools and classrooms. This issue seems to have a Potential Significant Impact rather than a Significant Unless Mitigated since other developments in Mission Viejo (600 condos) are impacting the schools as well.

Please review this proposed development carefully since the Potential Significant Impacts are many and greater than indicated. One of the greatest impacts of this project is that it is started and found to be economically or physically not feasible. Then the land could be abandoned in a worse state than it presently exists and would threaten surrounding homes, lives and general well being.

Sincerely yours,

Jerold M. Kacsir

Attachment D

March 7, 1997

MAR 10 1997

Elizabeth Wallace
Representative, Portola Hills
19241 Jasper Hill Rd.
Trabuco Canyon, CA 92679
(714) 858-3014

Mr. Tom Mathews
Director, Orange County Environmental Management Agency
300 North Flower St.
Santa Ana, CA 92702

Dear Mr. Mathews:

I am writing as a representative of Portola Hills regarding the grading permit currently pending for Saddleback Meadows and alternatives recently proposed by TPG Management.

a. The two alternative proposals of 228 units and 183 units are unacceptable because their environmental impact is too great and they threaten to destabilize the entire site.

b. Our community endorses the 100-home Alternative 4 as described in the previous EIR for Saddleback Meadows.

c. We request a Full Faith Performance bond be required of the developer before a project on this landslide-prone site is allowed.

d. If a partial development is allowed, our community would like the see the remainder of the site purchased and preserved as open space Preserving the entire site as open space is also a desirable alternative.

e. A real value of the property needs to be determined. To help determine its value, the County should act on the question of a grading permit for the 705-unit trailer park. The grading permit should be denied because of the project's significant environmental impacts from massive grading, landslide potential, endangered wildlife eradication, and incompatibility with surrounding neighbors, etc.

On a related issue, Planning Area 11, a site on El Toro Road south of the Saddleback Meadows site, experienced a large landslide this week during grading operations for 600 high-density units on 60 buildable acres.

Please consider our community's concerns for Saddleback Meadows as part of your advanced urban planning for our area.

Sincerely,

Elizabeth Wallace

cc: Mr. Todd Spitzer

Attachment D

Bernard Siegel
12 Sugarpine Drive
Trabuco Canyon, CA 92679
(714) 589-1879

Mgr. Planning & Dev. Serv. Dept.
300 N. Flower, Room 321
Santa Ana, CA 92702-4048

February 28, 1979

Re: Saddleback Meadows Project

We have reviewed the EIR for the Saddleback Meadows project, #566, and respectfully submit the following comments:

Environmental Analysis Checklist - Issue #15. c) - We believe there should be an "X" on the line indicating the level of impact.

Page 2 Table titled "Surrounding Project Comparison Summary - We believe the Proposed Project must include a Wildlife Corridor as indicated Items V.A. and V.B. on Page 3 and Item 8. Biological Resources, Potential Impacts, Wildlife Corridor starting at the bottom of Page 16.

Page 10 Item 2. - We disagree with the statement that no discussion of Population and Housing is required in the EIR. Area schools are already over capacity and the Saddleback Meadows project, along with the apartments under construction on El Toro Road will certainly aggravate the situation.

Page 10 Item 3. - This item describes Potential environmental impacts on Aliso Creek and Aliso Beach as well as to occupants and structures in Hidden Ridge, the Ramakrishna Monastery, O'Neill Park, Portola Hills, Saint Michaels Abbey and Prep School, and Rural homes. We feel that, because of the vastness of potential liability, bonding of the developer should be of a sum consistent with that potential.

Page 15 Item 6 Scope of EIR Discussion - We believe that any discussion of impact on air quality should include not only the project under current conditions but should address the impact combined with other construction in the area including the apartments on El Toro Rd., additional housing in Portola Hills and Foothill Ranch, industrial construction in Foothill Ranch and along Portola Parkway, Lake Forest Drive and Bake Parkway. It should also consider the impact of a commercial airport at El Toro MCAS.

Page 18 Item 9 Aesthetics, Scope of EIR Discussion - A line of sight analysis should also be conducted from the project to the Ramakrishna Monastery.

Sincerely,

Bernard Siegel Cynthia D. Siegel

Bernard Siegel Cynthia D. Siegel

ORANGE COUNTY FIRE AUTHORITY
PO Box 86, Orange, CA 92856-0086 • 180 South Water St., Orange, CA 92866-2175
Larry J. Holms, Director of Fire Services *(714) 744-0400*

March 18, 1997

Raymond Brantley
Environmental and Project Planning
P.O. Box 4048
Santa Ana, Ca 92702-4048

Subject: Revised Notice of Preparation for Draft EIR #566. Saddleback Meadows Development.

Dear Mr. Brantley:

At this time, Orange County Fire Authority (OCFA) staff have no additional comments other than those provided on March 17. However, I would like to point out the significance of those comments as they relate to the proposed development product. The requirements for construction in a Special Fire Protection Area include provisions which would be difficult, if not impossible, to meet with a "manufactured single family housing unit". In addition, based on work with a prior applicant, the requirement for a second point of access at 150 units would not be possible at this site due to geographic and topographic restriction.

Please contact me at (714)744-0485 if you have any questions.

Respectfully,

Laura Blaul,
Deputy Fire Marshal
Planning & Development

DIEGUEÑO/COASTAL GABRIELENO
Band of Mission Indians

RECEIVED
MAR 11 1997

March 7, 1997

Mr. Raymond Brantley
Planning and Development Services Dept.
P. O. Box 4048
Santa Ana, CA 92702-4048

RE: Notice of Preparation/Draft E.I.R. No. 566
Saddleback Meadows Development

Dear Mr. Brantley:

After receipt on February 11, 1997 and upon careful evaluation of the Notice of Preparation and Initial Study GA960048 documents dated February 6, 1997 prepared by the County of Orange, and pursuant to the provisions of the California Environmental Quality Act allowing for public comments from interested parties, I am taking this opportunity to comment and make recommendations on this project.

As Tribal Chairman and Chieftain of this Indian Tribe, I would like to emphasize our desire to the County of Orange that this tribe be included in all further aspects of this project. My comments and recommendations will be directed to the cultural resource section (Section 10, pg 19) of the Notice of Preparation.

The recommendations of this tribe are as follows:

(1) Mitigation measure to be included in the Draft E.I.R. would stipulate that a professional Native American monitor selected by this tribe be present during all archaeological inventory, subsurface excavation/data recovery and during construction grading and trenching.

(2) Mitigation measure to be included in the Draft E.I.R. would stipulate that the professional Native American monitor selected for this position give weekly written reports to this tribal council and to other appropriate, interested agencies as deemed necessary. This monitor will also be required to give oral reports and testimony at those times when called upon to do so.

(3) As to any and all artifacts and cultural items encountered during excavations and/or grading, it would be the responsibility of the County of Orange to provide a safe environment for curation until the Native American monitor and members of this tribal council decide upon a proper disposition.

1226 West 3rd Street
Santa Ana, CA 92703
(714) 647-4237

Attachment D

It is the belief of this tribe that the comments and recommendations that have been made will be a valuable asset to the County of Orange in their commencement of this project. I hope that you and your staff will carefully consider the above recommendations. Please keep me informed of any future public hearings and comment deadlines as this tribe will carefully follow the progress of this project to the end.

Sincerely,

Jim Velasques

Jim Velasques
Tribal Spokesman and Chief
Diegueño/Coastal Gabrieleno

JV/nec
cc: Samuel H. Dunlap,
P.N.A.C.R.M.

1226 West 3rd Street
Santa Ana, CA 92703
(714) 547-4237

County of Orange

MEMO

DATE: FEB 28 1997

TO: Ray Brantley, Environmental and Coastal Planning

FROM: Ignacio Ochoa, Traffic Engineering

SUBJECT: Saddleback Meadows Notice of Preparation (Revised)

Traffic Engineering has completed its review of the revised N. O. P. and find some inconsistencies still exist with in the document.

1. The project on the public notice page proposes 158 acres or 71% of the site reserved for 705 single family residential units and 64 acres or 29% of the site proposed for open space, whereas page 1 of the initial study GA960048 proposes 10% of the project site for open space.

2. In the Environmental Analysis Checklist, under Transportation/Circulation - The effect of the vehicle trips generated by this proposal should be in the "Significant Unless Mitigated" instead of the "Less Than Significant Impact" column.

Ignacio Ochoa

TS:wb
7022713290171

Attachment D

County of Orange

MEMO

FEB 13 1997

DATE:

TO: George Britton, Manager, Environmental and Project Planning

Attn: Raymond Brantley

FROM: Manager, Environmental Resources

SUBJECT: Review of NOP for Saddleback Meadows Development

In response to your request for input on the subject project, Environmental Resources has reviewed this document and offers the following comments:

The EIR should particularly emphasize the water quality conditions of Aliso Creek as a "Receiving Water" of runoff from the project. Portions of Aliso Creek are already officially recognized as "impaired" in terms of water quality by the San Diego Regional Water Quality Control Board, due to some extent from urban stormwater runoff. As a result, all increases in potential pollutant discharge associated with contaminants in urban runoff are of concern. Intensive replacement of the current pervious cover with impervious surfaces could have impacts on the ability of an impaired water body to recover from current adverse conditions.

Potential project surface water quality impacts would arise from construction activities, long-term runoff impacts of new impervious surfaces, pesticides and fertilizers applied to new landscaping, outdoor uses (either principal or ancillary uses), and spills from accidents and/or improper residential management of chemicals.

In terms of specific mitigations for project impacts, these could include:

a) preparation of a construction Stormwater Pollution Prevention Plan under State NPDES requirements;
b) incorporation of these construction notes recommended in the Countywide Drainage Area Management Plan (DAMP) New Development Appendix;
c) incorporation of Federal EPA/NOAA guidance measures for coastal nonpoint source pollution;
d) incorporation of other measures from the State Municipal BMP Manual;
e) incorporation of other measures from the State Urban Runoff Technical Advisory Committee Report and Recommendations;
f) development of a long-term post-construction water quality management plan, describing committments to installation and maintenance of structural facilities and conduct of non-structural Best Management Practices (BMPs) consistent with the DAMP New Development Appendix;
g) inclusion of flood control improvements sensitive to surface water quality; and/or
h) inclusion of the goals and objectives from the Water Quality Control Plan for the San Diego Region for water quality as engineering design goals for runoff leaving the project area.

Additionally, problems that have been identified with previous environmental documents on this property include:

Attachment D

a) conclusions that implementation of a standard Water Quality Management Plan (WQMP) would assure that "no unavoidable adverse impacts to...water quality" result. Such an assumption is invalid, in that no scientific research was conducted to determine the efficacy of such measures, and no CEQA documentation was prepared for their adoption. The EIR should recognize that there will be unquantifiable and incremental unavoidable adverse water quality impacts associated with the project;

b) failure to include the standard county condition dealing with performance of a hazardous materials assessment prior to offers of dedication for public purposes. This condition should appropriately appear as a mitigation; and

c) recognizing that Aliso Creek is a watershed already formally designated as impaired in terms of water quality by the Statewide Water Quality Assessment, but then creating arbitrary criteria for assessing impact significance. Such criteria need to be based on the Beneficial Uses established for Aliso Creek in the Regional Water Board Region 9 Basin Plan and the impact the project could have on use attainability. The EIR should recognize that run-off arising from the built-out project may have impacts on the ultimate ability of Aliso Creek to recover from its current impairment.

If there are any questions, please contact Jim Swanek at 567-6342.

Bruce Moore for

Chris Crompton

Attachment D

DATE: January 28, 1997

TO: Raymond Brantly, Chief, Environmental & Project Planning

FROM: Johnnie Earnest, Chief, Geotechnical/Grading Plan Check

SUBJECT: Review of Notice of Intent to Prepare a Draft Environmental Impact Report # 566 - Saddleback Meadows Residential Development - Tract 10692 - Grading Application GA960048

This site has been the object of several previous studies. Applicable comments contained in the second screencheck review of the Draft Environmental Impact Report EIR #561 issued on December 29, 1995 should be addressed in the subject EIR #566. A copy of those comments are attached.

According to the subject document approximately 10 % of the site is to remain open space. Based upon previous reviews, mitigation measures will require encroachment into this area. Although the areas will remain open space grading operations will remove a large portion of the natural vegetation.

The impact that grading operations will have upon the stability of adjacent property and vice versa must be addressed and appropriate mitigation/corrective grading measures provided.

If the site is to be graded in phases appropriate grading measures must be provided to demonstrate that each phase will have adequate stability.

As noted above consideration must be given to the impact that grading activity will have upon the biological resources of the area.

PC0606

Add to revised NOP list (see Grace)

Attachment D

The Gas Company®

Orange Coast Region

February 18, 1997

County Of Orange
Planning & Developmenbt Services Dept.
P.O Box 4048
Santa Ana, Ca. 92702-4048

Attention: Raymond H.C. Brantley

Southern California Gas Company
Mailing Address
Box 3334
Anaheim, CA
92803-3334

SUBJECT: WILL SERVE - Saddleback Meadows Development

This letter is not to be interpreted as a contractual commitment to serve the proposed project, but only as an information service. Its intent is to notify you that the Southern California Gas Company has facilities in the area where the above named project is proposed. Gas service to the project could be served from an existing main as shown on the attached atlas sheet without any significant impact on the environment. The service will be in accordance with the company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.

The availability of natural gas service, as set forth in this letter, is based upon present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under the jurisdiction of the federal regulatory agencies. Should these agencies take any action which affects gas supply or the condition under which service is available, gas service will be provided in accordance with revised conditions.

Residential (System Area Average)	Yearly
Single-family	750 therms/year/dwelling unit
Multi-family units	475 therms/year/dwelling unit

These averages are based on total gas consumption in residential units served by Southern California Gas Company during 1985 and it should not be implied that any particular home, apartment or tract or homes will use these amounts of energy.

Estimates of gas usage for non-residential projects are developed on an individual basis and are obtained from a Market Services Staff representative by calling (800) 427-2000. Market Services can also provide assistance in selecting the most energy efficient appliances or systems for a particular project.

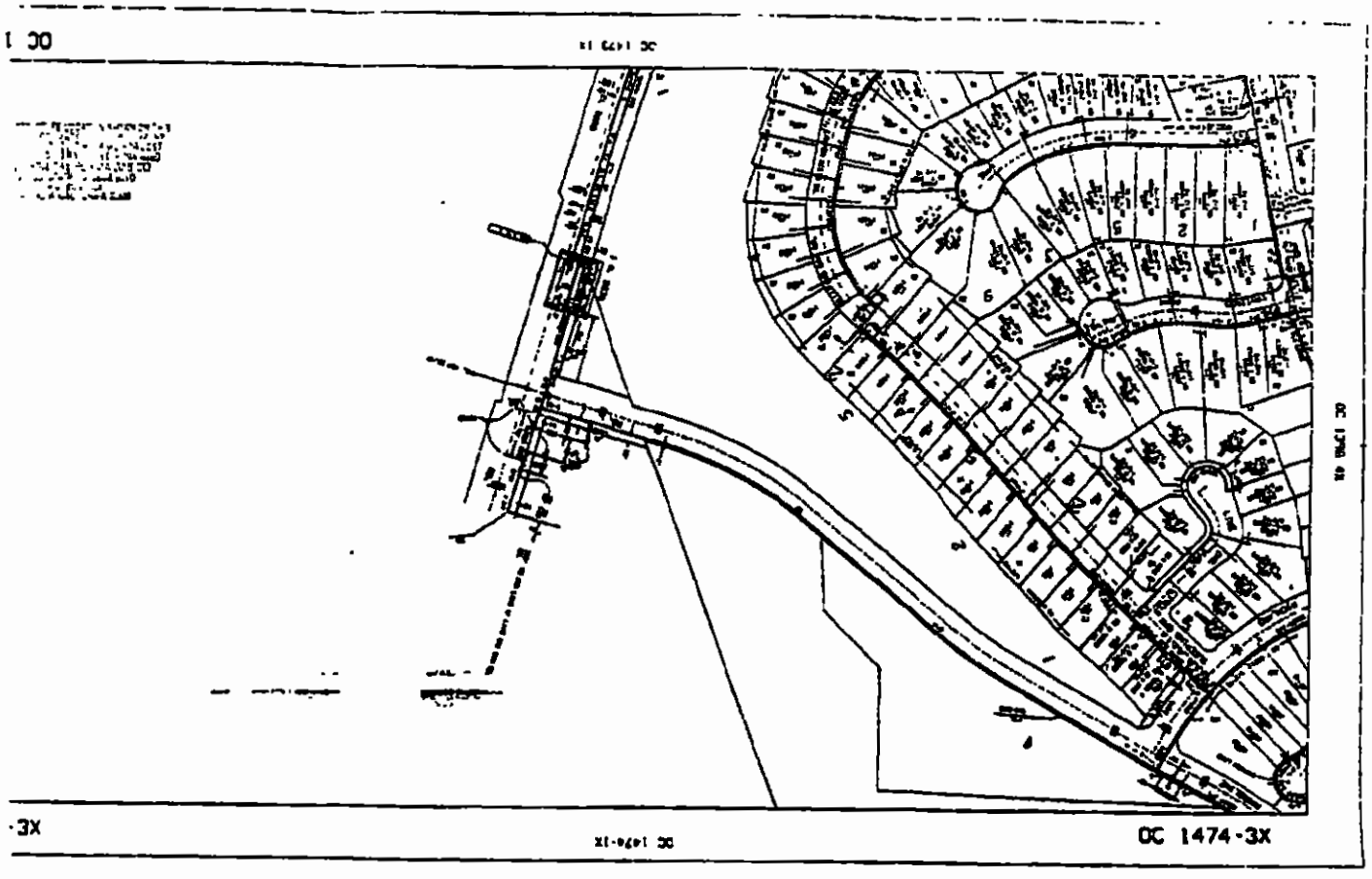
Sincerely,

Robert Warth

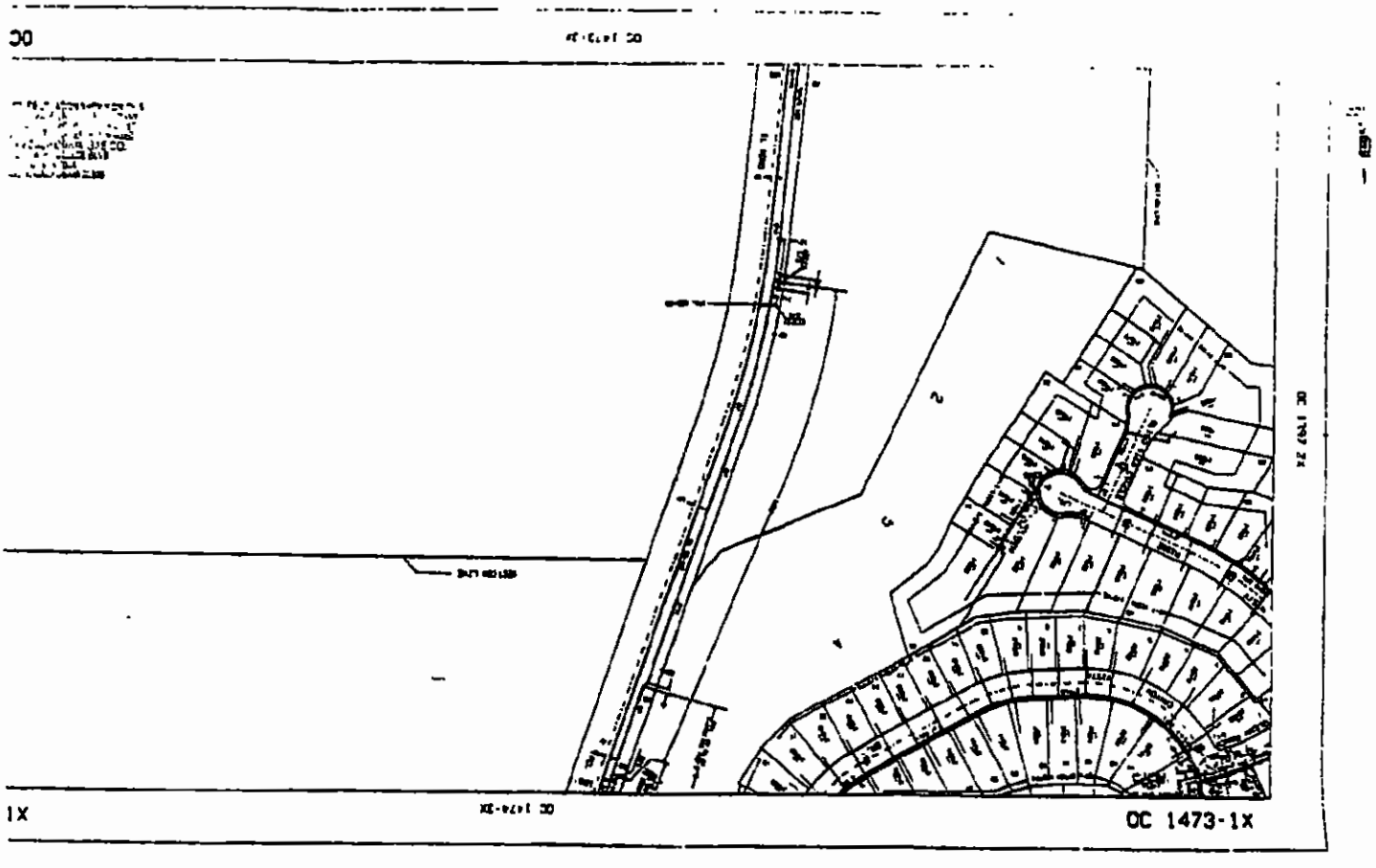
Robert S. Warth
Technical Supervisor

tap
EIRCORES.DOC

Attachment D



Attachment D



Attachment D

RECEIVED
JAN 29 1997

CHARLES KINGMAN MITCHELL
& ASSOCIATES
LAWYERS
4676 ADMIRALTY WAY
SUITE 300
MARINA DEL REY, CALIFORNIA 90292-6696
TELEPHONE (310) 574-6303
FACSIMILE (310) 574-6323

January 27, 1997

Manager, Environmental and Project Planning
300 N. Flower, Room 321
Santa Ana, California 92702-4048

Att'n: Mr. Raymond H.C. Brantley

Re: Saddleback Meadows:

Dear Mr. Brantley:

As you probably know, we are the attorneys for the Vedanta Society of Southern California ("Vedanta"). Vedanta owns the Ramakrishna Monastery and surrounding land adjacent to O'Neill Regional Park at 19961 Live Oak Canyon Road in Trabuco Canyon.

We are writing now to thank you for the opportunity to comment on the Notice of Preparation ("NOP") Dated December 24, 1997, and to avail ourselves of that opportunity.

As a threshold matter we note that the NOP refers to 705 manufactured homes (i.e., a trailer park) but the Initial Study ("Study") calls for development of 318 single-family detached residential units. We suppose the reason for this is that the Applicant has recycled its documents from its failed attempt to develop the same land last year.

This would also account for certain omissions in the Study. We believe that "potentially significant impact" should be found in the areas of "population and housing," "public services" and "utilities and service systems." These items were erroneously omitted from the previous Environmental Analysis Checklist but should be included in this one. (We note that under "Public Services" in the Environmental Analysis Checklist potential significant impacts <u>are</u> noted, as they should be.)

We must respectfully disagree with the "Environmental Findings" which conclude that "Adverse Impacts on Humans" will be "Significant Unless Mitigated." As the previous rounds of hearings revealed, the correct category is "Potentially Significant" because adequate mitigation is not possible.

In the "Environmental Checklist" there are numerous debatable

conclusions, and some that are downright wrong. Please review the following items:

2 a) and b);
3 a), b), d), e), f), g), h);
4 f)
5 a), c);
6 a) and b);
9 c);
10 a), b), c), d) and e);
11 b) and c);
13 b) and e);
14 c), d) and e)
15 a), b), c), d) and e)

Any EIR that follows the Environmental Findings set forth in the NOP will necessarily be flawed as was the previous EIR upon which this most recent NOP seems to be based. In essence the NOP and accompanying documents ignore or gloss over significant problems, some of which will prove to be insurmountable.

We wish to observe, finally, that the previous Board of Supervisors in voting unanimously to disapprove this project's previous incarnation stated that the land was unbuildable due to the ongoing ancient landslides that underlie it. That Board recommended that the land be returned to acreage, and we submit that this is the only wise course of action. The Applicant does not have a vested right to develop this property, contrary to what it has stated publicly.

Again, please accept our thanks for this opportunity to comment.

Yours very truly,

Charles K. Mitchell

CKM/ns

U.S. Fish & Wildlife Service
2730 Loker Avenue West
Carlsbad, CA 92008
(619) 431-9440
FAX: (619) 431-9618

CA Dept. of Fish & Game
1416 Ninth Street
PO Box 944209
Sacramento CA 94244-2090
(916) 653-9767
FAX: (916) 653-2588

January 30, 1997

Mr. Raymond Brantley
EMA/Environmental & Project Planning
300 N. Flower St., Room 321
P.O. Box 4048
Santa Ana, California 92702-4048

Notice of Preparation to Prepare a Draft Environmental Report (DEIR) No. 566 for Saddleback Meadows Residential Development, Orange County, California.

Dear Mr. Brantley:

The U. S. Fish and Wildlife Service (Service) and California Department of Fish and Game (Department) Natural Community Conservation Planning (NCCP) program staff (i.e., "agencies") have reviewed the above referenced document. The project is located within the Southern Subregion Orange County NCCP Planning Area. The preferred project alternative proposes the phased development of 705 manufactured, single-family residential units on a 222.9-acre site near the intersection of El Toro Road and Live Oak Canyon Road. A total of 10% of the project site is proposed to remain as open space. There are two County of Orange (County) staff alternatives presented. Staff Alternative 'A' would allow 150 sf units with a minimum lot size of 20,000 feet^2. Staff Alternative 'B' would reduce the number of dwelling units on the project site to no more than 100 on approximately 30 acres. The proposed project may conflict with the earlier-adopted Foothill-Trabuco and Aliso Creek Corridor Specific Plans.

The NOP outlines the project chronology from 1978. The agencies have formally commented at different stages of the proposed project. We have also met with the project applicant and their consultants, including a meeting at the project site on May 20, 1996. On June 29, 1994, the Service wrote a letter stating that project approval must be deferred until the Southern Subregion NCCP was finalized. In 1996, both agencies commented on DEIR No. 561. The Service letter stated that the location of this development within and adjacent to occupied habitat of rare species could compromise the NCCP reserve and its ability to function as a wildlife corridor through the direct and indirect impacts of habitat destruction, fragmentation, introduction of exotic species, noise, and lighting. Our comments were based upon a project alternative that provided more open space than the proposed preferred alternative.

The agencies offer the following specific information and recommendations to assist the County in planning for the preservation of sensitive wildlife species, habitats, and wildlife corridors within the proposed project area, and as a means to assist you in complying with pertinent

statutes. To facilitate the evaluation of the proposed project from the standpoint of environmental resource planning, we request that the DEIR contain the following specific information:

1) A complete discussion of the purpose and need for the project and each of the project alternatives.

2) A complete description of the proposed project, including all practicable alternatives that have been considered to reduce project impacts to wetland areas, coastal sage scrub, and other rare habitat types and species.

3) Descriptions of the biological resources associated with each habitat type. These descriptions should include both qualitative and quantitative assessments of the resources present on the proposed project site, such as coastal sage scrub, southern maritime chaparral, oak woodland, southern willow scrub, mulefat scrub, and other wetlands. Information from EIR No. 561 and other sources should be updated as necessary. Maps and tables should be used to summarize these data.

4) Specific acreage and descriptions of coastal sage scrub within the project area and impacts due to project alternatives.

5) An assessment of direct, indirect, and cumulative project impacts to wildlife and associated habitats as a result of this project and other reasonably expected projects. All facets of the project (e.g., construction, implementation, operation and maintenance) should be included in this assessment.

6) Cumulative impacts should include an adequate discussion of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, pursuant to §15130 of the CEQA Guidelines. This discussion should include projects such as the proposed Live Oak Plaza and Foothill Ranch projects.

7) Available data in EIR No. 561 regarding coastal California gnatcatcher (*Polioptila californica californica*) surveys indicated that surveys were done in 1993 and 1994. The agencies accept survey results as valid for only 12 months. Gnatcatchers are known to occur adjacent to the proposed project area. We suggest that updated surveys be done for this species. The updated survey protocol includes a total of seven surveys in the breeding season or nine in the non-breeding season.

8) An assessment of existing wildlife corridors and impacts due to the proposed project and its alternatives. The agencies recommend that the DEIR disclose and analyze any

impacts within this linkage area by utilizing aerial photographs and graphic techniques such as maps and tables. Data from the mountain lion telemetry studies conducted by Paul Beier Ph.D., and other applicable investigations conducted in the area should be included in this assessment. We suggest that this assessment of wildlife corridors include a field survey using applicable techniques to determine wildlife use within the proposed project area. These techniques should include but not be limited to one or more of the following: track pads, scent stations, wildlife sign identification, and automatic photographic techniques.

9) A list of Federal candidate, proposed or listed species, state-listed species, and locally sensitive species that are on or near the project site should be included with a detailed discussion of these species, including information pertaining to their local status and distribution. The Service will provide a list of these species in a separate letter. The real and anticipated impacts of the project on these species should be fully addressed.

10) The status and likely impacts to botanical resources, including rare plants, should be reassessed. A literature search should be conducted, including a review of the Natural Diversity Database maintained by the State of California, for species that are Federal and State listed, proposed, candidate, or are otherwise considered to be endemic or rare by knowledgable authorities such as the California Native Plant Society. These species of interest for this proposed project would include but not necessarily be limited to Catalina mairposa lily (*Calochortus catalinae*) and intermediate mariposa lily (*Calochortus weedii ssp. intermedius*).

11) Surveys should be conducted for the Quino checkerspot (*Euphydryas editha quino*), a Federal endangered species. The biologist conducting this survey should contact the Carlsbad Field Office to obtain the most current survey guidelines.

12) The current status of fairy shrimp on the project site should be discussed. This would include the endangered Riverside fairy shrimp (*Streptocephalus wootoni*), the proposed endangered San Diego fairy shrimp (*Branchinecta sandiegoensis*) and the threatened vernal pool fairy shrimp (*Branchinecta lynchi*). Riverside fairy shrimp is known to occur on the proposed project site.

13) Specific mitigation plans to fully offset project-related impacts, including proposals for mitigating the cumulative impacts of direct and indirect habitat loss, degradation, or modification. The project site supports significant biological resources and is part of a regional wildlife corridor. Adverse project-related impacts should be mitigated, to the maximum extent practicable, through on-site conservation or revegetation of impacted habitat types. The objective of each mitigation plan should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. These mitigation

plans involving restoration and enhancement should be prepared by persons with specific expertise on southern California ecosystems and state-of-the-art native plant revegetation techniques. Each plan should include, at a minimum: a) the location of the mitigation site; b) the species, actual number, and size of the plants to be used (seeds and seedlings should be obtained from an appropriate on-site location or from a site in the immediate vicinity of the project site); c) a schematic layout depicting the arrangement of the plants within the compensation area; d) time of year that planting will occur; e) identification of the irrigation methodology to be employed; f) measures to be taken to control exotic vegetation on site; g) a detailed monitoring program that includes provisions for replanting areas where planted materials have not survived; and h) identification of the agency or party responsible for assuring the successful creation of the mitigation habitat and providing for the perpetual conservation of the restoration site.

14) An analysis of the effects of the project on the hydrology of any riparian or wetland communities within the sphere of influence of the project. Of particular importance is an analysis of the adequacy of proposed means to convey major flood or runoff flows without impacting vegetation off-site or in the restoration area. Also of great interest would be an analysis of the effects on hydrology of the Riverside fairy shrimp occupied habitat due to the proposed project.

15) Identification of methods to be employed to prevent soil erosion and siltation to adjacent areas designated as open space and NCCP reserve lands.

16) Measures to be taken to perpetually protect habitat values that are created during restoration (mitigation). Issues that should be addressed include restrictions on vehicle and people access, proposed land dedications, monitoring and management programs, control of illegal dumping, restrictions on lighting near mitigation areas, etc.

17) A thorough analysis of expected noise impacts on avian species and other wildlife and measures to be taken to mitigate any adverse impacts resulting from noise levels.

The agencies appreciate working with the County on NCCP conservation planning issues. Lands within the proposed project area are important in conservation planning for the Southern Subregion NCCP Reserve in Orange County. The area of the proposed project is also the only linkage to the NCCP Central Subregion in Orange County. An improperly implemented project would permanently destroy the integrity of the linkage between the Subregion reserves.

If you have any questions or comments please contact Liam H. Davis, Associate Wildlife Biologist (Department) at 619-467-4207 or Robert James, Fish and Wildlife Biologist (Service) at 619-431-9440.

Sincerely,

for Gail C. Kobetich
Field Supervisor
U.S. Fish and Wildlife Service

for Ron Rempel
NCCP Program Manager
California Department of Fish and Game

cc: Department of Fish and Game (B. Tippets, P. Wolf, L. Davis, S. Harris, T. Dickerson)
U.S. Fish and Wildlife Service (D. Harlow, B. James)

1-6-97-TA-66

Attachment D
NO.791 P003
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FEB 27 1997

STAFF MEMBERS

Bruce Boner, General Manager
Bowie, Arneson, Kadi, Wiles
and Giannone, Legal Counsel
Carl R. Schoonover, Treasurer

TRABUCO CANYON
WATER DISTRICT

BOARD OF DIRECTORS

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Mike Safranski, Vice President
Corinne Loskot, Director
Jim Haselton, Director
Matthew Disston, Director

February 25, 1997

Raymond H. C. Brantley/William Grieman
County of Orange
Planning & Development Services Department
P. O. Box 4048
Santa Ana, California 92702-4048

Re: Revised Notice of Intent to Prepare a Draft Environmental Impact Report #566
Project Title: Saddleback Meadows Development
Applicant: California Quartet, Inc.

Gentlemen:

Trabuco Canyon Water District ("TCWD") is in receipt of the Notice of Preparation (Revised) dated February 6, 1997 for the above-captioned matter.

TCWD responds that it will provide water to and sewering of the property, subject to receipt of all applicable fees, approval of appropriate agreements, and the construction of water and sewer facilities to meet the needs of the project.

If you require further information, please contact the undersigned at (714) 858-0277.

Very truly yours,

Bruce Boner

Bruce Boner
General Manager

BB:ses

32003 Dove Canyon Drive, Trabuco Canyon, CA 92679 · 714/858-0277 · Fax: 714/858-3025
Mailing Address: P.O. Box 500, Trabuco Canyon, CA 92678

UNITED STATES MARINE CORPS
MARINE CORPS AIR BASED WESTERN AREA EL TORO
PO BOX 95001
SANTA ANA CA 92709-5001

IN REPLY REFER TO:
11103.15
AQ/SaddleBM
26 Feb 1997

RECEIVED
FEB 27 1997

COUNTY OF ORANGE
ATTN MR RAYMOND H C BRANTLEY
ENVIRONMENTAL & PROJECT PLANNING
P O BOX 4048
SANTA ANA CA 92702-4048

REVISED NOTICE OF INTENT TO PREPARE A DRAFT ENVIRONMENTAL REPORT #566 - SADDLEBACK MEADOWS DEVELOPMENT

Dear Mr. Brantley,

The above Revised Notice of Intent has been reviewed and we have no comments at this time.

Thank you for the opportunity to comment on this land use proposal. If you have any further questions, please contact Ms. Desiree Garrison at (714) 726-3702.

Sincerely,

D. P. PENDER
Colonel, U.S. Marine Corps
Community Plans and Liaison Officer
By direction of the Commander

RECEIVED
FEB 18 1997

February 13, 1997

Mr. Raymond H.C. Brantley
Environmental and Project Planning Division
Planning and Development Services Department
County of Orange
300 North Flower, Room 321
Santa Ana, CA 92702-4048

RE: **Comments on the Notice of Preparation for the Draft EIR for the County of Orange, Saddleback Meadows Development - SCAG No. I9700056**

Dear Mr. Brantley:

Thank you for submitting the **Notice of Preparation for the Draft EIR for the County of Orange, Saddleback Meadows Development** to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

In addition, The California Environmental Quality Act requires that EIRs discuss any inconsistencies between the proposed project and the applicable general plans and regional plans (Section 15125 [b]). If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Policies of SCAG's Regional Comprehensive Plan and Guide which may be applicable to your project are outlined in the attachment. We suggest that the appropriate policies be addressed in the DEIR.

Please provide a minimum of 45 days for SCAG to review the DEIR when this document is available. If you have any questions regarding the attached comments, please contact Bill Boyd at (213) 236-1960.

Sincerely,

VIVIANE DOCHE-BOULOS
Intergovernmental Review

H:\ORCOSADM.NOP

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

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County of Orange: Marilyn Aberbach, Orange County • Ron Bates, Los Alamitos • Art Brown, Buena Park • Jan Debay, Newport Beach • Richard Dixon, Lake Forest • Evelyn Cavo, Costa Mesa • Cathryn Haggard, San Clemente • Willy Lim, La Palma • Bev Perry, Brea

County of Riverside: Bob Buster, Riverside County • Dennis Draeger, Calimesa • Dick Kelly, Palm Desert • Ron Loveridge, Riverside • Ron Roberts, Temecula

County of San Bernardino: Larry Walker, San Bernardino County • Bill Alexander, Rancho Cucamonga • Jon Bagley, Twentynine Palms • Charles Bartott, Colton • David Eshleman, Fontana • Tom Minor, San Bernardino • Gwenn Norton-Perry, Chino Hills

County of Ventura: Judy Mikels, Ventura County • Andrew Fox, Thousand Oaks • Stan Daily, Camarillo • John Melton, Simi Valley

Printed on Recycled Paper 9/96

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR COUNTY OF ORANGE, SADDLEBACK MEADOWS DEVELOPMENT

PROJECT DESCRIPTION

The proposed Project involves the phased development of 705 manufactured single-family units and a 1.7 acre neighborhood commercial center on a 222.23-acre site on the easterly side of El Toro Road. Gross residential density proposed is 3.17 dwellings per acre, with an average lot size of 3,900 square feet. Seventy one percent (158 acres) of the site would be impacted, and 64 acres are proposed as open space. The site is located approximately 1/2 mile south of the El Toro Road/Live Oak Canyon Road intersection in the Foothill/Trabuco Canyon Specific Plan area of unincorporated Orange County.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The Growth Management Chapter (GMC) of the Regional Comprehensive Plan and Guide (RCPG) contains the following policy that is particularly applicable and should be addressed in the Draft EIR for the Project[1]:

- *The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.*

The Regional Mobility Element (RME) also has policies pertinent to this proposed project[2]. This chapter links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. Among the relevant policies of this chapter are the following:

- *Promote Transportation Demand Management (TDM) programs along with transit and ridesharing facilities as a viable and desirable part of the overall mobility program while recognizing the particular needs of individual subregions.*

[1] See Endnote.

[2] See Endnote.

- *Support the extension of TDM program implementation to non-commute trips for public and private sector activities.*

- *Support the coordination of land use and transportation decisions with land use and transportation capacity, taking into account the potential for demand management strategies to mitigate travel demand if provided for as a part of the entire package.*

- *Urban form, land use and site-design policies should include requirements for safe and convenient non-motorized transportation, including the development of bicycle and pedestrian-friendly environments near transit.*

- *The development of the regional transportation system should include a non-motorized transportation system that provides an effective alternative to auto travel for appropriate trips. The planning and development of transportation projects and systems should incorporate the following, as appropriate:*

  a. *Provision of safe, convenient, and continuous bicycle and pedestrian infrastructure to and throughout areas with existing and potential demand such as activity areas, schools, recreational areas (including those areas served by trails), which will ultimately offer the same or better accessibility provided to the motorized vehicle.*

  b. *Accessibility to and on transit (bus terminals, rail stations, Park-And-Ride lots), where there is demand and where transit boarding time will not be significantly delayed.*

  c. *Maintenance of safe, convenient, and continuous non motorized travel during and after the construction of transportation and general development projects. Existing bikeways and pedestrian walkways should not be removed without mitigation that is as effective as the original facility.*

- *Entities and programs that currently support the auto should be encouraged to provide the same types of services for non-motorized transportation, including education, promotion, and enforcement.*

<u>GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL STANDARD OF LIVING</u>

The Growth Management goals to develop urban forms that enable individuals to spend less income on housing cost, that minimize public and private development costs, and that enable firms to be more competitive, strengthen the regional strategic goal to stimulate the regional economy. The evaluation of the proposed project in relation to the following policies would be intended to guide efforts toward achievement of such goals and does not infer regional interference with local land use powers.

- *Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.*

- *Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities.*

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL QUALITY OF LIFE

The Growth Management goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life, that accommodate a diversity of life styles, that preserve open space and natural resources, and that are aesthetically pleasing and preserve the character of communities, enhance the regional strategic goal of maintaining the regional quality of life. The evaluation of the proposed project in relation to the following policies would be intended to provide direction for plan implementation, and does not allude to regional mandates.

- *Support provisions and incentives created by local jurisdictions to attract housing growth in job rich subregions and job growth in housing rich subregions.*

- *Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.*

- *Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.*

- *Support and encourage settlement patterns which contain a range of urban densities.*

- *Encourage planned development in locations least likely to cause environmental impact.*

- *National Forests shall remain permanently preserved and used as open space. SCAG*

shall support policies and actions that preserve open space areas identified in local, state, and federal plans.

- *Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.*

- *Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.*

- *Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.*

- *Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources,measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.*

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended guide direction for the accomplishment of this goal, and does not infer regional mandates and interference with local land use powers.

- *Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.*

- *Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.*

AIR QUALITY CHAPTER CORE ACTIONS

The Air Quality Chapter core actions related to the proposed project include:

- *Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.*

- *Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.*

WATER QUALITY CHAPTER RECOMMENDATIONS AND POLICY OPTIONS

The Water Quality Chapter core recommendations and policy options relate to the two water quality goals: to restore and maintain the chemical, physical and biological integrity of the nation's water; and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters.

- *Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.*

- *Coordinate watershed management planning at the subregional level by (1) providing consistent regional data; (2) serving as a liaison between affected local, state, and federal watershed management agencies; and (3) ensuring that watershed planning is consistent with other planning objectives (e.g., transportation, air quality, water supply).*

- *Support regional efforts to identify and cooperatively plan for wetlands to facilitate both sustaining the amount and quality of wetlands in the region and expediting the process for obtaining wetlands permits.*

- *Clean up the contamination in the region's major groundwater aquifers since its water supply is critical to the long-term economic and environmental health of the region. The financing of such clean-ups should leverage state and federal resources and minimize significant impacts on the local economy.*

- *Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.*

- *Ensure wastewater treatment agency facility planning and facility development be*

consistent with population projections contained in the RCPG, while taking into account the need to build wastewater treatment facilities in cost-effective increments of capacity, the need to build well enough in advance to reliably meet unanticipated service and storm water demands, and the need to provide standby capacity for public safety and environmental protection objectives.

CONCLUSIONS

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed project should be implemented and monitored, as required by CEQA.

ENDNOTE

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Notes and Authorities

SCAG is a ***Joint Powers Agency*** established under California Government Code Section 6502 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's ***Metropolitan Planning Organization*** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. §134(g)-(h), 49 U.S.C. §1607(f)-(g) et seq., 23 C.F.R. §450, and 49 C.F.R. §613. SCAG is also the designated ***Regional Transportation Planning Agency***, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the ***South Coast Air Quality Management Plan***, pursuant to California Health and Safety Code Section 40460(b)-(e). SCAG is also designated under 42 U.S.C. §7504(a) as a ***Co-Lead Agency*** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

SCAG is responsible under the Federal Clean Air Act for determining ***Conformity*** of Projects, Plans and Programs to the Air Plan, pursuant to 42 U.S.C. §7506.

Pursuant to California Government Code Section 65089.2, SCAG is responsible for ***reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans*** required by Section 65080 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for ***Inter-Governmental Review*** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A 95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21083 and 21087, ***Environmental Impact Reports*** of projects of regional significance for consistency with regional plans [California Environmental Quality Act Guidelines Sections 15206 and 15125(b)].

Pursuant to 33 U.S.C. §1288(a)(2) (Section 208 of the Federal Water Pollution Control Act), SCAG is the authorized ***Areawide Waste Treatment Management Planning Agency***.

SCAG is responsible for preparation of the ***Regional Housing Needs Assessment***, pursuant to California Government Code Section 65584(a).

SCAG is responsible (with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council) for preparing the ***Southern California Hazardous Waste Management Plan*** pursuant to California Health and Safety Code Section 25135.3.

The Gas Company

Orange Coast Region

February 18, 1997

County Of Orange
Planning & Developmenbt Services Dept.
P.O.Box 4048
Santa Ana, Ca. 92702-4048

Attention Raymond H.C. Brantley

Southern California Gas Company
Mailing Address
Box 3334
Anaheim, CA
92803-3334

SUBJECT: WILL SERVE - Saddleback Meadows Development

This letter is not to be interpreted as a contractual commitment to serve the proposed project, but only as an information service. Its intent is to notify you that the Southern California Gas Company has facilities in the area where the above named project is proposed. Gas service to the project could be served from an existing main as shown on the attached atlas sheet without any significant impact on the environment. The service will be in accordance with the company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.

The availability of natural gas service, as set forth in this letter, is based upon present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under the jurisdiction of the federal regulatory agencies. Should these agencies take any action which affects gas supply or the condition under which service is available, gas service will be provided in accordance with revised conditions.

Residential (System Area Average)	Yearly
Single-family	750 therms/year/dwelling unit
Multi-family units	475 therms/year/dwelling unit

These averages are based on total gas consumption in residential units served by Southern California Gas Company during 1985 and it should not be implied that any particular home, apartment or tract or homes will use these amounts of energy.

Estimates of gas usage for non-residential projects are developed on an individual basis and are obtained from a Market Services Staff representative by calling (800) 427-2000. Market Services can also provide assistance in selecting the most energy efficient appliances or systems for a particular project.

Sincerely,

Robert S. Warth
Technical Supervisor

tap
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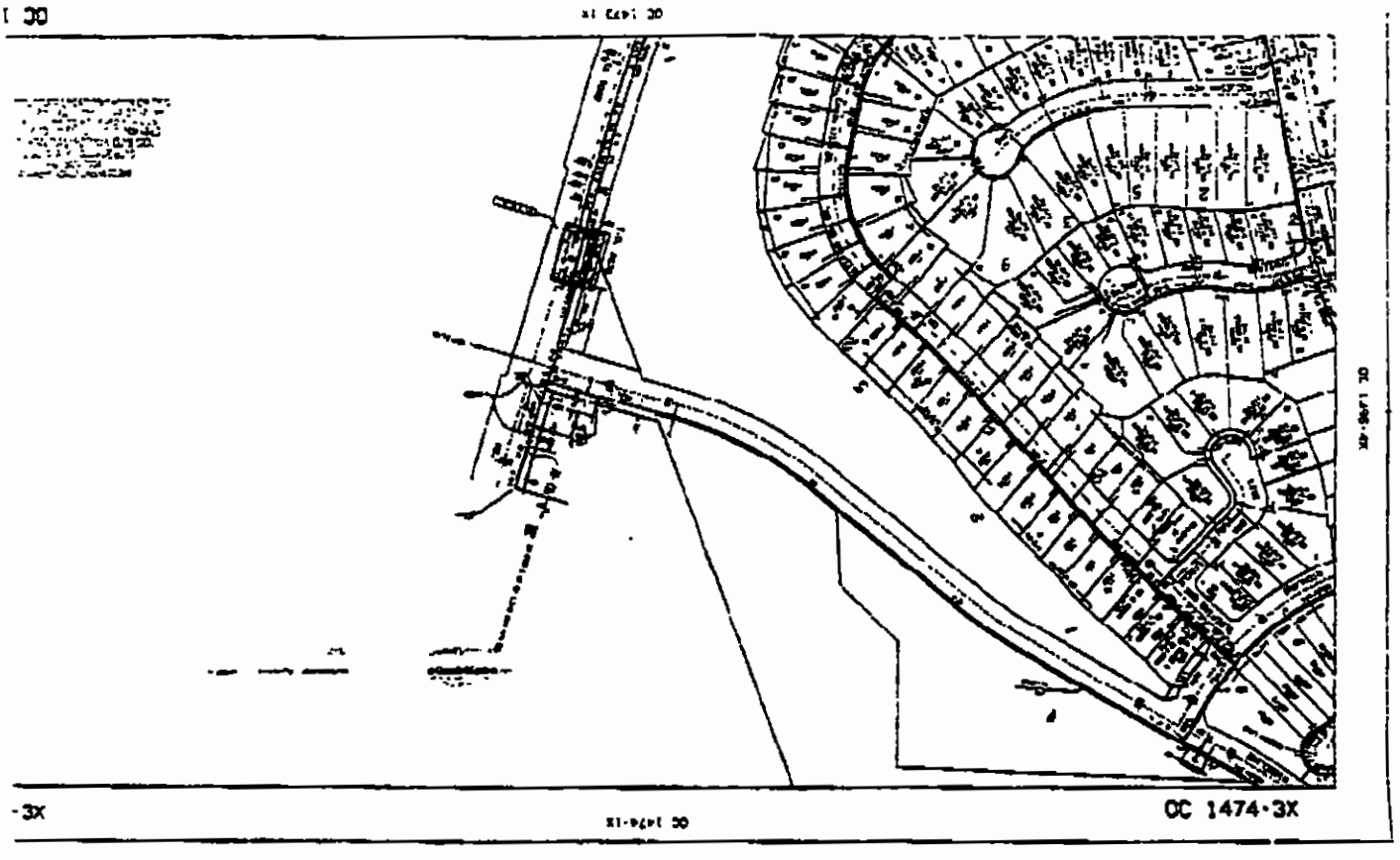
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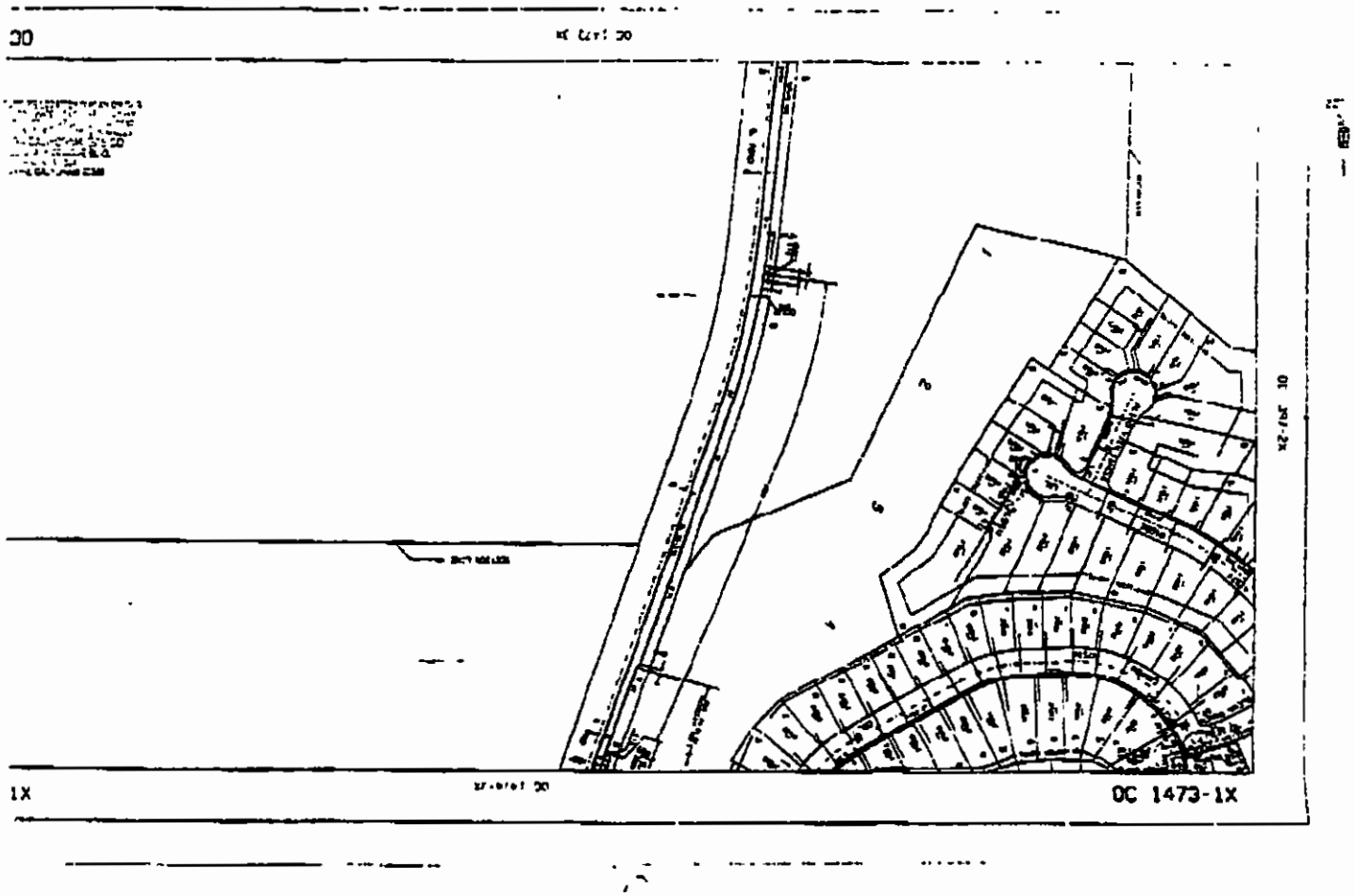
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SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072

(Revised NOP)
NOP Comment Period 2

NOP Commentators

Public Agencies

	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Feb. 13, 1997 1. County of Orange Environmental Resources Chris Compton, Manager				X																X	X										X	
Mar 10, 1997 2 County of Orange Jerold M Kacsir, Manager Planning & Development Services Dept.			X		X	X	X	X	X	X				X		X	X	X						X								
Feb. 13, 1997 3. So. Calif. Association of Governments Viviane Doche-Boulos, Intergovernmental Review						X	X	X		X		X		X						X						X	X			X		
Feb 18, 1997 4 So Calif. Gas Company Robert S Warth, Technical Supervisor																			X													

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072

(Revised NOP)
NOP Comment Period 2

NOP Commentators

Public Agencies

	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Mar 18, 1997 5. Orange County Fire Authority Laura Blaul, Deputy Fire Marshall Planning & Development													X			X																
Mar 7, 1997 6 State of California Department of Fish & Game Ron Rempel, NCCP Program Manager CDFG							X																									
Mar. 12, 1997 7 State of California Department of Fish & Game Patricia Wolf, Acting Regional Manager				X			X		X	X																X		X		X		
Mar. 5, 1997 8. State of California Department of Transportation Robert Joseph, Advance Planning Branch																															X	

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072

(Revised NOP)
NOP Comment Period 2

NOP Commentators

Public Agencies

	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Feb. 25, 1997 9. Trabuco Canyon Water District Bruce Boner, General Manager																						X										
Mar. 7, 1997 10 United States Fish & Wildlife Service Gail Kobetich, Field Supervisor							X																									
Feb. 27, 1997 11. United States Marine Corps. D. P. Pender, Colonel Community Plans & Liaison Officer																															X	

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072 **(Revised NOP)** **NOP Comment Period 2** **NOP Commentators** **Private Citizens**	**Project Description**	**Related Projects**	**Grading**	**Hydrology**	**Geologic Hazards/Landslides**	**Air Quality**	**Plant/Animal Life**	**Noise**	**Land Use/Compatibility**	**Natural Resources**	**Risk of Upset / Human Health**	**Population/Housing**	**Right of Way / Access/Trails**	**Traffic**	**Fuel Modification**	**Fire & Police Protection**	**Schools & Libraries**	**Parks & Recreation**	**Energy/Utilities**	**Water Supply/Water Quality**	**Storm Water Drainage**	**Sewers**	**Solid Waste**	**Aesthetics / View / Light & Glare**	**Cultural/Scientific Resources**	**Long Term Implication**	**Growth Inducing Impacts**	**Alternatives**	**General Comments**	**CEQA Procedures**	**Other/NON CEQA**	**No Comments**
Mar 7, 1997 1 Diequeno/Coastal Gabrielleno Velasques, Jim Tribal Spokesman																									X							
Feb. 26, 1997 2 Finn, Donald R												X		X										X								
Feb. 17, 1997 3 Loeper, James & Loeper, Dawn					X		X			X		X	X	X		X								X								
Feb 28, 1997 4. Ross, William D., Esq. on behalf of California Quartet, Inc.																												X		X	X	

SADDLEBACK MEADOWS SUBSEQUENT DRAFT EIR SCH NO. 96121072 (Revised NOP) NOP Comment Period 2 NOP Commentators Private Citizens	Project Description	Related Projects	Grading	Hydrology	Geologic Hazards/Landslides	Air Quality	Plant/Animal Life	Noise	Land Use/Compatibility	Natural Resources	Risk of Upset / Human Health	Population/Housing	Right of Way / Access/Trails	Traffic	Fuel Modification	Fire & Police Protection	Schools & Libraries	Parks & Recreation	Energy/Utilities	Water Supply/Water Quality	Storm Water Drainage	Sewers	Solid Waste	Aesthetics / View / Light & Glare	Cultural/Scientific Resources	Long Term Implication	Growth Inducing Impacts	Alternatives	General Comments	CEQA Procedures	Other/NON CEQA	No Comments
Feb 28, 1997 5. Siegel, Bernard & Cynthia						X						X					X							X								
Mar 5, 1997 6. Verlyn Jensen, Law Offices of (St. Michael's Abbey)			X		X		X		X		X	X												X							X	
Mar 7, 1997 7 Wallace, Elizabeth Representative, Portola Hills			X		X		X		X	X																			X		X	

ENVIRONMENTAL MANAGEMENT AGENCY
P.O. BOX 4048
SANTA ANA, CALIFORNIA 92702-4048

NOTICE OF PREPARATION

Date December 24, 1996

Subject: Notice Of Intent To Prepare A Draft Environmental Impact Report # 566

Project Title: Saddleback Meadows Residential Development

Applicant. California Quartet, Inc.

The Orange County Environmental Management Agency has conducted an Initial Study for the subject project and has determined that an Environmental Impact Report is necessary. The County of Orange will be the Lead Agency for the subject project and will prepare the EIR. In order for the concerns of your agency to be incorporated into the Draft EIR, we need to know the views of your agency as to the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency must consider the EIR prepared by the County of Orange when considering your permit or approval for the project. The project descnption, location, and an analysis indicating the probable environmental effects of the proposed action are contained in the attached materials.

Pursuant to Section 21080.4 of CEQA, your response must be sent as soon as possible but not later than 30 days after receipt of this notice.

If any significant changes in the proposed project occur, we will advise you If you have need for additional information, contact Raymond H C Brantley of the Environmental & Project Planning Division at 834- 5550 .

Submitted by:

Raymond H C Brantley

Attachment: Initial Study

F0250-103 1 R8/85

PUBLIC NOTICE

NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT REPORT

EIR 566

Pursuant to Public Resources Code Section 21165, the County of Orange is the Lead Agency responsible for preparing an environmental impact report (EIR) addressing potential impacts associated with the proposed Saddleback Meadows project located approximately 1/2 mile of the El Toro Road/Live Oak Canyon Road intersection in the Foothill/Trabuco Specific Plan area of unincorporated Orange County. The Project proposes the phased development of 705 manufactured, single-family residential units on a 229.2-acre site on the easterly side of El Toro Road. The gross residential density proposed is 3.17 dwelling per acre, with an average lot size of 3,900 square feet and a minimum lot size of 3,200 square feet. Sixty-nine percent (69%), or 158 acres of the project site would be impacted; 71 acres are proposed for open space.

At a minimum, the EIR will examine the potential impacts resulting from the project in the following topical areas: Land Use; Affordable Housing; Geophysical; Grading; Water; Transportation; Air Quality; Noise; Biological Resources; Aesthetics; Cultural/Scientific Resources; Recreation; Hazards; Public Services, including schools; and Cumulative Impacts. A more complete description of EIR requirements are included in the Notice of Preparation.

REVIEWING LOCATIONS

COPIES OF THE NOTICE OF PREPARATION (NOP) ARE AVAILABLE FOR PUBLIC REVIEW FROM DECEMBER 26, 1996 TO JAN. 31, 1997 AT THE FOLLOWING LOCATIONS.

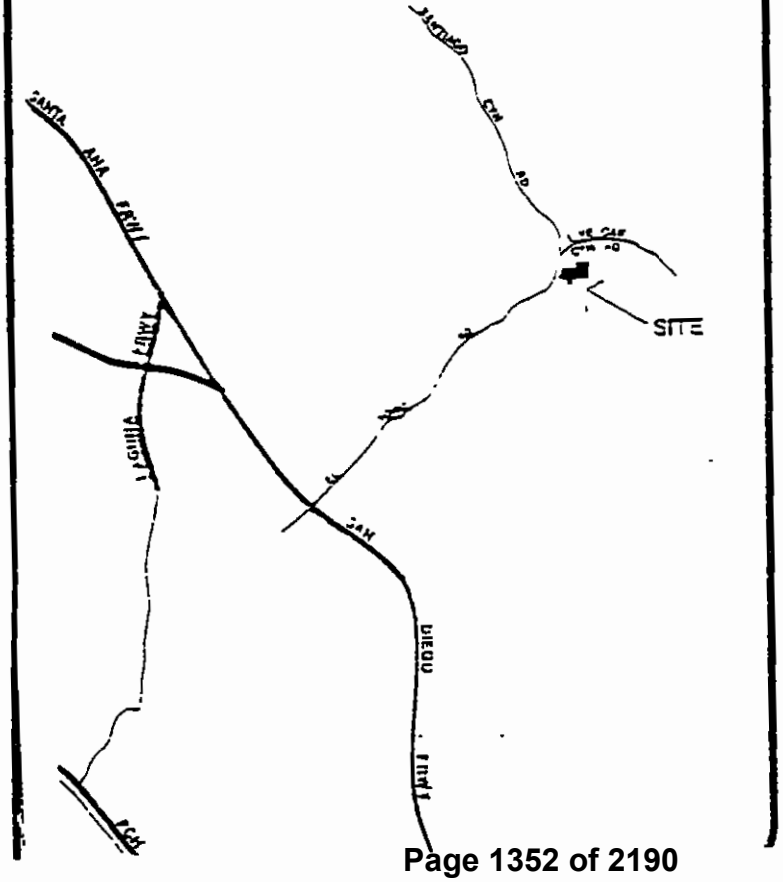
COUNTY: Planning & Development Services Dept.
Offices of Environmental & Project Planning Div.
Contacts. William Grieman - 834-5175
Raymond Brantley - 834-3763
ORANGE COUNTY BRANCH LIBRARIES:
24851 Chrisanta Dr., Mission Viejo
28192 Silverado Canyon Rd., Silverado
24672 Raymond Ave., El Toro
CAL-STATE UNIV., FULLERTON, Library Doc Sec
UC IRVINE, MAIN LIBRARY, Gov Pub Section

COPIES OF THE NOTICE OF PREPARATION HAVE BEEN PROVIDED TO THE FOLLOWING GROUPS·

Foothill-Trabuco Review Board Members: R. Brusca, R. Chandos, Ms M. E Park, T. Wiberg & D Edgar
Hidden Ridge HOA, c/o Ms. Marie Walsh
Portola Hills HOA I, c/o Rinevol Mgement Co
Portola Hills HOA II, c/o Marquis Mgt Co
Canyon View Homeowners Assoc.
Inter-Canyon League, c/o Bob Hunt
Natural History Foundation of O.C.
Calif. Native Plant Society
National Audubon Society, Inc.
Sierra Club-OC Chapter
Rural Cyns. Cnsrv. Fund, c/o Bruce Conn
O.C. Horsemen's Assoc.
ETI Corral 357, c/o D Carter

Address Comments to: Manager, Env & Proj Planning
300 N. Flower, Room 321, Santa Ana, CA 92702-4048

PROJECT LOCATION MAP



ENVIRONMENTAL MANAGEMENT AGENCY
P.O. BOX 4048
SANTA ANA, CA 92702-4048

INITIAL STUDY # GA 960048

PROJECT REF. SDLBK MD

INITIAL STUDY

1. **PROJECT TITLE:** Saddleback Meadows **PROJECT NUMBER:** GA 960048

2. **LEAD AGENCY:** Orange County Environmental Management Agency **LEAD DIVISION:** Environmental Planning Div.

3. **CEQA CONTACT PERSON:** Raymond H.C. Brantley **PHONE NUMBER:** (714) 834-3763

4. **PROJECT LOCATION:** Approx. 1/4 mile south of the intersection of El Toro Road and Live Oak Canyon Road, immediately north of the Hidden Ridge community, east of El Toro Road in the Foothill Trabuco Specific Plan area of unincorporated Orange County.

5. **PROJECT SPONSOR'S NAME:** Calif. Quartet, Ltd. **ADDRESS:** 1601 Dove St., Ste. 105 Newport Beach, CA 92660

6. **GENERAL PLAN DESIGNATION:** 1B and 1.2

7. **ZONING:** "S" "BWR" Foothill Trabuco Specific Plan; "SR" Overlay District

8. **DESCRIPTION OF PROJECT: (Describe the whole action involved)**
Development of 318 single-family detached residential units, associated infrastructure, a wildlife movement corridor, hiking/riding trail and biological resource enhancement on the 229.2 acre site.

9. **SOURCES OF INFORMATION: (Numbered)**
(1) Certified FEIRs 059 & 203; (2) Orange County General Plan (OCGP) Land Use Element; (3) Foothill-Trabuco Specific Plan; (4) Tentative Tract Map TT10692; (5) Preliminary Landscape Plan; (6) 4th Supplemental Geotechnical Rpt.; (7) Biological Assessment & Oak Tree Inventory; (8) Aliso Creek Corridor Specific Plan; (9) Phase I Grading Plan; (10) Original Grading Plan; (11) OCGP Noise Element; (12) OCGP Transportation Element; (13) SCAQMD Air Quality Handbook; (14) Letter to Tim Neely from US Fish & Wildlife Service; (15) OCGP Resources Element; (16) OCGP Recreation Element; (17) OCGP Safety Element; (18) OC Natural Community Conservation Planning Program Guidelines (19) Saddleback Meadows Information Booklet

10. **RESPONSIBLE AGENCIES:**
U.S. Fish & Wildlife Service, Calif. Dept. of Fish & Game; U.S. Army Corps of Engineers; Calif. Regional Water Quality Control Board

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated," as indicated on the attached Environmental Analysis Checklist

X	Land Use & Planning	X	Air Quality	X	Recreation
___	Population & Housing	X	Noise	___	Energy & Mineral Resources
X	Geophysical	X	Biological Resources	X	Hazards
X	Water	X	Aesthetics	___	Public Services
X	Transportation/Circulation	X	Cultural/Scientific Resources	___	Utilities & Service Systems

ENVIRONMENTAL FINDINGS

		POTENTIALLY SIGNIFICANT IMPACT	SIGNIFICANT UNLESS MITIGATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
A	**POTENTIAL TO DEGRADE** Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	X			
B.	**SHORT-TERM** Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	X			
C.	**CUMULATIVE IMPACTS** Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	X			
D.	**ADVERSE IMPACTS ON HUMANS**: Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

DETERMINATION

I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared ____

I find that although the proposed project **COULD** have a significant effect on the environment, there will not be a significant effect in this case because Mitigation Measures have been added to the project **A MITIGATED NEGATIVE DECLARATION** will be prepared ____

I find that the proposed project **MAY** have a significant effect on the environment which has not been analyzed previously Therefore, an **ENVIRONMENTAL IMPACT REPORT** is required. X

I find that although the proposed project could have significant effect(s) on the environment, all project impacts have been adequately analyzed and mitigated in a **PREVIOUS CEQA DOCUMENT** prepared and approved/certified pursuant to State and County CEQA Guidelines ____

I find that although the proposed project has been analyzed and mitigated as part of an earlier document prepared and approved/certified pursuant to State and County CEQA Guidelines, minor additions and/or clarifications are needed to make the previous documentation adequate to cover the project Therefore, an **ADDENDUM** will be prepared for the proposed project. ____

Raymond H C Brantley
Signature

December 24, 1996
Date

RD hdPCPE3 PM4(4178)

ENVIRONMENTAL ANALYSIS CHECKLIST

ISSUES & SUPPORTING DATA SOURCES:	Potential Signfcnt. Impact	Signfcnt. Unless Mtigtd	Less Than Signfcnt Impact	No Impact
1. LAND USE & PLANNING. Would the proposal:				
a) Conflict with general plan designation or zoning (source #(s):) (2)	___	___	___	X
b) Conflict with applicable environmental plans or policy of agencies with jurisdiction over the project? ( ) (3, 8, 9,. 18)	___	X	___	___
c) Affect agricultural resources or operations (e g , impacts to soil or farmlands, or impacts from incompatible land uses)? (2)	___	___	___	X
d) Disrupt or divide the physical arrangement of an established community (such as n low-income or minority community)? (N/A)	___	___	___	X
e) Conflict with adjacent, existing or planned, land uses? (3)	___	X	___	___
2. POPULATION & HOUSING. Would project:				
a) Cumulatively exceed adopted regional or local population projections? (2)	___	___	X	___
b) Induce substantial growth in an area directly or indirectly through project in an undeveloped area or extension of major infrastructure? (2)	___	___	X	___
c) Displace existing housing? (N/A)	___	___	___	X
3. GEOPHYSICAL. Would project result in or expose people to impacts involving:				
a) Local fault rupture? ( ) (6, 10)	___	___	X	___
b) Seismicity: ground shaking or liquefaction? (1, 6)	___	___	X	___
c) Seismic: seiche or tsunami? (1)	___	___	X	___
d) Landslides or mudslides? (1, 6, 9, 10, 19)	___	X	___	___
e) Erosion, changes in topography or unstable soil conditions from excavation, grading or fill? (6, 9)	___	X	___	___
f) Subsidence of the land? (1, 6)	___	X	___	___
g) Expansive soils? (1, 6)	___	X	___	___
h) Unique geologic or physical features? (1, 6)	___	X	___	___
4. WATER. Would the proposal result in:				
a) Changes in absorption rates, drain-age patterns, or the rate and amount of surface runoff? (9, 10)	___	X	___	___
b) Exposure of people or property to water related hazards such as flooding? (8)	___	___	X	___

ISSUES & SUPPORTING DATA SOURCES:	Potential Signfcnt Impact	Signfcnt. Unless Mtigtd	Less Than Signfcnt Impact	No Impact
4 WATER (Cont'd)				
c) Discharge into surface waters or other alteration of surface water quality (temperature, dissolved oxygen or turbidity)? (8)	___	___	X	___
d) Changes in the amount of surface water in any water body? (8)	___	___	X	___
e) Changes in currents, or the course or direction of water movements? (8)	___	___	X	___
f) Change in the quantity of ground water, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations? ( ) (8, 9)	___	___	X	___
g) Altered direction or rate of flow of groundwater? (9)	___	___	___	X
h) Impacts to groundwater quality? (9)	___	___	___	X
5. TRANSPORTATION/CIRCULATION Would the proposal result in:				
a) Increased vehicle trips or traffic congestion beyond adopted policies and/or forecasts? (12)	___	___	X	___
b) Safety hazards from design features (e.g sharp curves or dangerous intersections) or incompatible uses (e g farm equipment)? (12)	___	___	X	___
c) Inadequate emergency access or access to nearby uses? ( ) (3, 12)	___	___	X	___
d) Insufficient parking capacity on-site or off-site? (N/A)	___	___	___	X
e) Hazards or barriers for pedestrians or bicyclists? (3)	___	___	___	X
f) Conflicts with adopted policies supporting alternative transportation (e g bus turnouts, bicycle racks)? (12)	___	___	___	X
g) Rail, waterborne or air traffic impacts? (N/A)	___	___	___	X
6. AIR QUALITY. Would the proposal:				
a) Violate any SCAQMD standard or contribute to air quality deterioration beyond projections of SCAQMD? (13)	___	___	X	___
b) Expose sensitive population groups to pollutants in excess of acceptable levels? (13)	___	___	X	___
c) Alter air movement, moisture, or temperature, or cause any change in climate? (13)	___	___	X	___
d) Create objectionable odors? (13)	___	___	X	___

ISSUES & SUPPORTING DATA SOURCES:	Potential Signfcnt. Impact	Signfcnt. Unless Mitgtd	Less Than Signfcnt. Impact	No Impact
7. NOISE. Would the proposal:				
a) Increase existing noise levels? (1 , 11)	___	X	___	___
b) Expose people to noise levels exceeding adopted County standards? (11)	___	___	X	___
8. BIOLOGICAL RESOURCES. Would Project impact:				
a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals and birds)? (1 , 7 , 14 , 18 , 19)	X	___	___	___
b) Locally designated species (e g heritage trees)? (7)	X	___	___	___
c) Locally designated natural communities (e g oak forest, coastal habitat, etc)? (7 , 8 , 18)	X	___	___	___
d) Wetland habitat (e g. marsh, riparian and vernal pool)? (1 , 7 , 8 , 9 , 14 , 18 , 19)	X	___	___	___
e) Wildlife dispersal or migration corridors? (1 , 7 , 8)	___	X	___	___
f) Adopted conservation plans and policies (e g Resource Management Plan)? (3 , 8 , 18)	___	___	X	___
9. AESTHETICS. Would the proposal:				
a) Affect a scenic vista or view open to the public? (3)	X	___	___	___
b) Affect a designated scenic highway? (12 , 19)	X	___	___	___
c) Result in an offensive aesthetic effect? (3)	___	___	X	___
d) Create light or glare beyond the physical limits of the project site? (5)	___	___	X	___
10. CULTURAL/SCIENTIFIC RESOURCES Would the Project:				
a) Disturb paleo resources? (1)	___	X	___	___
b) Disturb archaeo resources? (1)	___	X	___	___
c) Affect historical resources? (1)	___	X	___	___
d) Have the potential to cause a physical change which would affect unique ethnic cultural values? (1 , 3)	___	___	___	X
e) Restrict existing religious or sacred uses within the potential impact area? (1 , 3)	___	X	___	___
11. RECREATION. Would Proposal:				
a) Increase demand for local or regional parks or other recreational facilities? (1 , 3 , 16)	X	___	___	___
b) Affect existing recreational opportunities? (3 , 8 , 16)	___	___	X	___
c) Conflict with adopted recreational plans and policies? (1 , 3 , 8 , 16)	___	___	X	___

ISSUES & SUPPORTING DATA SOURCES:	Potential Signfcnt. Impact	Signfcnt Unless Mitgtd	Less Than Signfcnt. Impact	No Impact
12 ENERGY & MINERAL RESOURCES Would Project:				
a) Conflict with adopted energy conservation plans? (15)	___	___	X	___
b) Use non-renewable resources in a wasteful and inefficient manner? (15)	___	___	X	___
13. HAZARDS Would the proposal involve:				
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemical, gas or radiation)? (N/A)	___	___	X	___
b) Possible interference with an emergency response plan or emergency evacuation plan? (3)	___	___	X	___
c) The creation of any identified health hazard? (N/A)	___	___	X	___
d) Exposure of people to existing sources of health hazards? (N/A)	___	___	X	___
e) Increased fire hazard in designated high fire hazard areas (e g flammable brush, grass, or trees)? (17)	___	X	___	___
14. PUBLIC SERVICES. Would Project result in need(s) for new/altered government services in:				
a) Fire protection? (17)	X	___	___	___
b) Police protection? (17)	X	___	___	___
c) Schools? (17)	___	X	___	___
d) Maintenance of public facilities, including roads? (17)	___	___	X	___
e) Other governmental services? (N/A)	___	___	X	___
15 UTILITIES & SERVICE SYSTEMS. Would Project result in needs for new or substantial alterations:				
a) Power or natural gas? (N/A)	___	___	X	___
b) Communications systems? (N/A)	___	___	X	___
c) Local or regional water treatment or distribution facilities? (1 , 3)	___	___	X	___
d) Sewer or septic tanks? (1 , 3)	___	___	X	___
e) Solid waste disposal? (1 , 3)	___	___	___	___

PERSONS/AGENCIES CONSULTED

CDFG; EMA/Development Services Div.; EMA/Traffic Engineering; .EMA/HBP Program Planning; EMA/Road Programs Div.; EMA/Zoning Admin.; EMA/Land Use Planning; St. Michael's Abbey; EMA/Subdivision Section.

NOTICE OF INTENT TO PREPARE (NOP)
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT EIR (566)
FOR THE SADDLEBACK MEADOWS DEVELOPMENT project
GRADING APPLICATION GA960048
TRACT MAP 10692

I. INTRODUCTION/BACKGROUND

Pursuant to Public Resources Code Section 21165, the County of Orange is the Lead Agency responsible for preparing a Subsequent Environmental Impact Report (EIR) addressing potential impacts associated with the proposed Saddleback Meadows project located approximately ½-mile from the El Toro Road/Live Oak Canyon Road intersection in the Foothill/Trabuco Specific Plan area of unincorporated Orange Count Section 15162 of the California Environmental Quality Act (CEQA) Guidelines describes a Subsequent EIR which will be the type of EIR prepared for the proposed project. According to this Section, a Subsequent EIR shall be prepared when subsequent changes are proposed in the project which will require important revisions of the previous EIR due to the involvement of new significant environmental impacts not considered in the previous EIR.

Subsequent EIR 566 will be based upon EIR 059, certified in May, 1978, FEIR 203, certified January 9, 1980, and FEIR 531, certified December 10, 1991. It will also incorporate relevant portions of DEIR 561 proposed for the earlier project. The currently proposed project was also evaluated as Alternative 2 in EIR 561

II. PROJECT DESCRIPTION

The project proposes the phased development of 705 manufactured single family housing units on a 229 2-acre site on the easterly side of El Toro Road. The gross residential density is 3 17 du/ac, with minimum lot sizes of 3,200 square feet. Ten (10%) percent of the project site is proposed to remain in open space In addition to the residential component, the project also proposes a private park site, regional riding/hiking trail connections, and associated infrastructure Project implementation requires the approval of a grading plan. The grading permit application (GA960048) is based on tract 10692, which was recorded December 16, 1988.

The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor Specific Plan approximately ½-mile southerly of the El Toro Road/Live Oak Canyon Road intersection Implementation of the proposed project would directly effect 156.0-acres of the project site, not including remedial grading and fuel modification requirement. Total development footprint area would affect 90% or 206 acres of the project site. In addition to onsite grading 2.04-acres of offsite area would be effected for access road construction and remedial grading.

A total of 3.7 million cubic yards of conventional grading and 10 million cubic yards of remedial grading would be required to implement the project.

The following table summarizes major features for the proposed project and current surrounding residential developments

SURROUNDING PROJECT COMPARISON SUMMARY

FEATURE	PROPOSED PROJECT	PORTOLA HILLS	HIDDEN HILLS/ HIDDEN RIDGE
Acreage	229	1,399	74
Dwelling Units	705	2,200	230
Minimum Lot Size	3,200 sf	3,000 sf	5,000 sf
% Open Space	10%	39%	31%
Gross Density	3 17 du/ac	2.2 du/ac	3.1 du/ac
Conventional Grading/Lot	4,500 cy	7,450 cy	5,850 cy
Wildlife Corridor	No	No	No
Regional Trail Connections	Yes	Yes	Yes

III. SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS

An Initial Study has been completed analyzing the proposed project pursuant to Section 15063 of the CEQA Guidelines. It has been determined that there is substantial evidence that significant effects may occur in the topical areas of. Land Use; Geophysical; Water; Transportation, Air Quality; Noise; Biological Resources, Aesthetics; Cultural/Scientific Resources, Recreation, Hazards and Cumulative Impacts. Areas that revealed less than or no significant effects were: Population and Housing; Energy and Minerals; Public Services, and Utilities and Service Systems For more detail consult the Initial Study analysis

IV. ALTERNATIVES TO BE EVALUATED IN THE DRAFT EIR

The EIR will include a range of Alternatives which fulfill the following California Environmental Quality Act (CEQA) criteria outlined in Section 15126(d) of the CEQA Guidelines

A. Alternatives Which Achieve the Project's Objectives: Section 15126(d) requires a range of Alternatives which could feasibly achieve the project's objectives.

B. Alternatives Which Eliminate or Reduce Project Impacts CEQA Guidelines Section 15126(d)(3) requires that the Alternatives Section of an EIR shall focus on those alternatives capable of eliminating or reducing any significant adverse impacts on the environment caused by the project

C. Rule of Reason: Section 15126(d)(5) of the CEQA Guidelines requires that the range of Alternatives in an EIR be governed by the "rule of Reason" which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice by the decision-maker

Proposed Alternatives

The Lead Agency has determined that the following Alternatives to the proposed project are reasonable alternatives to be discussed in EIR 566 in compliance with Section 15126(d) of the Guidelines·

1. No Project/ No Development Alternative - This alternative would leave the proposed site in its existing condition

2. FTSP EIR 531 Staff Alternative A - This alternative would allow 150 sf units with a minimum lot size of 20,000 square feet.

3 FTSP EIR 531 Staff Alternative B - This alternative would reduce the number of dwelling units on the project site to no more than 100 on approximately 30 acres

4 318 Unit Single Family Housing Alternative - This alternative is the proposed project evaluated by EIR 561.

V. MANDATORY FINDINGS

A. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Yes. The proposed project has the potential of significantly affecting the range of wildlife that may currently use this property as a wildlife movement corridor

B. Does the project have the potential to achieve the short-term environmental goals to the disadvantage of the long-term environmental goals?

Yes The project has the potential to affect the NCCP related wildlife corridor planning for this area

C. Does the project have possible environmental effects which are individually limited but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)

Yes. The proposed project could have significant cumulative effects on the air quality, traffic and biological resources of the area

D Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? *Yes. project implementation could have substantial adverse effects on human beings in terms of noise, air quality and geotechnical hazards. These potentially significant impacts shall be analyzed under each topical area of the EIR*

VI. INITIAL STUDY

The Initial Study analysis is included in this NOP for review.

DETERMINATION

Based on the Initial Study above, the proposed project may have a significant effect on the environment which has not been analyzed in any previous CEQA document. Therefore an Environmental Impact Report (EIR) is required

CONTACT

Raymond H.C Brantley, Chief
EMA/Environmental & Project Planning Division
Private/Capital Projects Section
(714) 834-3763

PROJECT BACKGROUND/CHRONOLOGY

The current proposed project is the culmination of planning efforts with the County of Orange over a seventeen (17) year period. The following Chronology identifies key dates in the project's evolution

SADDLEBACK MEADOWS PROJECT CHRONOLOGY

DATE	PROJECT RELATED EVENT
August 8, 1978	- The Orange County Board of Supervisors adopted GPA 78-1, Item 4, the "Saddleback Meadows Mobile Home Subdivision" which granted a change in the Land Use Element designation for the site from 5 4 Other Open Space to 1 22 Medium Low Density Residential and 2.1 Local Commercial. Maximum number set at 617 dwelling units. Triggering mechanism to revert land use designation to original after 2 years commenced. EIR 059 certified
February 6, 1979	- Board adopted Site Plan conditions as requirements for implementing the subject amendment. Draft EIR 059, which was the CEQA documentation for the site plan, identified major grading impacts as project related impacts, these impacts were also shown on grading plans for Tentative Tract Map TT10692, prepared for the project.
March 7, 1979	- Zone change application, Tentative Tract Map and Initial Study requests submitted to County for a maximum of 617 mobile home units and a neighborhood convenience commercial center on the project site
March 29, 1979	- Determination of requirement for an EIR transmitted to applicant by Environmental Services Division (ESD)
June 5, 1979	- Appeal of EIR requirement by Cliff Russell, representing Worthington/McNiff
June 11, 1979	- The Orange County Planning Commission denied the appeal Supplemental EIR required for proposed 617 unit tentative tract map
June 25, 1979	- Zone Change 79-24 submitted to County. The project proposed at this time consisted of 617 units
August 7, 1979	- Revised Tentative Tract Map was submitted to the County for Screencheck reflecting some design modifications requested by County staff as well as an increase of 145 dwelling units added to the project by the proponent.
August 17, 1979	- Revised Tentative Tract Map and Supplemental Environmental Information submitted to Environmental Services (ESD) Submittal raised many questions with ESD in that the project had been revised substantially with a 23 5% increase in total number of units and intensity of land use

Saddleback Meadows Project Chronology (Cont'd)

DATE	PROJECT RELATED EVENT
August 21, 1979	- Revised Zone Change 79-24 received by the County reflecting the revised project proposal of 762 units, with 25% in affordable range
November 28, 1979	- Revised TT10692 filed with Environmental Management Agency depicting 727 lots, including 714 residential lots, 1 commercial lot and several open space and utility lots
December 13, 1979	- TT10692 approved by the Planning Commission with recommendation that Zone Change ZC79-24 be approved by Board of Supervisors
January 9, 1980	- Saddleback Meadows properties placed in the PC "Planned Community" District and adopted by Board of Supervisors, Ordinance Number 3177 Final EIR 203 certified
October 28, 1981	- Two year extension of time to record to expire December 12, 1983 approved by the Subdivision Committee.
December 7, 1981	- Appeal to deny two year extension of time affirmed by Planning Commission One year extension of time to record to expire December 12, 1982 granted by Planning Commission.
November 17, 1982	- An additional one year extension of time to record to expire December 12, 1983 approved by Subdivision Committee
July 13, 1983	- Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance Number 3398 (ZC82-63P)
October 26, 1983	- Third one year extension of time to record approved
June 13, 1984	- Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance 3486 (ZC84-3P)
October 24, 1984	- 589-day stay of time in which to record a final tract map approved by Subdivision Committee Expiration date extended to July 24, 1986
July 24, 1986	- Water district could not provide sewer service, recordation not allowed until sewer capacity available.
December 16, 1988	- Tract Map 10692 recorded.
December 10, 1991	- Foothill/Trabuco Specific Plan approved and Final EIR 531 certified by Orange County Board of Supervisors. The Specific Plan incorporated the Saddleback Meadows Planned Community Regulations as the Bridlewood Residential District

Saddleback Meadows Project Chronology (Cont'd)

DATE	PROJECT RELATED EVENT
April, 1994	- Grading Permit Application GA940031 submitted for Phase I, Grading (98 3 acres) of the site
August, 1994	- Initial Study completed and Environmental Impact Report Determination Letter is issued.
August 11, 1994	- Letter of Appeal filed with County.
November, 1994	- Appeal Hearing postponed to January 7, 1995, then to January 31, 1995.
January 31, 1995	- Applicant withdraws appeal Planning Commission directs applicant to develop a more compatible project in response to public testimony, staff concerns, and Planning Commission's direction.
July 27, 1996	- Revised 318-unit Site Development Plan, zone change and area plan submitted to County of Orange
July 30, 1996	- Orange County Planning Commission recommended EIR 561 for certification and recommended applications for Vesting Tentative Tract Map No 15230, area plan 95-7 and zone change 95 5 be denied.
August 11, 1995	- Notice of Preparation circulated for EIR 561
October 22, 1996	- Board of Supervisors denied project and did not certify EIR 561
December 3, 1996	- Applicant submitted application for Phase I Grading Plan for 705 unit Tract 10692 (GA960048)
December 16, 1996	- EMA determined that a Subsequent EIR is required to evaluate the effects of the grading application.

CEQA CHECKLIST DISCUSSION

INITIAL STUDY PROCEDURE

This Initial Study has been conducted pursuant to Section 15060 of the State CEQA Guidelines and the County of Orange CEQA procedures. It includes a detailed review and analysis of the project in light of the following documents, plans, policies and guidelines

- CEQA Statute and Guidelines;
- Draft EIR 561/Response To Comments
- Final EIR 059, Certified on August 8, 1978;
- Final EIR 203, Certified on January 9, 1980,
- Original Grading Plans;
- Foothill-Trabuco Specific Plan;
- Final EIR 531, Certified on December 10, 1991,
- Tentative Tract Map TT10692/Recorded Final Tract Map 10692;
- TT10692 Hydrology and Hydraulic Design Reports;
- Aliso Creek Corridor Specific Plan,
- Orange County General Plan Elements: Land Use, Noise; Transportation; Resources, Recreation, and Safety;
- Biological Assessment and Oak Tree Inventory;
- Saddleback Meadows Preliminary Landscape Submittal,
- Fourth Supplemental Geotechnical Report,
- Correspondence on the Subject;
- Southern California Coastal Sage Scrub NCCP Process Guidelines, Amended November 1993;
- Initial Study No. PA940068 - July 6, 1994, and
- Supplemental Saddleback Meadows Communication Booklet - June 30, 1995.

The following discussion provides a detailed analysis of the environmental categories on the Orange County Environmental Analysis Checklist as they relate to the proposed project. It also identifies those issues that have been determined not to have potentially significant effects, and those determined to be mitigatable. It also provides the probable scope of evaluation in the Draft Subsequent EIR.

1. LAND USE & PLANNING

Existing Setting

The entire project 229 2-acre Saddleback Meadows project site is currently zoned "S"-Foothill/Trabuco Specific Plan with SR-Sign Restriction overlay district. The Bridlewood/Saddleback Meadows Residential District was established within the Foothill/Trabuco Specific Plan, adopted December, 1991, to recognize the existing zoning and tract map approvals for the Bridlewood/Saddleback Meadows property.

The current Orange County General Plan Land Use Element (LUE) designations for the project site are 1B-Suburban Residential LUE Designation (0 5 to 18 Dwellings per Acre), and 1·2 Low Density Residential Neighborhoods - Community Profile Designation (0.5 to 2 0 Dwelling Units per Acre)

Surrounding Land Uses

Southerly: Hidden Ridge Residential Development (230 Residential Dwelling Units), Ramakrishna Monastery and O'Neill Park.

Westerly. Portola Hills Planned Community Residential Development (2,200 Residential Dwelling Units)

Northerly: Saint Michael's Abbey and Prep School

Easterly Ramakrishna Monastery; Rural single-family development.

Potential Impacts

Potential impacts which may result if the project is developed include the introduction of 705 manufactured housing units and related major infrastructure improvements into an area previously used primarily for open space and agricultural uses; potential conflicts with existing surrounding land uses, and the conversion of agricultural land to development.

The circumstances regarding surrounding land uses has changed since the previous EIRs were certified and the original project was approved. When EIRs 059 and 203 were certified, the vicinity of the project, with the exceptions of St. Michael's Abbey and the Ramakrishna Monastery, was characterized by a undeveloped, predominantly natural environment. The project site, although disturbed through farming and cattle grazing purposes, was dominated by coastal sage scrub, oak woodlands and grasslands. The closest urban development was approximately four miles south of the site near the El Toro/Trabuco Road intersection.

The project vicinity has become more urban since the original approvals It is now characterized by major residential development, including the Portola Hills Planned Community, the Hidden Ridge project and Foothill Ranch With the changes that have taken place since the original project was approved, there is a question of the project's compatibility with surrounding uses

Mitigating Potential Impacts

The changes in circumstances in Land Use and Planning cannot be easily mitigated, if at all A new Subsequent EIR will provide the best mechanism to properly assess the following

- The project's potential conflicts with the Foothill-Trabuco Specific Plan, the Aliso Creek Corridor Specific Plan and the Natural Communities Conservation Planning Program (NCCP) Program,
- The project's potential conflicts with surrounding land uses;
- Reassess those major Conditions of Approval listed above which were not satisfied prior to the recordation of Tract 10692, including their appropriateness, relevance and compatibility at this time in light of changed circumstances;
- Identify the potential environmental impacts of the proposed project on the existing agricultural uses;

- Identify mitigation measures necessary to reduce all identified earth resource impacts to a level of insignificance, and
- Identify unavoidable and cumulative earth resource impacts

Scope of EIR Discussion

The changes in circumstances in Land Use and Planning requires the Subsequent EIR to address the following

- The project's potential conflicts with the Foothill-Trabuco Specific Plan, the Aliso Creek Corridor Specific Plan and the Natural Communities Conservation Planning Program (NCCP) Program,
- The project's relationship with surrounding land uses,
- Identification of the potential environmental impacts of the proposed project on the existing agricultural uses,
- Identification of mitigation measures necessary to reduce all identified earth resource impacts to a level of insignificance, and
- Identification of unavoidable and cumulative earth resource impacts

2. POPULATION & HOUSING

The proposed project is not expected to cumulatively exceed adopted regional or local population projections It will not induce substantial growth in an area directly or indirectly through project in an undeveloped area or extension of major infrastructure. The project would not displace existing housing The project will increase affordable housing

No Mitigation is needed and no discussion of Population and Housing is required in the EIR.

3. GEOPHYSICAL

Existing Setting

The project site is primarily in its natural state with a disturbed area of approximately 75 acres used for cattle grazing Although the majority of the site's surface soils and topographical features have not been physically disturbed, geotechnical reports prepared for the project have identified several major landslides which affect the site's stability

Potential Impacts

Potential impacts which may result if the project is developed include substantial short term changes of the site's landforms and topographical features particularly during remedial grading activities. In the long term, the project proposes site reconfiguration to reflect the site's natural land form features, and related impacts on the soil stability of the site. During construction, erosion and siltation of soils may also occur

Grading activities on the project site result in sediment being carried into the Aliso Creek Corridor and downstream ultimately to Aliso Beach. Because of the site's seismic features, people and property could be potentially exposed to earthquake and ground failure hazards

The Planning Application indicates that remedial grading for the project will include grading a portion of the project site due to extensive landslides The Saddleback Meadows Geotechnical Reports indicate that extensive remedial grading with large buttresses will be required to stabilize the project site due to these documented landslides The Engineering Geology of Part of the Western Half of the Santiago Peak Quadrangle, Orange County, California, prepared by the California Department of Conservation Division of Mines and Geology, has mapped and recorded these landslides

Scope of EIR Discussion

The Subsequent EIR will provide a detailed discussion and clarification of the following

- Proposed grading in areas previously designated for preserved open space areas,
- Identification of soil and geologic characteristics and limitations of the project site, including soil stability, earthquake potential and known geologic hazards, including landslides, mudslides, ground failures and similar hazards for the entire site,
- Identification of the seismic features of the site, including the potential exposure of people or property to environmental impacts of the proposed project associated with earthquakes, liquefaction or similar hazards;
- The potential environmental impacts of the proposed project on the existing site topography and unique geologic or physical features;
- Mitigation measures necessary to reduce earth resource impacts to a level of insignificance, and
- Identification of unavoidable and cumulative impacts associated with earth and landform

4. WATER

Existing Setting

The onsite project drainage has not been modified and remains in a natural state. However, some improvements have been made to sections of Aliso Creek, adjacent to the site, including a major man-made drainage channel This channel passes from the proposed site to the westerly side of El Toro Road.

The area of Aliso Creek Corridor is classified as Floodplain FP-2 by the Federal Emergency Management Agency (FEMA) The project site is located within the watershed of Aliso Creek Four (4) ponds and four (4) intermittent ponds are also present onsite

Potential Impacts

Potential impacts which may result if the project is implemented include changes in absorption rates, alteration of the project site's existing landform, subsequently altering the existing flow of water onto, through, around and off the project site

During construction the disruption of soils may also affect the content of site run-off into the watershed area of Aliso Creek. Groundwater levels and quality, including absorption rates, may be affected by the proposed project.

National Pollution Discharge Elimination System (NPDES) is a regulatory program required by the Clean Water Act and administered by the OCEMA. Potential impacts include pollutant discharges into Aliso Creek.
Scope of EIR Discussion

The Subsequent EIR will provide a detailed analysis of the proposed project's relationship to water resources, including the following

- Identification and quantification of the current surface water and groundwater drainage patterns and water flows within, and adjacent to, the project site,
- Identification and quantification of the portion of the project site or off-site area that will be impacted by proposed project currently located within FEMA's FP-2 floodplain designation area,
- Identification and quantification of the current surface water and groundwater quality within, and adjacent to, the project site, including existing on-site discharges into drainage channels;
- Identification of significant changes in the course or direction of water movements;
- Identification of changes in absorption rates, drainage patterns, or the rate and amount of surface water run-off,
- Identification of changes in erosion or changes in siltation which may modify the channel of Aliso Creek;
- Identification of changes in the amount of surface water as a result of any proposed storm drain retarding basins,
- Identification of changes in the quantity or quality of groundwaters,
- Identification of the potential environmental impacts of the proposed project on wind or water erosion of soils, on or off-site,
- Identification of alterations to the course, flow or magnitude of flood waters, and resultant exposure of people or property to flood hazards;
- Identification of mitigation measures necessary to reduce project impacts to a level of insignificance, including the development of Best Management Practices (BMP) for compliance with the Clean Water Act; and
- Identification of unavoidable and cumulative water resource impacts

5. TRANSPORTATION/CIRCULATION

Existing Setting

The Saddleback Meadows project site is accessed off of El Toro Road. The site's interior is natural and has no road access

Potential Impacts

Potential impacts which may result if the project is developed include The master planned (MPAH) arterial highways and roadways transit systems has identified El Toro Road which is adjacent to the project site and conditioned to be improved to primary status is now scheduled to be upgraded to a major artery, additional grading will be required at implementation, generation of a significant amount of project related traffic; creation of demand for new parking; alteration of existing traffic patterns; and potential impacts vehicles, bicyclists and/or pedestrians

The traffic and circulation information on the proposed project and its relationship to El Toro Road, including its present and ultimate design configuration and improvement require updating. At the time EIRs 059 and 203 were certified and the project was approved, projects in the vicinity generated less than 3000 Average Daily Trips ADT on El Toro Road, which was designated on the County's Master Plan of Arterial Highways (MPAH) as a primary arterial highway El Toro Road was reconstructed in the early 1980's to a two-lane highway adjacent to the project site.

Today, projects in the vicinity generate approximately 16,000 ADT along El Toro Road. Since 1985, El Toro has been reclassed on the MPAH from a primary arterial highway to a major arterial. Impacts from the proposed project's additional grading which is necessary for the required upgraded improvements to EL Toro Road from a Primary to a Major Arterial were not addressed in EIRs 059 and 203

Scope of EIR Discussion

The Subsequent EIR will include a detailed traffic/circulation analysis and a traffic/engineering study The traffic/circulation study must update projections of the number of trips generated by the project and other projects on the arterial highway system, including El Toro Road, Santiago Canyon Road, Glenn Ranch Road and Portola Parkway The traffic/engineering study must provide preliminary designs for the ultimate improvement of El Toro Road to major arterial specifications. The following will be included in the Transportation/Circulation section of the EIR

- Identification of existing and planned public transit systems affected by the proposed project,
- Identification of existing vehicular movement and patterns of circulation within and adjacent to the project site, and the existing vehicular movement in the surrounding vicinity as a result of current land uses through a traffic study;
- Identification and analysis of the existing ingress and egress to the project site, its potential internal circulation and parking problems associated with the proposed development,
- Identification of existing impacts to equestrians, motor vehicles, bicyclists and/or pedestrians,

- Evaluation of the interim and long-term traffic generation of the proposed project and its potential to generate additional vehicular movement beyond current projections of regional traffic,
- Evaluation of the need for El Toro Road to be a primary arterial versus a major arterial.
- Identification of increases in demand for public transit services with special attention to relationship with low income housing for senior citizens and any potential conflicts with planned roadway widenings or extensions,
- Identification of specific potential adverse impacts on the vehicular movement and the movement of people and goods as a result of the proposed project, both within the project site and within adjacent communities,
- Identification of specific potential internal circulation problems and potential traffic hazards to motor vehicles, bicyclists and/or pedestrians which may result from the proposed project,
- Identification of the aspects of the proposed project which will create demand for new parking facilities;
- Identification of mitigation measures necessary to reduce project traffic and circulation impacts to a level of insignificance; and
- Identification of unavoidable and cumulative impacts to transportation and circulation resources

6. AIR

Existing Setting

The project site is located within the South Coast Air Basin, SCAB, which suffers from some of the most severe cases of air pollution in the nation. The SCAB is currently in violation of several federal air quality standards

Potential Impacts

Potential impacts which may result if the project is developed include generation of both short-term and long-term air quality impacts, both individually and cumulatively, including increased air emissions; impacts on sensitive receptors in the project vicinity including St. Michael's Abbey and the Hillside Montessori School; and the exposure of persons to locally elevated levels of air pollution.

Scope of EIR Discussion

Although the South Coast Air Basin is already in violation of air quality standards, the impacts of the project on local air quality must be thoroughly assessed. The Subsequent EIR for the proposed project will

- Identification of the existing air quality environment of the project site in the local and regional context, including, but not limited to air pollution, objectionable odors, and air movement, moisture and temperature,
- Identification of air quality impacts associated with construction of the proposed project;
- Assessment of the proposed project's consistency with the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP), Regional Mobility Plan (RMP) and Growth

Management Plan (GMP);

- Identification and quantification of long-term air quality impacts resulting from development of the proposed project, including, but not limited to· air pollution; objectionable odors; and increased air movement, moisture or temperature;

- Identification and analysis of the potential sensitive receptors which may be exposed to substantial pollutant concentrations,

- Identification of mitigation measures necessary to reduce short-term and long-term air quality impacts to a level of insignificance; and

- Identification of unavoidable and cumulative air quality impacts

7. NOISE

Existing Setting

The project site is primarily in its natural state with noise generated by existing land uses and vehicular trips is minor Portions of the project site are impacted by noise resulting from aircraft operations from MCAS-El Toro and is located within the 60 CNEL noise contour of MCAS-El Toro The project is adjacent to El Toro Road, a major access road to O'Neill Regional Park.

Potential Impacts

Potential impacts which may result if the project is approved include: the generation of short term impacts related to construction; and the potential exposure of future residents to airborne noise sources, including interim impacts from aircraft operations at MCAS-El Toro prior to closure of this military base

Scope of EIR Discussion

The Subsequent EIR for the proposed project will include a detailed noise assessment including the following

- Analysis of the exposure of the project site to existing and projected noise from vehicular traffic and aircraft overflights, in terms of individual and combined contribution of sources;

- Identification of the potential exposure of future residents of the project site to projected noise from vehicular traffic and aircraft overflights, both on an interim and long-term basis,

- Identification of any noise impacts on existing residents in the vicinity of the project as the result of project implementation,

- Identification of mitigation measures necessary to reduce noise impacts to a level of insignificance, and

- Identification of unavoidable and cumulative noise impacts.

8. BIOLOGICAL RESOURCES

Existing Setting

The proposed project site exists in its natural state Draft EIR 561 provided an evaluation of the site and together with previous surveys from December, 1989 and September 1990 revealed that the site had been partially disturbed by cattle grazing. Coastal sage scrub habitat has been identified by the Orange County Wildlife Geographic Information System project Coastal Sage Scrub Distribution Map dated February 1994 as existing in this region Approximately 68.7 acres of Coastal Sage Scrub are located on site. The project site is also an existing wildlife corridor link between O'Neill Regional Park and Whiting Ranch/Limestone Regional Park. In addition, the project site is located within the watershed area of Aliso Creek Corridor The Aliso Creek Corridor which is located adjacent to the project site is identified as a "blue line" stream by the United States Geologic Survey (USGS) Canada Quad topographical map The U S Fish and Wildlife Service (USFWS) has documented the occurrence of the Federally Listed as Endangered Riverside Fairy Shrimp on the project site

Potential Impacts

The proposed project has several potentially significant environmental impacts to biological resources Specifically·

- Natural Communities Conservation Planning (NCCP) Program The proposed project may potentially impact the State of California Natural Communities Conservation Planning (NCCP) Program. This is a habitat-based conservation process adopted by local, state and federal regulatory agencies charged with making or recommending land use decisions in California, by Assembly Bill AB2172 (Chapter 765, Statutes of 1991)

  Impacts from grading the site would result in the removal of coastal sage scrub One of the findings the County must make to abide by the provisions of the U.S. Department of Interior's 4(d) Rule is that the loss of the coastal sage scrub will not jeopardize the subregional NCCP Program plan. The site may be identified as one of the links between the Southern subregion and the Central subregion. If this connective link is lost, the 4(d) Rule finding might be precluded A wildlife corridor has been proposed o-site to complete this link.

- Riverside Fairy Shrimp The proposed project may impact the Streptocephalus woottoni (scientific name), also known as the Riverside Fairy Shrimp, which is a Federally Listed Endangered Species.

  Section 9 of the Endangered Species Act prohibits the "take" of a federally listed species Documentation is on file in the office of the U.S. Fish and Wildlife Service, Carlsbad Office, attesting to the known occurrence of this federally listed species on the project site. According to U S Fish and Wildlife Service, since the shrimp has been confirmed in one pond, it is highly probable that the species will be found in all eight ponds on the site.

- Sensitive Reptiles and Amphibians Draft EIR 561 noted that several sensitive or threatened species of reptiles and amphibians can be expected to occur on the subject property These include the following the Arboreal Salamander, the Ensatina, the Western Spadefoot, the Orange-Throated Whiptail, the San Diego Horned Lizard, the Coastal Whiptail, the Coastal Rosy Boa, the Coast Patch-nosed Snake, and the Red Diamond Rattlesnake

- Wildlife Corridor The significance of the project site's location as a wildlife corridor has changed Certified EIRs 059 and 203, and Draft EIR 561 identified the site as a wildlife corridor, along with two off-site corridors

connecting two major wildlife areas, the O'Neill Regional Park/Cleveland National Forest open space area and the Whiting Ranch/Limestone Regional Park open space area, easterly and westerly of the subject site, respectively. Consequently, the elimination of the site as a wildlife corridor was not treated as a significant impact. The rationale provided for this conclusion was the presence of other wildlife corridors in the project vicinity.

With the construction of residential communities in the project vicinity, the previously identified off-site wildlife corridors have been eliminated. The subject site now provides the only linkage between the two wildlife corridor areas. This document identified several large mammals which live on or frequent the site, including mule deer, mountain lion, gray fox and bobcat, thereby indicating the importance of the site as a wildlife movement corridor.

- Aliso Creek Corridor: Previous approvals for the project site designate the Aliso Creek corridor as natural open space to be preserved. The Aliso Creek corridor contains riparian vegetation and wildlife; Aliso Creek is also designated a blue-line stream, as identified by the U.S. Geological Survey.

  The Site Plan and grading plans for the project indicate that the Aliso Creek corridor preservation area may be disturbed. The revised project proposes grading in the vicinity of the stream bed, which is in the FP-2 "Floodplain 2" District and off-site grading in the Aliso Creek area adjacent to the site to create access road fill placement and conduct remedial grading. The project proposes restoration of the Aliso Creek riparian habitat area upon completion of grading.

Scope of EIR Discussion

The biological resource section of the Subsequent EIR will provide a detailed discussion of the following:

- A re-inventory of the existing unique, sensitive, aesthetically significant, rare, threatened, or endangered flora and fauna within the project site, including an Environmental Assessment and mitigation measures to avoid or reduce impacts,

- Identification of potential impacts to the Natural Communities Conservation Planning ("NCCP") Program, a habitat-based conservation process adopted by local, state and federal regulatory agencies charged with making or recommending land use decisions in California, by Assembly Bill AB2172 (Chapter 765, Statutes of 1991). The NCCP Program states that to approve an interim take application, the local agency must make certain findings, based on the information obtained pursuant to U. S. Fish and Wildlife Service (USFWS) pursuant to the Natural Community Conservation Plan (NCCP) Program and the 4(d) Rule,

- A detailed analysis of the project's impacts to wildlife movement, including mitigation measures to avoid or reduce those impacts. The location width, relationship to adjacent wildlife movement corridors must be evaluated,

- Address the proposed grading, including remedial and site preparation grading, in the revised project, which will impact Coastal Sage Scrub, including mitigation measures which avoid or reduce those impacts,

- The project's compliance with the County's general policy as a regulator of the NCCP Program, which is to avoid irreversible commitments that would preclude planning options in designing the coastal sage scrub habitat reserve,

- A detailed discussion of the proposed project's impacts to the Riverside Fairy Shrimp, including a Habitat Conservation Plan, an Environmental Assessment and mitigation measures to avoid or reduce impacts,
- Assessment of the project's impacts on unique, sensitive, aesthetically significant, rare, threatened, or endangered flora and fauna within the project site, including Oak Tree groves and Coastal Sage Scrub;
- Identification of impacts which might result from the removal of existing and intermittent ponds and the associated habitat for sensitive species, including the Riverside Fairy Shrimp, from the project site and off-site areas contiguous to project site,
- Identification of mitigation measures necessary to reduce all identified biological resource impacts to a level of insignificance, and
- Identification of unavoidable and cumulative biological resource impacts.

9. AESTHETICS

Existing Setting

The Saddleback Meadows project site is primarily in a natural state with the site's surface aesthetic features being left undisturbed. Existing light and glare from the project site is minimal, emanating only from the reflection of the eight (8) ponds on the site

Potential Impacts

Potential aesthetic impacts which may result if the project is developed include the construction of slopes and retaining walls, and a significant alteration in the appearance of the site from off-site vantage points, including El Toro Road which is designated a Scenic Highway on the County's Master Plan of Arterial Highways Aesthetic impacts are especially pronounced from the existing residential developments southerly and westerly of the project site

Potential light and glare impacts which may result if the project is approved include increased levels of exterior lighting and illumination, having the potential for adverse impacts upon residential neighborhoods and sensitive biotic communities.

Scope of EIR Discussion

The Subsequent EIR to be prepared for the proposed project will

- Identification of existing scenic vistas and views open to the public across the project site Assess the obstruction of any scenic vista or view open to the public or the creation of any aesthetically offensive site open to public view;
- A line of sight analysis of the project from El Toro Road, Hidden Ridge, Portola Hills, St. Michaels Abbey, and O'Neill Regional Park;
- Assessment of the current aesthetic importance of the project site and the aesthetic impact of the proposed project to other developments in the project vicinity,

- Evaluation and comparison of the potential aesthetic impacts associated with implementing the existing zoning and those associated with the proposed project. The narrative of this topical discussion must be supplemented by detailed simulation models of both the General Plan and the project.

- Identification of mitigation measures necessary to reduce aesthetic impacts to a level of insignificance, and

- Identification of unavoidable and cumulative aesthetic impacts

10. CULTURAL/SCIENTIFIC RESOURCES

Existing Setting

The Saddleback Meadows project site is primarily in a natural state with only minimal disturbance through cattle grazing and farming activities. Therefore, the site's potential cultural/scientific resources and features have not be disturbed.

Potential Impacts

The grading of the property has the potential of resulting in alteration of or damage to significant archaeological, historical and/or paleontological resources.

Scope of EIR Discussion

The Subsequent EIR for the proposed project will include the following.

- Inventory existing significant archaeological and/or historical sites, structures, objects, or buildings located on the project site,

- Inventory potential paleontological sites;

- Evaluation of potential significant impacts to archaeological or historical sites, structures, objects, or buildings,

- Identification of mitigation measures necessary to reduce identified cultural/scientific resources to a level of insignificance, and

- Identification of unavoidable and cumulative cultural/scientific resource impacts

11. RECREATION

Existing Setting

There are no existing recreation or public open space uses located on the project site However, the proposed project site is located between O'Neill and Whiting Ranch/Limestone Regional Parks A proposed trail is designated within the project site by the Orange County General Plan Recreation Element Master Plan of Regional Riding and Hiking trails.

Potential Impacts

The project represents a potential conflict with adopted recreational plans and policies, including the Aliso Creek Corridor Specific Plan, the General Plan Recreation Element and the Foothill/Trabuco Specific Plan

Scope of EIR Discussion

The Subsequent EIR for the proposed project will address the following

- Identification of all currently planned recreational opportunities within the project site and the surrounding vicinity;
- Assessment of the impact of the proposed project on the quality and quantity of existing recreation opportunities;
- Evaluation and comparisons of the potential recreation impacts associated with implementing the existing zoning designations and those associated with the proposed project;
- Identification of mitigation measures necessary to reduce recreation impacts to a level of insignificance, and
- Identification of unavoidable and cumulative recreation impacts

12. ENERGY & MINERAL RESOURCES

Existing Setting

The Saddleback Meadows project site is primarily in a natural state None of the site's potential mineral resources have been disturbed Previous EIRs 561, 059 and 203 did not identify energy and/or mineral resources on the site The Orange County General Plan does not designate the site as having a high potential for mineral resources No Mitigation is required and no discussion is necessary in the Subsequent EIR.

13. HAZARDS

Existing Setting

The Saddleback Meadows project site is located close to the Cleveland National Forest which is a potential fire hazard area. The project site is also located near the flight path of El Toro Marine Corps Air Station which has been approved for re-use

Potential Impacts

Potential impacts which may result if the project is developed include the possible exposure of future residents to a high fire hazard area (north of Portola Parkway). Until MCAS El Toro is closed, residents may be subjected to potential, though remote, crash hazards

Scope of EIR Discussion

The Subsequent EIR will provide a detailed discussion of hazards, including the following.

- Identification of the current fire hazards, both on-site and within the project site vicinity,
- Identification of any existing emergency response plans for the project site and evaluate the potential of the proposed project to impact emergency response plans or evacuation plans;
- Identification of potential safety impacts of MCAS-El Toro operations on the proposed project;
- Identification of the impact to future users of the site with respect to possible exposure to other hazards;
- Identification of mitigation measures necessary to avoid or reduce hazards to a level of insignificance, and
- Identification of unavoidable and cumulative hazard impacts

14. PUBLIC SERVICES

Existing Setting

The Saddleback Meadows project site is undeveloped open space with limited use for cattle grazing. The project site is served by the following major public services:

Fire Protection	Orange County Fire Department
Police Protection	Orange County Sheriff-Coroner's Department
Schools	Saddleback Valley School District

The closest fire station is Station #42 located on Ridgeline Drive with a response time of approximately 3 minutes to the project site. The sheriff's service ratio of sworn officer to population is approximately 1/2050 All the schools in the project vicinity are at capacity

Potential Impacts

Potential impacts which may result if the project is developed include the need for additional fire personnel and additional police personnel The project is expected to generate elementary, junior high and high school students to be absorbed into the Saddleback Valley School District.

Scope of EIR Discussion

The Subsequent EIR will provide a detailed assessment of the impacts to Public Services, including.

- Assessment of the adequacy of the supply of public services to be delivered to the future residents of the proposed project site,
- Evaluation and comparison of the potential public services impacts associated with implementing the proposed project;
- Identification of mitigation measures necessary to avoid or reduce public services impacts to a level of insignificance, and
- Identification of unavoidable and cumulative public services impacts.

15. UTILITIES & SERVICE SYSTEMS

Existing Setting

The Saddleback Meadows project site is undeveloped open space with limited use for cattle grazing. The project site is served by the following major public utilities and service systems

Electrical Power	Southern California Edison
Natural Gas	Southern California Gas Company
Water and Sewer	Trabuco Canyon Water District

Potential Impacts

No potential significant impacts to Utilities and Service Systems are expected to result if the project is developed

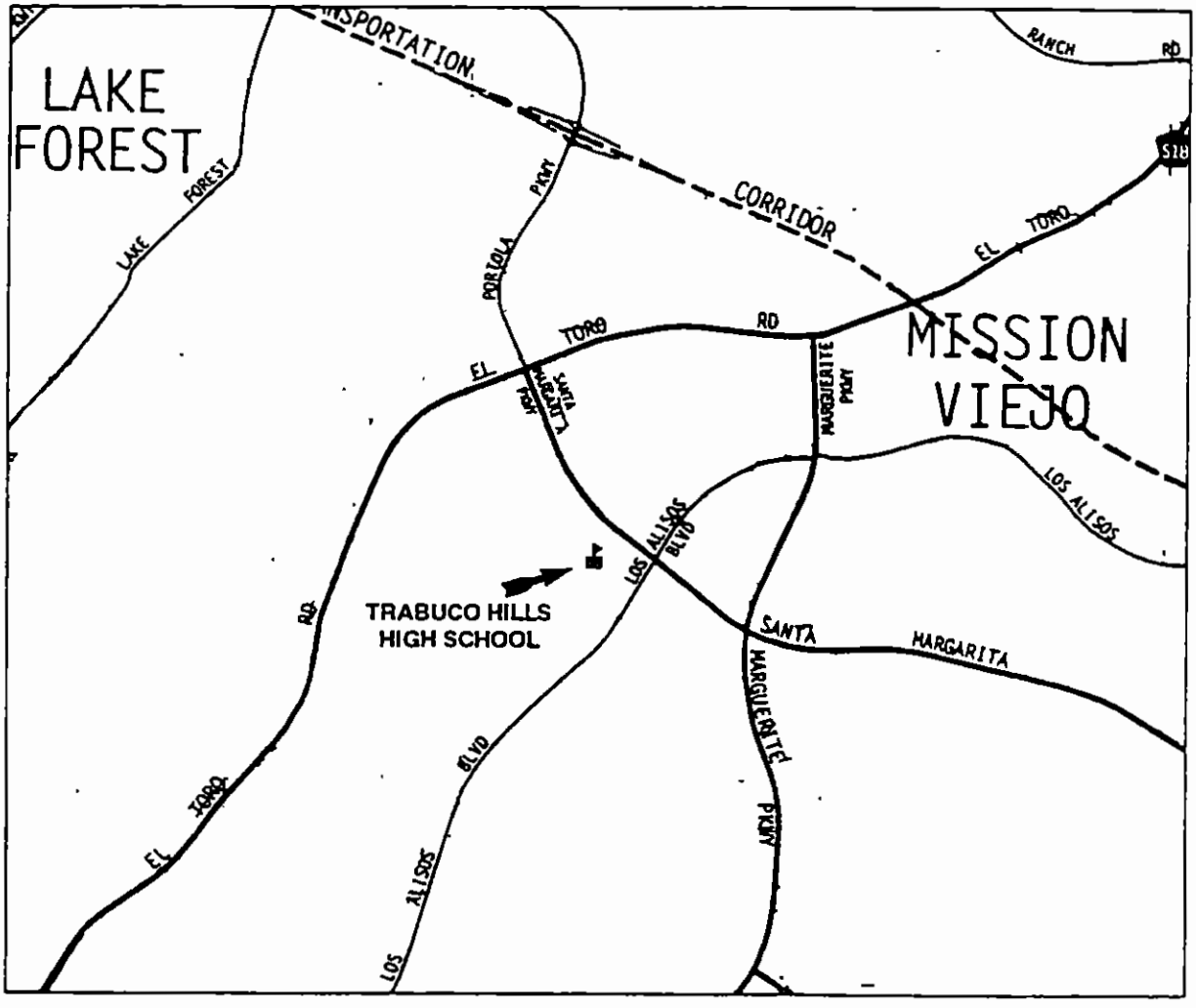
Scope of EIR Discussion

The Subsequent EIR will provide a detailed assessment of the impacts to Public Utilities and Service System, including

- Assessment of the adequacy of the supply of public utilities and service systems to be delivered to the future residents of the proposed project site,
- Evaluation and comparison of the potential public utility and service system impacts associated with implementing the proposed project,
- Identification of mitigation measures necessary to avoid or reduce all identified public utility and service system impacts to a level of insignificance; and
- Identification of unavoidable and cumulative public services impacts.

EXHIBITS

- Regional Location Map
- Vicinity Map
- Aerial Photograph
- Proposed Site Plan



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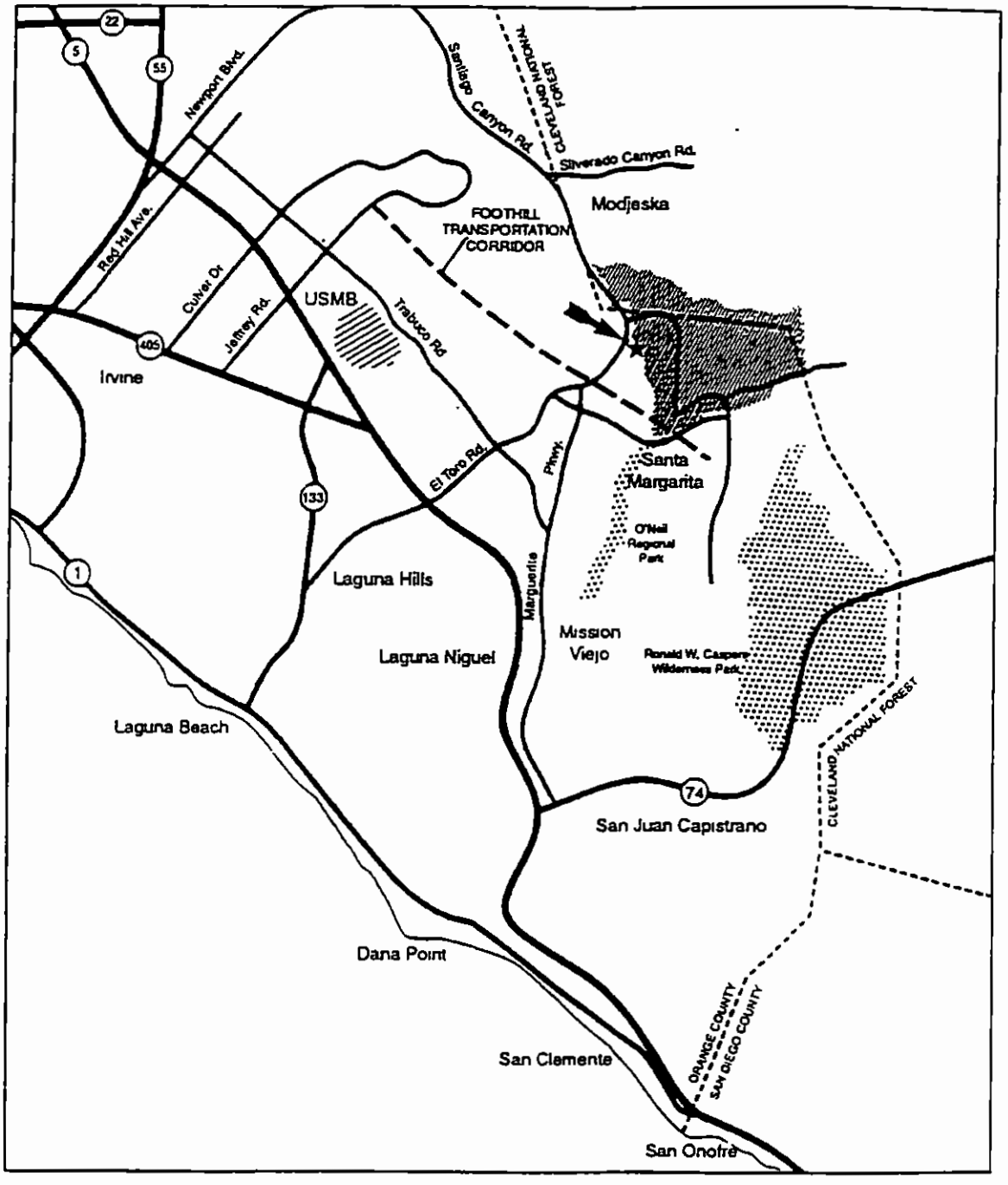
TRABUCO HILLS HIGH SCHOOL
LOCATION MAP

SADDLEBACK MEADOWS INITIAL STUDY

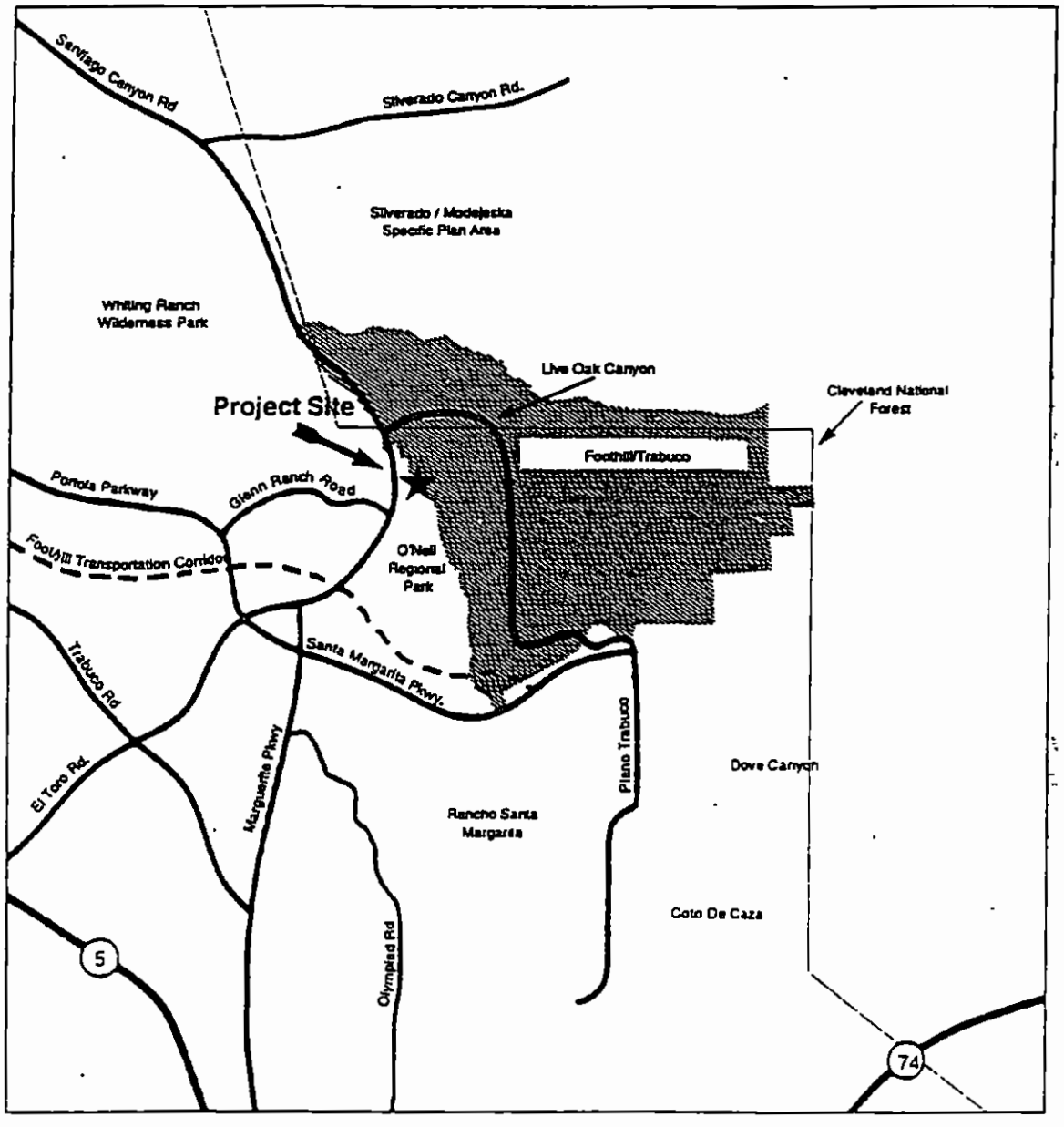
OCEMA



SADDLEBACK MEADOWS INITIAL STUDY

REGIONAL MAP

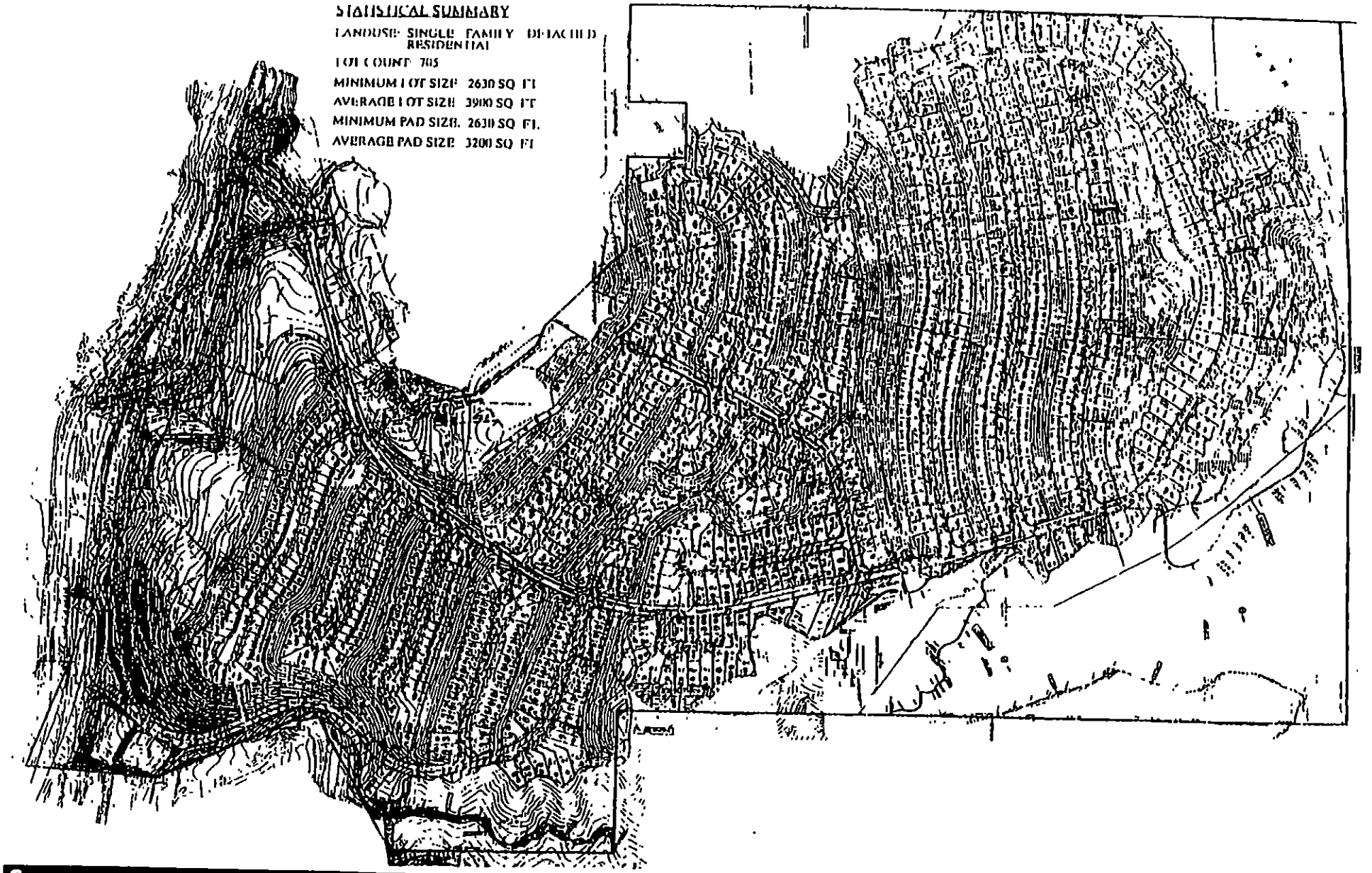
OCEMA



SADDLEBACK MEADOWS INITIAL STUDY

VICINITY MAP

OCEMA



SADDLEBACK MEADOWS - VTTM 15230
DRAFT ENVIRONMENTAL IMPACT REPORT

OCEMA

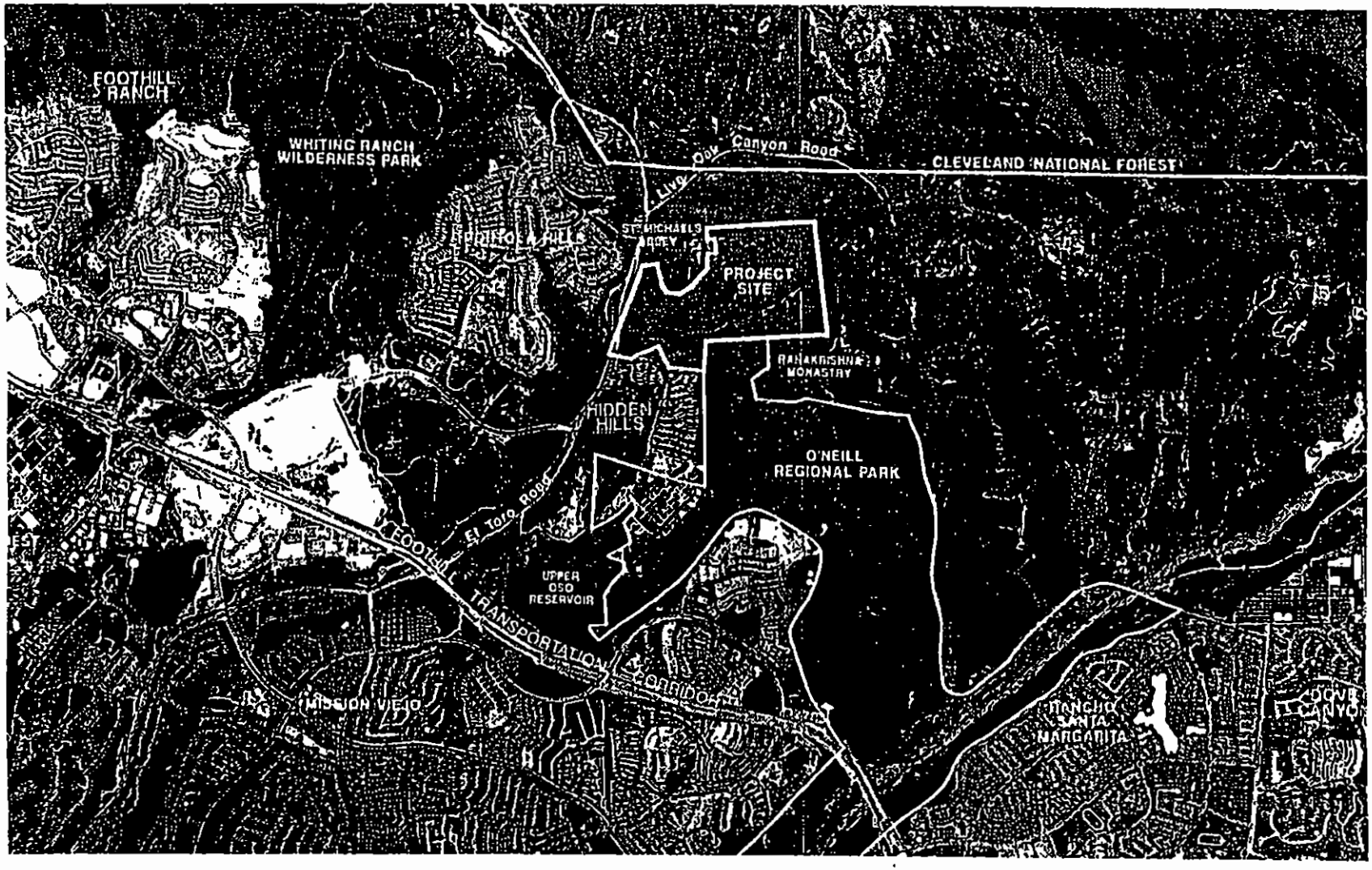
URBAN VISION

SCALE: 1" = 400'

SOURCE: Forma

N

Site Plan EXHIBIT



SADDLEBACK MEADOWS INITIAL STUDY

OCEMA

VICINITY AERIAL

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
2501 PULLMAN STREET
SANTA ANA, CA 92705

RECEIVED
JAN 27 1997

January 21, 1997

Raymond Brantley
Environmental Management Agency
P.O. Box 4048
Santa Ana, CA. 92702-4048

File: IGR/CEQA
SCH # none

Subject: Saddleback Meadows Residential Development

Dear Mr. Brantley:

Thank you for the opportunity to review and comment on the Notice of Preparation for the Saddleback Meadows Residential Development. The proposed project is for phased development of 705 manufactured, single-family residential units on a 229.2 acre site. Caltrans District 12 is a reviewing agency and has no comment at this time.

Please continue to keep us informed of future developments which could potentially impact our State Transportation Facilities. If you have any questions or need to contact us, please call Aileen Kennedy on (714) 724-2239.

Sincerely,

Robert F. Joseph, Chief
Advance Planning Branch

cc: Tom Loftus, OPR
Ron Helgeson, HDQTRS Planning
Tom Persons, HDQTRS Traffic Operations
Dan Butler, Toll Roads

EXISTING TITLE	NEW TITLE
Environmental Management Agency	Planning & Development Services Department Public Facilities & Resources Department
Environmental & Project Planning Division	Environmental & Project Planning Services Division
Current Planning Division	Current Planning Services Division
Building Inspection Division	Building Inspection Services Division
Subdivision & Grading Division	Subdivision & Grading Services Division
Building Permits Division	Building Permit Services Division

CARLENE,

THESE ARE THE only changes WERE SURE of at this point.

Bill.

County of Orange

MEMO

DATE: January 9, 1997

TO: George Britton, Manager, P&DS/E&FPD

FROM: Joan S. Golding, Manager, P&DS/AFD

Planning & Dvlpt Svcs

SUBJECT: Saddleback Meadows NOP/DEIR 566

Advance Planning staff have reviewed the Notice of Preparation (NOP) for the Saddleback Meadows Residential Development project and have the following comments and proposed mitigation measures:

COMMENTS:

AFFORDABLE HOUSING:

Saddleback Meadows retains a requirement that 66 2/3 percent of all residential units built be affordable under the Orange County Housing Element affordable guidelines. The EIR should include a discussion of Housing Element affordable requirements and how they will be implemented as part of this project.

PROPOSED MITIGATION MEASURES:

BIOLOGICAL AND WATERSHED RESOURCES:

Fund the removal of arundo donax in the Aliso Creek Corridor in partial compensation for the proposed project's biological impacts to the Aliso Creek Corridor. The arundo removal shall be adjacent to and in the vicinity of the proposed project at an acreage ratio of 3 to 1 (for arundo removal to the creek area impacted).

EXISTING FEE PROGRAMS:

- Library: Tract and parcel maps within the proposed project shall be subject to the following condition.

  Prior to the recordation of any final tract/parcel map (except for financing purposes), the project proponent shall enter into a secured agreement with the County of Orange to pay development fees for the South County Canyons Library as provided in Sections 7-9-700 through 7-9-713 of the Codified Ordinances of the County of Orange and Board Resolution No. 87-1684. This agreement shall contain:

  a) provision for payment or financial security for participation by the project proponent in the construction, equipment and collection of the library facility, subject to adjustment for inflation;

b. provision for payment of these funds is to be generally phased with development and in accordance with an established payment schedule.

- Fire: Tract and parcel maps within the proposed project shall be subject to requirements for subsequent agreements and fees as determined by the Orange County Fire Authority.

- Sheriff: Tract and parcel maps within the proposed project shall be subject to requirements for subsequent agreements and fees as determined by the Orange County Sheriff-Coroner.

Thank you for the opportunity to comment on this project. Should you have any questions or desire further information, please feel free to contact me (834-6007) or Ruby Maldonado, of my staff, directly. Ruby can be reached at 834-2520.

Sincerely,

per Joan S. Golding

RM 7010910202360
EP53300

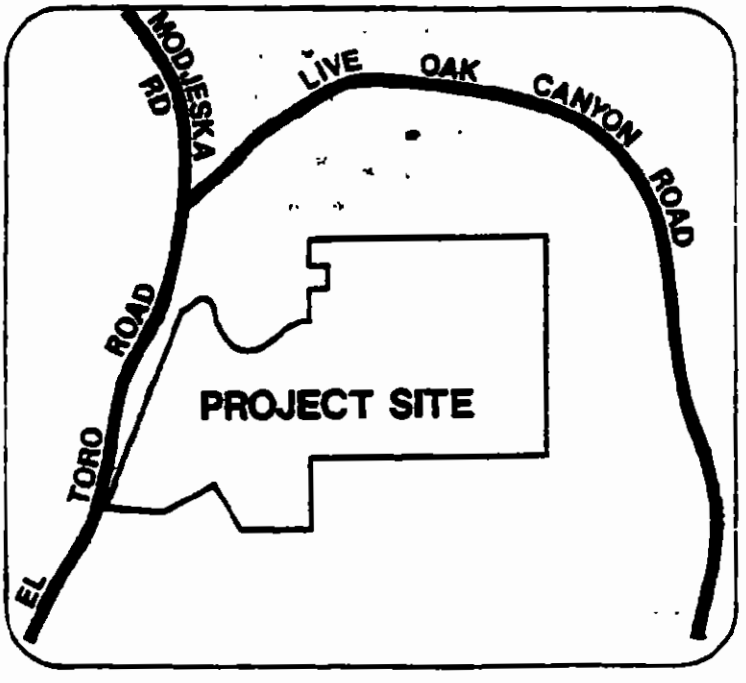
21

County Of Orange
Supplemental
Environmental Impact Report

Addressing

Zone Change 79-24
Tentative Tract 10692

Saddleback Meadows



Prepared By

David J. Tanner & Associates

RECEIVED
NOV 5 1979

EIR #203

~~SCREENCHECK SUBMITTAL~~
DRAFT ACCEPTANCE
PROPOSED FINAL EIR
FINAL EIR

Supplement to EIR #059)
(Submitted 8-17-1979)
(Submitted 11-5-1979)
(Submitted)
(Submitted)
(Certified Complete on)
1/9/80

SUPPLEMENTAL
ENVIRONMENTAL IMPACT REPORT
ADDRESSING
ZONE CHANGE #79-24
TENTATIVE TRACT #10962

PREPARED BY: DAVID J. TANNER & ASSOCIATES
420 Prospect Street
Newport Beach, California

Contact Person: DAVID J. TANNER

PREPARED FOR: SADDLEBACK MEADOWS
2239 E. Imperial Highway
Suite 120
Fullerton, California

Contact Person: GRAFTON WORTHINGTON

ENVIRONMENTAL INFORMATION FOR USE BY THE COUNTY OF ORNAGE, CALIFORNIA

LEAD DIVSION: EMA - ENVIRONMENTAL SERVICE DIVISION

I. INTRODUCTION

The project proposes development of a 714 unit mobile home subdivision and a 1.7 acre accessory neighborhood commercial center. The project site has a gross area of 232.5 acres, located within unincorporated territory, County of Orange.

This report is being written to address the potential impacts associated with the submittal of Tentative Tract Map #10962, which is being processed concurrently with this EIR by the County of Orange.

This environmental document supplements Final Environmental Impact Report #059, which addressed the subject property's General Plan Amendment to the Land Use Element. This amendment (GPA 78-1) removed the project site from reserve status and designated the site for future residential land use.

Proposed Planned Community District Zoning regulations are being processed concurrently with the Tentative Tract Map. The proposed zoning was determined to have been adequately addressed in EIR #059. However, included within the scope of this report is a discussion of the Planned Community zoning[1] impacts to further clarify the ramifications of the proposed project.

The purpose of the EIR is to present the results of a comprehensive analysis of the proposed project, the environmental impacts, which this project will cause, and mitigation measures, which will eliminate or lessen the anticipated impacts.

This supplemental environmental impact report is intended to be used as an informational document (as required by law) and is subject to public review, agency review and consideration by the County of Orange. During the review process, this report is subject to amendment to reflect the concerns and positions of reviewing agencies and the public concerning the impact of the project. When all interested persons have had the opportunity to comment on the adequacy of the report, the County will then make a determination of the report's adequacy.

[1] A reproduction of the Planned Community Zoning Text follows:

SECTION V — COMMERCIAL DEVELOPMENT REGULATIONS

1. Intent

   These regulations provide for convenience facilities and goods to serve the needs of the immediate neighborhood. Permitted uses include limited professional, retail, service and commercial uses.

2. Uses Permitted and Site Development Standards

   - Neighborhood Commercial Developments shall be developed wherever shown on the Development Plan in conformance with provisions of SECTION CN, "Commercial Neighborhood" District Section 7-9-89 of the Orange County Zoning Code.

The Gas Company

Orange Coast Region

January 10, 1997

County of Orange / E M
P.O. Box 4048
Santa Ana, Ca 92702-4048

Attention Raymond H C Brantley

Southern California
Gas Company
Mailing Address
Box 3334
Anaheim, CA
92803-3334

Subject Saddleback Meadows Residential Development

This letter is not to be interpreted as a contractual commitment to serve the proposed project but only as an information service. Its intent is to notify you that the Southern California Gas Company has facilities in the area where the above named project is proposed. Gas service to the project could be served from an existing main as shown on the attached atlas sheet without any significant impact on the environment. This service will be in accordance with the company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.

The availability of natural gas service, as set forth in this letter, is based upon present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under the jurisdiction of the federal regulatory agencies. Should these agencies take any action which affects gas supply or the condition under which service is available, gas service will be provided in accordance with revised conditions.

Residential (System Area Average)	Yearly
Single-family	750 therms/year/dwelling unit
Multi-family units	475 therms/year/dwelling unit

These averages are based on total gas consumption in residential units served by Southern California Gas Company during 1985 and it should not be implied that any particular home, apartment or group of homes will use these amounts of energy.

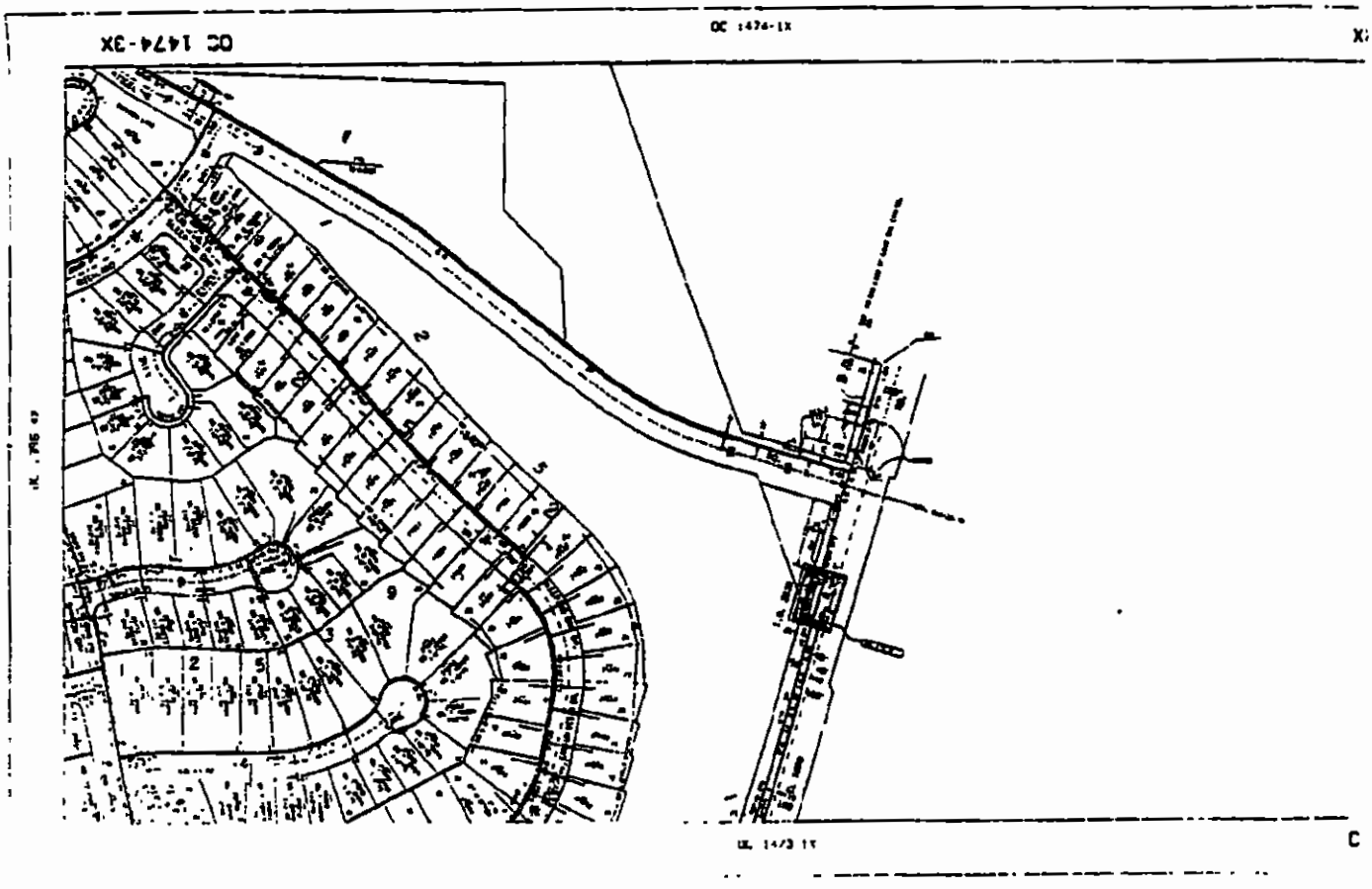
We have developed several programs which are available, upon request, to provide assistance in selecting the most energy efficient appliances or systems for a particular project. If you desire further information on any of our energy programs, please contact the office at (800)427-2000 for assistance.

Sincerely,

Robert S Worth
Technical Supervisor

jpc
attachment

ERRES.DOC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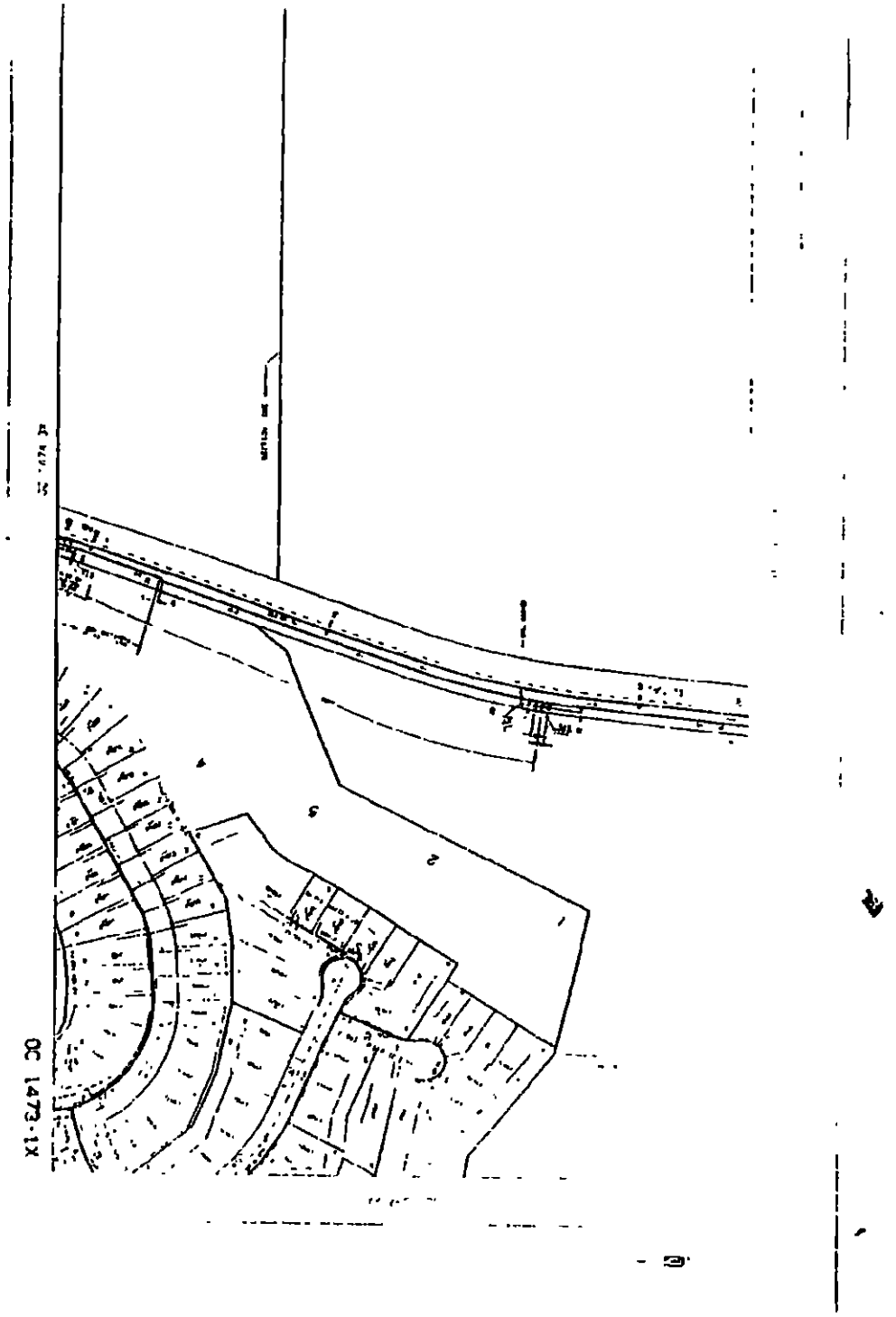

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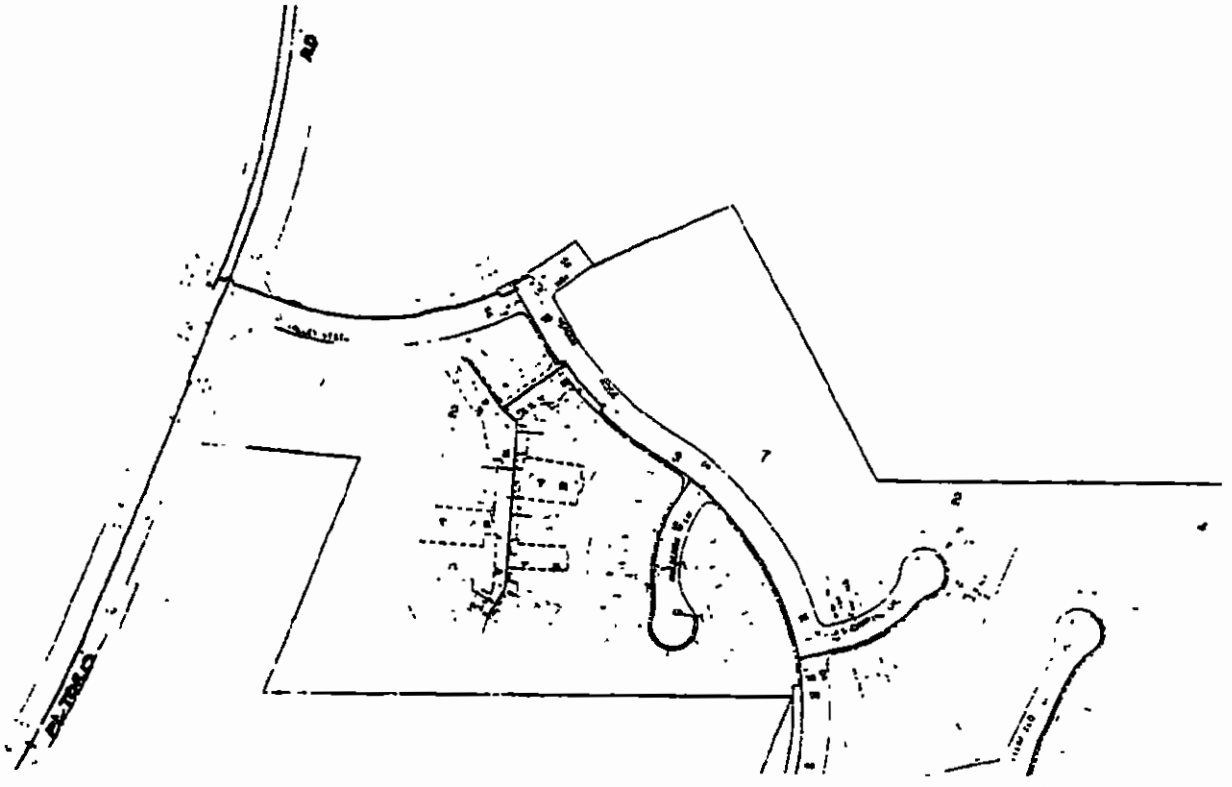

OC 1473-3X

Attachment D

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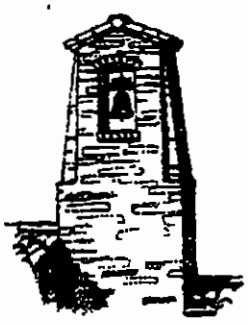
JAN 22 1997



VEDANTA SOCIETY OF SOUTHERN CALIFORNIA
RAMAKRISHNA MONASTERY

P O. BOX 408 TRABUCO CANYON, CA 92678 PHONE & FAX. (714) 858-0342

Mr. Ray Brantley
Environmental Management Agency
P.O. Box 4048
Santa Ana, California 92702-4048

January 20, 1997

Re. Saddleback Meadows Residential Development and DEIR 566

Dear Mr. Brantley,

In response to the Notice of Preparation of Environmental Impact Report 566, we wish to call your attention to the following

1. On October 22, 1996 the Board of Supervisors not only voted down the previous plan of the developer but also recommended that the property be returned to acreage.
2. The proposed alternatives to the project which will be evaluated in EIR 566 were also voted down by the Board of Supervisors on October 22, 1996.
3. In the preparation of EIR 561 for the previous plan, the developer knowingly and willfully used inadequate geophysical data in an attempt to show that their plan was viable.
4. It was proven during the process of reviewing the previous plan that it violated the Trabuco Specific Plan as well as the General Plan. The fact that the TSP was adopted by the Board of Supervisors after the Trailer Park had been in approved in 1979 clearly indicates that the applicant's rights are not vested.
5. The geophysical conditions of the property are insurmountable, and the grading required to attempt to correct them poses a severe threat to the geophysical stability of surrounding properties, including the Ramakrishna Monastery. This was clearly substantiated by the testimony of several geophysical and civil engineers during the review process of the previous plan.
6. The grading required for the proposed project threatens the deed restrictions of the 240 acres of property given by the Vedanta Society to Orange County in 1974 If these restrictions were violated, the Vedanta Society would take legal action to reclaim ownership of the deeded property.
7. The proposed plan is wholly incompatible with the rural nature of the Trabuco Canyon area and surrounding properties

8 It is an environmentally destructive plan that provides no mitigation measures for preserving wildlife habitat and corridors, natural vegetation, etc.
9. It would result in severe traffic conditions in an area that has a very inadequate roadway system.
10. The residents of the proposed project, as well as their properties, would be placed at great risk because of limited road access, the certainty of land movement, and potential severe weather and environmental conditions such as very strong winds and brush fires.
11. The proposed project would constitute a major leap backwards in the efforts of the County, the residents of Trabuco Canyon, and the neighboring property owners to preserve the unique rural nature of the area

Sincerely yours,

Richard Jennings

Richard Jennings

Attachment D

RUTAN & TUCKER, LLP
ATTORNEYS AT LAW
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS
611 ANTON BOULEVARD, SUITE 1400
COSTA MESA, CALIFORNIA 92626-1998
DIRECT ALL MAIL TO: P O BOX 1950
COSTA MESA, CALIFORNIA 92628-1950
TELEPHONE (714) 641-5100
FAX (714) 546-9035

January 3, 1997

Raymond H. C. Brantley
Orange County Environmental Management Agency
P. O. Box 4048
Santa Ana, California 92702-4048

Re: Project No. GA960048 - Saddleback Meadows; Notice of Preparation

Dear Mr. Brantley:

I am in receipt of a "Notice of Preparation" dated December 24, 1996, for the above-referenced project. As you may know from former correspondence, our office represents St. Michael's Abbey, which is adjacent to the project site.

As an initial matter, please be advised that the "Public Notice" makes reference to a 705-unit project, while the "Initial Study," under "Description of Project," recites a 318 single-family project. Obviously, there is some confusion regarding the project that is being proposed, which must be resolved.

Second, in connection with the Environmental Analysis Checklist, under the category "Land Use and Planning," the project's compliance with General Plan and Foothill/Trabuco Specific Plan must be thoroughly analyzed. It is this office's understanding that a 705-unit project may not proceed, because this project failed to receive even staff level approval when previously proposed. Since the Foothill/Trabuco Specific Plan for the Bridlewood area requires CEQA analysis with respect to the grading impacts of the 705-unit plan, and since this analysis has already been provided and rejected by staff, it would appear the current viability of the 705-unit plan is nonexistent. This must be analyzed in detail.

In addition, the potential impacts to St. Michael's Abbey of the project must be analyzed in depth, including potential soils stability impacts from the massive 10 million cubic yards of

grading proposed. Significant analysis has already been done on a less-intense proposal, which failed to reduce all identified earth resource impacts to a level of insignificance.

In addition, we believe the EIR must discuss population and housing, since the addition of 705 units may have a significant effect on local population, and may induce substantial growth in the area. Traffic impacts, particularly those on public transportation, must also be described at length.

The EIR will have to give full discussion to biologic resources, including the Riverside Fairy Shrimp. In addition, discussion should be made of other threatened species which may or do appear on the property, including the Western Spadefoot Toad.

Air quality impacts must be thoroughly addressed, particularly given the intensive traffic, parking, and average daily trip projections set forth in the Notice of Preparation. St. Michael's Abbey is identified as a sensitive receptor in the project vicinity, and expected impacts on this site should be specifically tested and discussed.

St. Michael's Abbey can also be expected to be impacted in terms of noise and glare. The potential impacts to the Abbey from noise and glare, in addition to current view impacts and impacts on the rural surroundings which currently exist, should be thoroughly treated and discussed.

Regarding recreation resources, the EIR should discuss how the impacts from a heavy concentration of 705 units of housing will be addressed in the immediate area. Specifically, some set aside or dedication of on-site park land should be required, in order to provide recreational resources within a reasonable distance to the persons who will use them, as generated by the project. This becomes all the more acute, since our understanding is that 75% of the units must be affordable, and may be marketed to persons with limited or no means to travel to distant, regional areas.

In areas of public services, there should be a full explanation of how impacts on the Saddleback Valley Unified School District will be mitigated, since all schools in the project vicinity are at capacity.

Finally, the range of alternatives should be expanded beyond that currently discussed. For each environmentally superior alternative that is rejected, the EIR must state findings, supported by facts in the record, regarding the infeasability of the rejected alternative.

RUTAN & TUCKER, LLP
ATTORNEYS AT LAW
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

Thank you for the opportunity to comment to the Notice of Preparation. Please keep my name on the list of all of those parties who will be receiving notices in connection with any or all proceedings on the proposed project.

Very truly yours,

RUTAN & TUCKER, LLP

David B. Cosgrove

DBC/tr

cc: Fr. Hugh Barbour

159/099999-2129/306354. a01/03/97

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO 95814

PETE WILSON
GOVERNOR

LEE GRISSOM
DIRECTOR

DATE: December 31, 1996

TO: Reviewing Agencies

RE: SADDLEBACK MEADOWS RESIDENTIAL DEVELOPMENT
SCH# 96121072

Attached for your comment is the Notice of Preparation for the SADDLEBACK MEADOWS RESIDENTIAL DEVELOPMENT draft Environmental Impact Report (EIR).

Responsible agencies must transmit their concerns and comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

RAYMOND H.C. BRANTLEY
ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
P.O. BOX 4048
SANTA ANA, CA 92702-4048

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call at (916) 445-0613.

Sincerely,

Antero A. Rivasplata

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Attachments

cc: Lead Agency

S = sent by lead agency
X = sent by SCH

Resources Agency

- [X] **Nadell Gayou**
  Resources Agency
  1020 Ninth Street, Third Floor
  Sacramento, CA 95814
  916/327-1722 Fax 916/327-1648
- [ ] **Nicole Ledris**
  Dept. of Boating & Waterways
  1629 S Street
  Sacramento, CA 95814
  916/445-6281 916/327-7250
- [X] **Elizabeth A. Fuchs**
  California Coastal Commission
  45 Fremont Street, Suite 1970
  San Francisco, CA 94105-2219
  415/904-5200 Fax 415/904-5400
- [ ] **Reed Holderman**
  State Coastal Conservancy
  1330 Broadway, Suite 1100
  Oakland, CA 94612
  510/286-1015 Fax 510/286-0470
- [X] **Keren Yoorli**
  Dept. of Conservation
  801 K Street, MS-24-02
  Sacramento, CA 95814
  916/445-8733 Fax 916/324-0948
- [ ] **Dale Wiersma**
  Dept. of Forestry
  1416 Ninth Street, Room 1516-2
  Sacramento, CA 95814
  916/653-9451 Fax 916/653-0989
- [ ] **Hans Kreutzberg**
  Office of Historic Preservation
  P.O Box 942896
  Sacramento, CA 94296-0001
  916/653-9107 Fax 916/653-9824
- [X] **Environmental Review**
  Dept of Parks and Recreation
  P O. Box 942896
  Sacramento, CA 94296-0001
  916/653-0538
- [ ] **Environmental Review**
  Reclamation Board
  1416 Ninth Street, Room 1615
  Sacramento, CA 95814
  916/327-1331 Fax 916/327-1600
- [ ] **Steve McAdam**
  S.F. Bay Conservation & Dev't. Comm.
  30 Van Ness Avenue, Room 2011
  San Francisco, CA 94102
  415/557-3686 Fax 415/557-3767
- [ ] **Nadell Gayou**
  Department of Water Resources
  1020 Ninth Street, Third Floor
  Sacramento, CA 95814
  916/327-1722 Fax 916/327-1648

Health & Welfare

- [ ] **Kim Dinh**
  Dept. of Health
  601 N 7th Street, PO Box 942732
  Sacramento, CA 94234-7320
  916/323-6111 Fax 916/327-6092

Fish and Game - Regional Offices

- [ ] **Richard L. Elliott, Regional Manager**
  Department of Fish and Game
  601 Locust
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  916/225-2363 Fax 916/225-2381
- [ ] **Ryan Broddrick, Regional Manager**
  Department of Fish & Game
  1701 Nimbus Road, Suite A
  Rancho Cordova, CA 95670
  916/358-2900 Fax 916/358-2912
- [ ] **Brian Hunter, Regional Manager**
  Department of Fish and Game
  P.O. Box 47
  Yountville, CA 94599
  707/944-5518 Fax 707/944-5563
- [ ] **George Nokes, Regional Manager**
  Department of Fish and Game
  1234 East Shaw Avenue
  Fresno, CA 93710
  209/445-6152 Fax 209/445-6607
- [X] **Department of Fish and Game**
  Environmental Services
  330 Golden Shore, Suite 50
  Long Beach, CA 90802
  310/590-5132 Fax 310/590-5192

Independent Commissions/Agencies

- [ ] **California Energy Commission**
  1516 Ninth Street, MS-15
  Sacramento, CA 95814
  916/654-3944
- [ ] **Native American Heritage Comm.**
  915 Capitol Mall, Room 364
  Sacramento, CA 95814
  916/653-4082 Fax 916/657-5390
- [ ] **Douglas Long**
  Public Utilities Commission
  505 Van Ness Avenue
  San Francisco, CA 94102
  415/703-2011 Fax 415/703-1965
- [X] **Betty Silva**
  State Lands Commission
  100 Howe Avenue, Suite 100-S
  Sacramento, CA 95826
  916/574-1872 Fax 916/574-1885
- [ ] **Gerald R. Zimmerman**
  Colorado River Board
  770 Fairmont Avenue, Suite 100
  Glendale, CA 91203-1035
  818/543-4676 Fax 818/543-543-4685
- [ ] **Tahoe Regional Planning**
  Environmental Review
  P O Box 1038
  Zephyr Cove, NV 89448
  702/588-4547 Fax 702/588-4527
- [ ] **Thomas Ottoman**
  Office of Emergency Services
  P O Box 29998
  San Francisco CA 94129
  415/666-9300
- [ ] **Debby Eddy**
  Delta Protection Commission
  P O Box 530
  Walnut Grove, CA 95690
  916/776-7290 FAX 776-2293

Department of Transportation
District Contacts

- [ ] **Martin Urkofsky**
  Caltrans, District 1
  1656 Union Street
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  707/445-5812 Fax 707/445-5869
- [ ] **Gary Otremba**
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- [ ] **Marc Birnbaum**
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  209/448-4088 Fax 209/488-4101
- [ ] **Stephen J. Burwell**
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  Los Angeles, CA 90012
  213/897-4429 Fax 213/897-4358
- [ ] **Harvey Sawyer**
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  San Bernardino, CA 92402
  909/383-4808 Fax 909/383-7934
- [ ] **Robert Rubinke**
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  Bishop, CA 93514
  619/872-0689 Fax 619/872-0678
- [ ] **Dana Cowell**
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  209/948-7906 Fax 209/948-7906
- [ ] **Lou Salazar**
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  P O Box 85406, MS 5-3
  2829 Juan Street
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  619/688-6002 Fax 619/688-2511
- [X] **Aileen Kennedy**
  Caltrans, District 12
  2501 Pullman St.
  Santa Ana, CA 92705
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Business, Transportation, & Housing

- [ ] **Sandy Hesnard**
  Caltrans - Division of Aeronautics
  P O Box 942874
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  916/324-1843 Fax 916/327-9093
- [ ] **Alice Huffaker**
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  Office of Special Projects
  Planning and Analysis Division
  2555 1st Ave.
  Sacramento, CA 95818
  916/657-7222 Fax 916/452-3151
- [ ] **Ron Helgeson**
  Caltrans - Planning
  P O. Box 942874
  Sacramento, CA. 94274-0001
  916/653-9966 Fax 916/653-0001

State and Consumer Services

- [ ] **Robert Sleppy**
  Dept. of General Services
  400 R Street, Suite 5100
  Sacramento, CA 95814
  916/324-0214 Fax 916/322-3987
- [ ] **Office of Local Assistance**
  501 J Street, Suite 400
  Sacramento, CA 95814
  916/445-3160

California Environmental Protection Agency

- [X] **Mike Tollstrup**
  Air Resources Board
  2020 L Street
  Sacramento, CA 95815
  916/322-8267 Fax 916/322-5982
- [X] **Mark deBie**
  Calif. Waste Management Board
  8800 Cal Center Drive
  Sacramento, CA 95826
  916/255-4164 Fax 916/255-4071
- [ ] **Wayne Hubbard**
  State Water Resources Control Board
  Division of Clean Water Programs
  P.O Box 944212
  Sacramento, CA 94244-2120
  916/227-4408 Fax 916/227-4549
- [ ] **Phil Zentner**
  State Water Resources Control Board
  Division of Water Quality
  P O Box 944213
  Sacramento, CA 94244-2130
  916/657-0912 Fax 916/657-2388
- [ ] **Mike Falkenstein**
  State Water Resources Control Board
  Division of Water Rights
  901 P Street, 3rd Floor
  Sacramento, CA 95814
  916/657-1377 Fax 916/657-1485
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
  400 P Street, Fourth Floor
  P O Box 806
  Sacramento, CA 95812-0806
  916/324-3119 Fax 916/324-1788

Regional Water Quality Control Board

- [ ] **NORTH COAST REGION (1)**
  5550 Skylane Blvd., Suite A
  Santa Rosa, CA 95403
  707/576-2220 Fax 707/523-0135
- [ ] **SAN FRANCISCO BAY REGION (2)**
  2101 Webster, Suite 500
  Oakland CA 94612
  510/286-1255 Fax 510/286-1380
- [ ] **CENTRAL COAST REGION (3)**
  81 Higuera Street, Suite 200
  San Luis Obispo, CA 93401-5427
  805/549-3147 Fax 805/543-0397
- [ ] **LOS ANGELES REGION (4)**
  101 Centre Plaza Drive
  Monterey Park, CA 91754-2156
  213/266-7556 Fax 213/266-7600
- [ ] **CENTRAL VALLEY REGION (5)**
  3443 Routier Road Suite A
  Sacramento, CA 95827-3098
  916/255-3000 Fax 916/255-3015
  - ○ **Fresno Branch Office**
    3614 East Ashlan Avenue
    Fresno, CA 93726
    209/445-5116 Fax 209/445-5910
  - ○ **Redding Branch Office**
    415 Knollcrest Drive
    Redding, CA 96002
    916/224-4845 Fax 916/224-4857
- [ ] **LAHONTAN REGION (6)**
  2501 Lake Tahoe Boulevard
  South Lake Tahoe, CA 96150
  916/542-5400 Fax 916/544-2271
  - ○ **Victorville Branch Office**
    15428 Civic Drive, Suite 100
    Victorville, CA 92392-2359
    619/241-6583 Fax 619/241-7308
- [ ] **COLORADO RIVER BASIN REGION (7)**
  73720 Fred Waring Drive, #100
  Palm Desert, CA 92260-2564
  619/346-7491 Fax 619/341-6820
- [X] **SANTA ANA REGION (8)**
  3737 Main Street, Suite 500
  Riverside, CA 92501-3339
  714/782-4130 Fax 909/781-6288
- [ ] **SAN DIEGO REGION (9)**
  9771 Clairemont Mesa Blvd., Suite B
  San Diego, CA 92124-1331
  619/467-2952 Fax 619/571-6972

- [ ] OTHER _____
- [ ] OTHER _____

SCH 10/8/96

UNITED STATES MARINE CORPS
MARINE CORPS AIR BASES WESTERN AREA EL TORO
PO BOX 68001
SANTA ANA CA 92709-8001

IN REPLY REFER TO

11103.15
AQ/SaddleM
7 Jan 97

ENVIRONMENTAL MANAGEMENT AGENCY
ATTN MR RAYMOND BRANTLEY
P O BOX 4048
SANTA ANA CA 92702-4048

NOTICE OF INTENT TO PREPARE A DRAFT EIR (#566) FOR SADDLEBACK MEADOWS RESIDENTIAL DEVELOPMENT

Dear Mr. Brantley,

The above Notice of Intent has been reviewed and we have no comments at this time.

Thank you for the opportunity to comment on this land use proposal. If you have any further questions, please contact Ms. Desiree Garrison at (714) 726-3702.

Sincerely,

D. P. PENDER
Colonel, U.S. Marine Corps
Community Plans and Liaison Officer
By direction of the Commander

County of Orange

MEMO

January 14, 1997

TO: Raymond Brantley
EMA/Planning/Environmental & Project Planning

FROM: Kevin H. Kondru, Manager
IWMD/Engineering Support Services

SUBJECT: Notice of Intent to Prepare a Draft Environmental Impact Report (No. 566)

The County of Orange Integrated Waste Management Department (IWMD) staff has reviewed the Notice of Intent for the above-referenced project. IWMD has no comment regarding the existing information included in the Notice of Intent and Negative Declaration (ND). However, the ND should elaborate on the proposed project's use of technology for minimizing or recycling waste products. In addition, special landscape treatments to reduce the amount of yard trimmings and waste should be presented.

If you need any additional information, please contact Karen DiCarlo at (714) 834-4107.

cc: Karen DiCarlo, IWMD
Central Files

S:\ESS\NCL1-11.DOC:KD:mrb January 14, 1997

STAFF MEMBERS

Bruce Boner, General Manager
Bowie, Arneson, Kadl, Wiles
and Giannone, Legal Counsel
Carl R. Schoonover, Treasurer

TRABUCO CANYON
WATER DISTRICT

BOARD OF DIRECTORS

Don Chadd, President
Mike Safranski, Vice President
Corinne Leskot, Director
Jim Haselton, Director
Matthew Dission, Director

RECEIVED
JAN 22 1997

January 21, 1997

Raymond H. C. Brantley
Environmental & Project Planning
Environmental Management Agency
P. O. Box 4048
Santa Ana, CA 92702-4048

RE: Project Title: Saddleback Meadows Residential Development
Subject: Notice of Intent to Prepare a Draft Environmental Impact Report #566

Dear Mr. Brantley:

Trabuco Canyon Water District has reviewed to above-captioned matter and finds no unexpected potential significant impacts with regard to the water and sewer systems.

Very truly yours,

Bruce Boner

Bruce Boner
General Manager

BB:ses

32003 Dove Canyon Drive, Trabuco Canyon, CA 92679 · 714/858-0277 · Fax: 714/858-3025
Mailing Address: P.O. Box 500, Trabuco Canyon, CA 92678

Attachment D

ORANGE COUNTY FIRE AUTHORITY

PO Box 86, Orange, CA 92856-0086 • 180 South Water St., Orange, CA 92866-2175

Larry J. Holms, Director of Fire Services *(714) 744-0400*

January 17, 1997

Raymond Brantley
EMA/Environmental and Project Planning
P.O. Box 4048
Santa Ana, Ca 92702-4048

Subject: Notice of Intent to Prepare a Draft Environmental Impact Report #566

Dear Mr. Brantley:

Orange County Fire Authority (OCFA) staff have reviewed the initial study for the draft EIR for the proposed Saddleback Meadows residential development. In reviewing the NOP, we have the following comments/concerns:

1. The proposed development is within a Special Fire Protection Area and must meet all adopted fuel modification, street width and construction requirements (including Class A roofs, 1 hour fire resistive ratings on the exterior of all structures, multi-glazed windows, etc.) for development in the designated Area.

2. All developments over 150 units must provide a minimum of two points of access into the development. Both access drives or must meet OCFA standards.

Please contact me at (714)744-0485 if you have any questions.

Respectfully,

Laura Braul,
Deputy Fire Marshal

County of Orange

MEMO

DATE: January 9, 1997

TO: George Britton, Manager, P&DS/Z&PPD

FROM: Joan S. Golding Manager, P&DS/APD

SUBJECT: Saddleback Meadows NOP/DEIR 566

Advance Planning staff have reviewed the Notice of Preparation (NOP) for the Saddleback Meadows Residential Development project and have the following comments and proposed mitigation measures:

COMMENTS:

AFFORDABLE HOUSING.

Saddleback Meadows retains a requirement that 66 2/3 percent of all residential units built be affordable under the Orange County Housing Element affordable guidelines. The EIR should include a discussion of Housing Element affordable requirements and how they will be implemented as part of this project.

PROPOSED MITIGATION MEASURES:

BIOLOGICAL AND WATERSHED RESOURCES:

Fund the removal of arundo donax in the Aliso Creek Corridor in partial compensation for the proposed project's biological impacts to the Aliso Creek Corridor. The arundo removal shall be adjacent to and in the vicinity of the proposed project at an acreage ratio of 3 to 1 (for arundo removal to the creek area impacted).

EXISTING FEE PROGRAMS:

- Library: Tract and parcel maps within the proposed project shall be subject to the following condition:

  Prior to the recordation of any final tract/parcel map (except for financing purposes), the project proponent shall enter into a secured agreement with the County of Orange to pay development fees for the South County Canyons Library as provided in Sections 7-9-700 through 7-9-713 of the Codified Ordinances of the County of Orange and Board Resolution No. 87-1684. This agreement shall contain:

  a) provision for payment or financial security for participation by the project proponent in the construction, equipment and collection of the library facility, subject to adjustment for inflation;

b) provision for payment of these funds is to be generally phased with development and in accordance with an established payment schedule.

- Fire: Tract and parcel maps within the proposed project shall be subject to requirements for subsequent agreements and fees as determined by the Orange County Fire Authority.

- Sheriff: Tract and parcel maps within the proposed project shall be subject to requirements for subsequent agreements and fees as determined by the Orange County Sheriff-Coroner.

Thank you for the opportunity to comment on this project. Should you have any questions or desire further information, please feel free to contact me (834-6007) or Ruby Maldonado, of my staff, directly. Ruby can be reached at 834-2520.

for Joan S Golding

RM 7010910202360
EP53300

County of Orange

MEMO

DATE: JAN 0 8 1996

TO: Ray Brantley, Environmental & Coastal Planning

FROM: Ignacio Ochoa, Traffic Engineering

SUBJECT: Saddleback Meadows Notice of Preparation

Traffic Engineering has completed its review of the subject document and has found some inconsistencies between the Public Notice page, the Initial Study page, the Environmental Analysis Checklist pages and the subsequent pages. These inconsistencies are as follows:

1. The project on the Public Notice page is identified as 705 manufactured, single-family residential units, whereas the the Initial Study page describes the project as a 318 single-family detached residential development.

2. The Public Notice page states that 69%, or 158 acres of the project site would be impacted with 71 acres being reserved for open space. On page 1 under Project Description, however, 90% of site is identified as being impacted with 10% remaining as open space.

3. In the Environmental Analysis Checklist pages under Transportation/Circulation, the project is identified as having a less than significant impact or no impact in all of the traffic-related categories. On page 2 under Summary of Potentially Significant Impacts, however, the report states that it has been determined that there is substantial evidence that significant effects may occur in various areas including Transportation.

Ignacio Ochoa

DJC:wps

Attachment D

San Joaquin Hills Corridor Agency
Chairman: Patricia Bates, Laguna Niguel

Foothill/Eastern Corridor Agency
Chairman: Scott Diehl, San Clemente

RECEIVED
JAN 1997

TRANSPORTATION CORRIDOR AGENCIES

William Woollett, Jr.
Chief Executive Officer

Walter D. Kreutzen
Executive Vice President
Finance & Administration

Gregory G. Henis
Executive Vice President
Design & Construction

January 2, 1997

Mr. Raymond H.C. Brantley
Manager
Environmental & Project Planning
300 N. Flower, Rm 321
Santa Ana, CA 92702-4048

Subject: EIR #566; Saddleback Meadows Residential Development

Dear Mr. Brantley:

Thank you for providing the Transportation Corridor Agencies with the opportunity to review and comment on the Notice of Preparation for subject EIR. Staff has reviewed the NOP and has no comments at this time.

Should you have any questions regarding this response, please contact Laura Coley Eisenberg of my staff at (714) 513-3482.

Sincerely,

Steve Letterly, Director
Environmental Services

201 E. SANDPOINTE AVE., SUITE 200 P.O. BOX 28870, SANTA ANA, CA 92799-8870 714/436-9800 FAX 714/436-9848

Members: Anaheim • Costa Mesa • County of Orange • Dana Point • Irvine • Lake Forest • Laguna Hills • Laguna Niguel • Mission Viejo • Orange • Newport Beach • Santa Ana • San Clemente • San Juan Capistrano • Tustin • Yorba Linda

Recycled Paper

County of Orange

MEMO

DATE: January 28, 1997

TO: Raymond Brantly, Chief, Environmental & Project Planning

FROM: Johnnie Barnett, Chief, Geotechnical/Grading Plan Check

SUBJECT: Review of Notice of Intent to Prepare a Draft Environmental Impact Report # 566 - Saddleback Meadows Residential Development - Tract 10692 - Grading Application GA960048

This site has been the object of several previous studies. Applicable comments contained in the second screencheck review of the Draft Environmental Impact Report EIR #561 issued on December 29, 1995 should be addressed in the subject EIR #566. A copy of those comments are attached.

According to the subject document approximately 10 % of the site is to remain open space. Based upon previous reviews, mitigation measures will require encroachment into this area. Although the areas will remain open space grading operations will remove a large portion of the natural vegetation.

The impact that grading operations will have upon the stability of adjacent property and vice versa must be addressed and appropriate mitigation/corrective grading measures provided.

If the site is to be graded in phases appropriate grading measures must be provided to demonstrate that each phase will have adequate stability.

As noted above consideration must be given to the impact that grading activity will have upon the biological resources of the area.

PC0606

Attachment D

County of Orange

MEMO

DATE: December 29, 1995

TO: Mr. Ray Brantley, Chief, Environmental and Coastal Planning

FROM: Johnnie K. Earnest, Chief, Geotechnical/Grading Plan Check

Subject: Second Screencheck review of Section 4.2 Soils and Geology, Draft Environmental Impact Report dated December 1995 issued for Saddleback Meadows EIR 561

Geotechnical Environmental Impact Report Saddleback Meadows Development, Tentative Tract 15230, El Toro Road, Orange County, California issued by G.A.Nicoll and Associates, Inc. dated November 27, 1995, Project 4816-07

The following comments are made relative to the review of the above referenced section of the EIR prepared for the Saddleback Meadows by Urban Vision and the above referenced report by G.A.Nicoll and Associates, Inc.

Comments 1) through 6) were made upon my completion of the first screencheck dated November 6, 1995 and with the exception of item number 4 remain for the most part applicable.

1) The geotechnical report submitted with the EIR 561 (appendix D) was originally submitted for the evaluation of the proposed development of Tract 10692. Although this report was not approved it did identify some of the problematic areas associated with future development (existing landslides and other zones of weakness). One of the most critical items being the stability of the site upon completion of the proposed remedial/corrective grading and the impact that the proposed grading (both interim and final) will have upon the adjacent property. According to the information provided under Section 4.2 a supplemental geotechnical investigation has been performed for Tract 10692. However this report apparently has not been included in the subject EIR. This report should be included as it may contain information that would clarify and/or resolve some of the concerns previously expressed regarding geometry of the landslides (deepest rupture surface or zone of weakness), justification of parameters used in the stability analyses, impact of groundwater upon stability, total and differential settlement, location of buttress/stabilization keyways, stability of backcuts especially those impacting off-site property.

2) Based upon the information contained in the geotechnical report it appears that the depth of removal (4 to 5 feet) stated in the EIR is somewhat misleading.

3) There is a discrepancy between the landslides designated on the plan submitted with the original geotechnical investigation report dated January 6, 1994 and that shown by Exhibit 17 contained in the subject EIR 561.

PAGE 2 EIR 561

4) The geotechnical report should address the development now being proposed (Tract 15230).

5) Although some of the data being requested at this time normally is not submitted until a grading permit application is requested, it is deemed appropriate due to the potential problems that exist relative to the adjacent off-site property.

6) A grading permit will be required for all specific site developments.

The following observations were made during the review of the G.A.Nicoll report dated November 27,1995.

7) Soil parameters reported in Table II for use in stability calculations appear to be somewhat higher than those used by most consultants, especially when analyzing basal rupture surface. These values also appear to be higher than those utilized in your previous stability calculations.

8) Cross sections provided should extended to include all areas having an impact upon the stability of the proposed development e.g. Section B-B terminates some 700 to 750 feet short of the crest of the hillside and some 450 to 500 feet short of test boring BB-9 which identified landslide debris to a depth of 61+ feet.

9) Discuss the impact that the excavation of the keyway proposed adjacent to the Fathers of Norbertine property will have upon the stability of the site.

10) Seismic analyses although not included with the subject report appear to have been conducted utilizing an acceleration value of 0.13 g. inlieu of the value of 0.15 g. which is a minimum value allowed by County Code for seismic analyses. This inconsistency has been noted in previous review sheets.

11) It appears that additional subsurface exploration and evaluation work has been performed relative to the proposed development. All of this information should be included in the subject report.

01/28/97 13:47 PROJECT PLANNING → 98510382 NO.384 P002
JAN-27-97 MON 3:44 CITY OF MISSION VIEJO FAX NO. 5829083 P.01/07

William S. Craycraft
Mayor
Susan Withrow
Mayor Pro Tem
Sherri M. Butterfield
Council Member
Thomas R. Potocki
Council Member
Larry Smith
Council Member

City of Mission Viejo

SENT VIA FACSIMILE
(ORIGINAL TO FOLLOW BY MAIL)

January 27, 1997

Mr. Raymond H. C Brantley
County of Orange
Environmental and Project Planning Division
300 North Flower Street, Room 321
Santa Ana, California 92702-4048

Dear Mr. Brantley:

RE: City of Mission Viejo Comments to the Notice of Preparation for the Saddleback Meadows Residential Development: Draft Environmental Impact Report #566

The City of Mission Viejo has concluded its review of the Notice of Preparation for the Saddleback Meadows Residential Development Draft Environmental Impact Report (Draft EIR) No. 566. The City has identified a series environmental issues which warrant detailed analysis in the Draft EIR. These comments are included as Attachment 1 to this transmittal.

A major emphasis of the City's comments relate to El Toro Road. As you are well aware, El Toro Road is a vital transportation link to both the Saddleback Meadows project and residential/commercial development in the City of Mission Viejo. The attached comments reflect the City of Mission Viejo's desire that the Draft EIR fully address the capacity and timing of El Toro Road improvements for both the proposed project as well as each of the project alternatives. As a component of the Orange County Master Plan of Arterial Highways (MPAH) and the Congestion Management Program Highway System, El Toro Road must be thoroughly analyzed, and mitigation measures must be considered, to insure that development intensity and infrastructure capacity are appropriately balanced.

We look forward to working with your staff and your environmental consultant to ensure that areawide transportation infrastructure needs are effectively planned and implemented.

Sincerely,

Clint Sherrod
Community Development Director

Attachment: City of Mission Viejo Comments: Saddleback Meadows Notice of Preparation; Draft EIR #566

cc: Dennis R. Wilberg, Assistant City Manager/Director of Public Works
Shirley Land, City Transportation Engineer, Public Works Department
Karen Verlaan, Senior Planner, Community Development Department
Gail Shiomoto-Lohr, GSL Associates

Attachment One
City of Mission Viejo Comments
Saddleback Meadows Residential Development Notice of Preparation
Draft Environmental Impact Report No. 566

1. Proposed Project and Project Alternatives:

The Notice of Preparation identifies a proposed project of 705 manufactured, single family residential units and three alternate development scenarios for the Saddleback Meadows site. The three alternate development scenarios consist of two staff alternatives, in addition to the original residential development proposal analyzed in Draft EIR 561. In summary, the development intensities of the four development alternatives are as follows:

a.	Proposed project:	705 manufactured, single family residential units
b.	Staff Alternative A:	150 single family units
c.	Staff Alternative B:	100 single family units
d.	DEIR 561 Alternative:	318 single family units

Page 1 of the Initial Study (#GA 960048) identifies the proposed project as 318 single-family detached residential units, which conflicts with the project description identified in the public notice and the narrative appendix to the Initial Study (705 manufactured, single family units).

Recommended Action:

Revise the Initial Study to define a consistent project description of the proposed project and its alternatives.

2. Traffic Analysis of Proposed Project and Project Alternatives

The Saddleback Meadows Draft EIR includes a proposed project and three alternate development scenarios for the project site.

Recommended Action:

The City of Mission Viejo requests that the traffic study in Draft EIR 566 analyze and quantify the circulation impacts of not only the proposed project, but also each of the development alternatives, upon impacted roadways and intersections in the study area.

3. El Toro Road: MPAH Designation

In Draft EIR 561, El Toro Road was assumed as a Primary Arterial highway, a designation that was inconsistent with the Major Arterial highway designation defined by the Orange County Master Plan of Arterial Highways. The current Initial Study states that Draft EIR 566, analyzing the revised project, will address El Toro Road's arterial designation to be a primary arterial versus a major arterial.

Recommended Actions:

a. Should the Draft EIR recommend pursuit of a Primary Arterial designation for a specified segment of El Toro Road, the reclassification of El Toro Road from a six-lane Major Arterial to a four-lane Primary Arterial requires the County of Orange to process a Master Plan of Arterial Highway (MPAH) amendment, with the amendment ultimately being approved by the Orange County Transportation Authority (OCTA) board of directors.

Since Draft EIR 566 will serve as an environmental assessment for the Saddleback Meadows Grading Application GA 960048, and Subdivision Tract Map 10692, the City of Mission Viejo recommends that the vesting tentative tract map include a rights-of-way requirement for El Toro Road that allows El Toro Road to be improved as a six-lane Major Arterial roadway. This provision is requested to insure that adequate rights-of-way for ultimate El Toro Road improvements are not relinquished through the subdivision map process.

b. Recognizing that compliance with levels of service performance standards are essential through the Orange County Congestion Management Program and the Measure M Growth Management program, Draft EIR 566 should fully disclose and analyze how the down-sizing of El Toro Road from a six-lane facility to a four-lane facility will adequately serve proposed and future transportation needs of existing and future development that are serviced by the arterial roadway.

c. The OCTA MPAH guidance manual identifies that a multi-jurisdictional, cooperative process must be undertaken with any MPAH amendment that affects more than one jurisdiction. In conjunction with that process, technical data will be prepared and reviewed by Growth Management Area (GMA) forums to determine whether there is consensus on the proposed amendment. Also, in conjunction with that process, an environmental assessment of the MPAH amendment must be completed.

This multi-jurisdictional, cooperative process should be undertaken concurrently with the environmental process for Draft EIR 566, to enable representatives of affected jurisdictions to review the technical analysis for a four-lane versus a six-lane El Toro Road facility, and to review and comment upon the design and engineering plans for the study's recommended facility requirements.

d. The City of Mission Viejo continues to retain El Toro Road, within its jurisdictional boundaries, as a six-lane Major Arterial facility. The jurisdictional boundary between the City of Mission Viejo and the County of Orange generally lies immediately east of the Glenn Ranch Road intersection at El Toro Road.

In previewing the Initial Study's scope to address the appropriate MPAH designation for El Toro Road, the City of Mission Viejo cautions that the Glenn Ranch Road/El Toro Road intersection could function as a circulation bottleneck,

as one transitions--north to south--from a potential four-lane facility to a six-lane facility.

The Draft EIR must analyze, at project buildout and at General Plan buildout, the maximum feasible improvements to the Glenn Ranch Road/El Toro Road intersection, to insure that a Level of Service "D" performance standard is maintained, in compliance with Measure M Growth Management Program requirements.

The County of Orange will need to be an active participant in the maximum feasible improvement to the Glenn Ranch Road intersection, since Draft EIR 561 previously identified that seventy-five percent (75%) of project trips will use this intersection, and the intersection will experience Levels of Service F performance unless roadway improvements are appropriately phased with development.

4. El Toro Road Preliminary Design

The Initial Study states that preliminary designs for the ultimate improvement of El Toro Road to major arterial specifications will be conducted, in conjunction with a traffic/engineering study. It is unclear if this study is a component of the Draft EIR analysis, or a separate and concurrent process to be undertaken by the County of Orange.

Recommended Actions:

a. If pursued as a separate and concurrent process, the City of Mission Viejo requests that the County of Orange's El Toro Road design plans be reviewed by the City of Mission Viejo, for interface and integration with a six-lane, El Toro Road design and engineering plan that will be implemented southerly of Glenn Ranch Road by the City of Mission Viejo.

b. The traffic/engineering study should also include:

1) an analysis of how and when roadway improvements to El Toro Road will be phased and constructed to achieve a roadway cross-section that effectively transitions from the existing cross-section to the interim cross section;

2) an analysis of how and when ultimate roadway improvements to El Toro Road will be transitioned from the interim cross-section to the ultimate cross section;

3) an analysis of how El Toro Road can transition from a six-lane facility in the City of Mission Viejo to a four-lane facility in county unincorporated area, while achieving a Level of Service "D" performance standard at the Glenn Ranch Road/El Toro Road intersection through Year 2020,

4) an identification of proposed intersection improvements to the intersection

of Glenn Ranch Road/El Toro Road to achieve a Level of Service "D" performance standard through Year 2020; and,

5) an identification of applicant and/or County of Orange participation in the funding of identified transportation improvements within the City of Mission Viejo.

5. Land Use Assumptions in the City of Mission Viejo:

The Saddleback Meadows residential project is located north of Planning Area 11 in the City of Mission Viejo. The City of Mission Viejo City Council, in 1995, adopted a general plan amendment which changed the land use designation of Planning Area 11 from commercial to residential.

Recommended Actions:

a. The adopted land use designation of residential development for Planning Area 11 shall be incorporated into the Year 2000 and Year 2020 land use assumptions for the DEIR traffic study.

b. The traffic analysis should also include appendices which identify the traffic analysis zones, the land use designation(s), and the land use intensities for the Planning Area 11 land uses. This will enable the City of Mission Viejo to verify if the land use assumptions in the Saddleback Meadows DEIR accurately represent the current general plan intensities.

6. Inventory of Assumed Circulation Improvements:

The Orange County Congestion Management Program (CMP) requires local jurisdictions to analyze development projects and identify the project's impacts upon the CMP Highway System. In the project study area, El Toro Road is a component of the CMP Highway System.

Recommended Actions:

a. The Draft EIR traffic study needs to provide narrative discussion that describes, in detail:

1) The degree to which the trips from the proposed project will impact CMP and Measure M arterials (i.e., the percent contribution of project impact to each intersection's Intersection Capacity Utilization value);

2) The description of the assumed, committed transportation improvements that are proposed for each intersection to improve levels of service;

3) The funding source(s) of the proposed improvements, including whether or not these exact improvements are integrated in a jurisdiction's approved capital improvement program for implementation; and the year when such improvement is programmed for completion;

4) If not incorporated into an approved capital improvement program, the funding and construction mechanism for the identified improvement;

5) Whether or not phasing of the development project is required to insure that the improvement is operational before the project occupancy is allowed;

6) Concurrence from the City of Mission Viejo on the feasibility of the proposed improvements for intersections located in the City of Mission Viejo.

7) The degree to which the project applicant is required to participate in the funding of the identified improvements.

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ASSOCIATION of GOVERNMENTS

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Printed on Recycled Paper 9/94

December 31, 1996

Mr. Raymond H.C. Brantley
Environmental and Project Planning Division
County of Orange
Environmental Management Agency
P.O. Box 4048
Santa Ana, CA 92702-4048

RE: Comments on the Notice of Preparation for the Draft EIR for the County of Orange - Saddleback Meadows Residential Development - SCAG No. I 9600451

Dear Mr. Brantley:

Thank you for submitting the Notice of Preparation for the Draft EIR for the County of Orange - Saddleback Meadows Residential Development to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

In addition, The California Environmental Quality Act requires that EIRs discuss any inconsistencies between the proposed project and the applicable general plans and regional plans (Section 15125 [b]). If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Please provide a minimum of 45 days for SCAG to review the DEIR when this document is available. If you have any questions regarding the attached comments, please contact Bill Boyd at (213) 236-1960.

Sincerely,

VIVIANE DOCHE-BOULOS
Manager, Intergovernmental Review

H:\ORCOSADR.NOP

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE COUNTY OF ORANGE - SADDLEBACK MEADOW RESIDENTIAL DEVELOPMENT

PROJECT DESCRIPTION

This project proposes the phased development of 705 manufactured, single-family residential units on a 229.2 acre site on the easterly side of El Toro Road. The gross residential density proposed is 3.17 dwellings per acre. Sixty-nine percent of the site would be impacted and 71 acres are proposed for open space use. The project is located approximately 1/2 mile south of the El Toro Road/Live Oak Canyon Road intersection in the Foothill/Trabuco Specific Plan area of unincorporated Orange County.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The Growth Management Chapter (GMC) of the Regional Comprehensive Plan and Guide (RCPG)[1] contains the following policy that is particularly applicable and should be addressed in the Draft EIR for the proposed project:

- *The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.*

The Regional Mobility Element (RME) also has policies pertinent to this proposed project. This chapter links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. Among the relevant policies of this chapter are the following:

- *Promote Transportation Demand Management (TDM) programs along with transit and ridesharing facilities as a viable and desirable part of the overall mobility program while recognizing the particular needs of individual subregions.*

- *Support the extension of TDM program implementation to non-commute trips for public and private sector activities.*

[1] See Endnote.

- *Support the coordination of land use and transportation decisions with land use and transportation capacity, taking into account the potential for demand management strategies to mitigate travel demand if provided for as a part of the entire package.*

- *Urban form, land use and site-design policies should include requirements for safe and convenient non-motorized transportation, including the development of bicycle and pedestrian-friendly environments near transit.*

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL STANDARD OF LIVING

The Growth Management goals to develop urban forms that enable individuals to spend less income on housing cost, that minimize public and private development costs, and that enable firms to be more competitive, strengthen the regional strategic goal to stimulate the regional economy. The evaluation of the proposed project in relation to the following policies would be intended to guide efforts toward achievement of such goals and does not infer regional interference with local land use powers.

- *Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.*

- *Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities.*

- *Encourage subregions to define an economic strategy to maintain the economic vitality of the subregion, including the development and use of marketing programs, and other economic incentives, which support attainment of subregional goals and policies.*

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL QUALITY OF LIFE

The Growth Management goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life, that accommodate a diversity of life styles, that preserve open space and natural resources, and that are aesthetically pleasing and preserve the character of communities, enhance the regional strategic goal of maintaining the regional quality of life. The evaluation of the project in relation to the following policies would be intended to provide direction for plan implementation, and does not allude to regional mandates.

- *Support provisions and incentives created by local jurisdictions to attract housing growth in job rich subregions and job growth in housing rich subregions.*

- *Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.*

- *Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.*

- *Support and encourage settlement patterns which contain a range of urban densities.*

- *Encourage planned development in locations least likely to cause environmental impact.*

- *Support policies and actions that preserve open space areas identified in local, state and federal plans.*

- *Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.*

- *Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources,measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.*

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended guide direction for the accomplishment of this goal, and does not infer regional mandates and interference with local land use powers.

- *Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.*

- *Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.*

CONCLUSIONS

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed residential development should be implemented and monitored, as required by CEQA.

- ENDNOTE -

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

SCAG is a ***Joint Powers Agency*** established under California Government Code Section 6502 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's ***Metropolitan Planning Organization*** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. §134(g)-(h), 49 U.S.C. §1607(f)-(g) et seq., 23 C.F.R. §450, and 49 C.F.R. §613. SCAG is also the designated ***Regional Transportation Planning Agency***, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the ***South Coast Air Quality Management Plan***, pursuant to California Health and Safety Code Section 40460(b)-(c). SCAG is also designated under 42 U.S.C. §7504(a) as a ***Co-Lead Agency*** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

SCAG is responsible under the Federal Clean Air Act for determining ***Conformity*** of Projects, Plans and Programs to the Air Plan, pursuant to 42 U.S.C. §7506.

Pursuant to California Government Code Section 65089.2, SCAG is responsible for ***reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans*** required by Section 65080 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for ***Inter-Governmental Review*** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21083 and 21087, ***Environmental Impact Reports*** of projects of regional significance for consistency with regional plans [California Environmental Quality Act Guidelines Sections 15206 and 15125(b)].

Pursuant to 33 U.S.C. §1288(a)(2) (Section 208 of the Federal Water Pollution Control Act), SCAG is the authorized ***Areawide Waste Treatment Management Planning Agency***.

SCAG is responsible for preparation of the ***Regional Housing Needs Assessment***, pursuant to California Government Code Section 65584(a).

SCAG is responsible (with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council) for preparing the ***Southern California Hazardous Waste Management Plan*** pursuant to California Health and Safety Code.

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

NO. 566

STATE CLEARINGHOUSE NO. 96121072

SADDLEBACK MEADOWS

RECORDED TRACT MAP 10692

GRADING APPLICATION GA960048

VOL. 1

Orange County
Planning & Development Services Department

June 1997

URBAN VISION

Screencheck DEIR Submittal:	
Draft EIR Circulation:	
Response to Comments Submittal:	
Final EIR Submittal:	
Final EIR Certified:	

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT NO. 566

SADDLEBACK MEADOWS

Recorded Tract Map 10692
Grading Application GA960048

State Clearinghouse No. 96121072

Prepared for:

ORANGE COUNTY PLANNING &
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Prepared by:

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June 1997

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT NO. 566

State Clearinghouse No. 96121072

SADDLEBACK MEADOWS
Recorded Tract Map No. 10692
GA 960048

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June 1997

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1.0 EXECUTIVE SUMMARY

1.1 PROJECT SYNOPSIS

The project proposes the phased development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure, on a 222.23 acre site on the easterly side of El Toro Road. The gross residential density is 3.17 du/ac, with minimum lot sizes of 2,630 square feet. Fourteen (14%) percent of the project site is proposed to remain in undisturbed, natural open space and 57.6% of the site will remain in total open space. In addition to the residential component, the project also proposes eight private park sites, regional riding/hiking trail connections, and construction of a water tank site dedicated to and accepted by, the Trabuco Canyon Water District. Project implementation requires the approval of a grading plan. The grading permit application (GA960048) is based on Tract 10692, which was recorded December 16, 1988.

The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor Specific Plan approximately ½-mile south of the El Toro Road/Live Oak Canyon Road intersection. Implementation of the proposed project would directly effect 191.39 acres of the project site, including remedial grading and fuel modification requirements and 19.77 acres offsite, for a total impact area of 211.16 acres.

A total of 2.6 million cubic yards of conventional grading and 8.9 million cubic yards of remedial grading would be required to implement the project.

The project site is designated as "Bridlewood Residential District" in the Foothill-Trabuco Specific Plan and "1B", Suburban Residential, in the Countywide General Plan Land Use Element. Project site zoning is "S", Specific Plan.

Table 5 summarizes major features for the proposed project and current surrounding residential developments:

1.2 EXECUTIVE SUMMARY

A summary of the environmental impact analysis, mitigation measures, level of significance after mitigation and the mitigation monitoring program is shown on pages 1-3 through 1-64.

1.3 PROJECT ALTERNATIVES

Pursuant to CEQA, the Subsequent EIR must assess a reasonable range of alternatives to the project action or location (Section 15126 {d} of the CEQA Guidelines). The discussion must focus on opportunities for eliminating any significant adverse environmental effects, or reducing them to a level less than significant "...even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly..." (Section 15126 {d}{1} of the CEQA Guidelines).

The EIR must identify an environmentally superior alternative among other alternatives. As with cumulative impacts, the discussion of alternatives is governed by the "rule of reason". The EIR need not consider an alternative whose effect cannot be reasonably ascertained, or does not contribute to an informed decision making and public participation process.

The following alternatives to the proposed project are evaluated in this Subsequent Environmental Impact Report.

- **Alternative No. 1 - No Project/No Development.** Alternative No. 1 examines the impacts/benefits of not proceeding with the proposed project. This alternatives is required under Section 15126{d}{2} of the CEQA Guidelines, and warrants further analysis.

- **Alternative No. 2 - Foothill-Trabuco Specific Plan - Staff Alternative A.** Alternative No. 3 was included in the Foothill-Trabuco Specific Plan as Staff Alternative "A", and proposes 150 minimum 20,000 sf lots. Under this alternative, 138 acres of the site would be disturbed by grading requirements.

- **Alternative No. 3 - Foothill-Trabuco Specific Plan - Staff Alternative B.** Alternative No. 4 was also included in the Foothill-Trabuco Specific Plan, as Staff Alternative "B", and proposes limiting development to 100 single family detached dwelling units on a 31.7 acre portion of the site.

- **Alternative No. 4 - 299 Unit Single Family Housing Alternative.** This alternative is the proposed project recommended by the OCP&DS staff during public hearings for EIR 561.

- **Alternative No. 5 - Cluster/Single Family/Multifamily Residential:** Alternative No. 5 evaluates a 318 detached and attached unit project, within a reduced development impact area (110.5 ac). Benefits of this alternative would include a substantial increase in undisturbed open space, including a wider wildlife corridor.

Table 1
PROJECT ALTERNATIVES AND GRADING SUMMARY

Alt. No.	Alternative Description	Onsite Acres of Disturbance	Offsite Acres of Disturbance	Total Acres of Disturbance
1	No Project/No Development	0.0 ac	0 0 ac	0.0 ac
2	150 SFD - 20,000 sf Lots	158.0 ac	6.6 ac	144.6 ac
3	100 SFD - 30 Acres	31 7 ac	2.5 ac	34.2 ac
4	299 Unit Single Family Housing	156.6 ac	7.86 ac	164.46 ac
5	Cluster/Single Family/Multifamily (318 DU)	110.5 ac	2.5 ac	113.0 ac

Table 2
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

4.1 LAND USE	
Standard Conditions of Approval	
SC 1-1	Prior to the issuance of any building permits for residential construction, the developer shall comply with Board of Supervisors Resolution 82-1368 (Buyer Notification Program) which requires the developer to prepare a map denoting the existing and proposed land uses, arterial highways, and public facilities within the surrounding area for the approval of the Manager, Current Planning Services . The map content, display, and distribution shall be in accordance with the Buyer Notification Program guidelines approved by the Board of Supervisors and available at the Development Processing Center.
SC 1-2	Prior to the issuance of any certificates of use and occupancy, the developer shall provide evidence to the Manager, PDS/Building Inspection Services Division, that the Department of Real Estate has been notified that the project area is within the boundaries of a Community Facilities District (CFD), and will be subject to special taxes for public facilities and/or services.

4.1 LAND USE		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Land Use Compatibility Implementation of the proposed project may result in potential land use compatibility impacts to O'Neill Regional Park, the Ramakrishna Monastery and St. Michael's Abbey, prior to mitigation.	No additional mitigation measures are proposed.	**Land Use:** Implementation of the proposed project would result in unavoidable adverse impacts to land use and wildlife habitat

4.2 SOILS AND GEOLOGY	
Project Design Features	
PDF 2-1	A comprehensive remedial grading mitigation plan has been designed to stabilize the project site, in accordance with OCPDS requirements. The plan is depicted in Exhibit 22, included in Appendix D and proposes measures including shear keys, buttresses, removals/recompaction to reduce hazards associated with landslides, erosion and subsidence.
Standard Conditions of Approval	
SC 2-2	Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, PDS/Subdivision and Grading Services Division, for approval The report shall include the information and be in a form as required by the Grading Manual.
SC 2-3	Prior to the issuance of any grading permits, the Manager, PDS/Subdivision and Grading Services Division, shall determine if the proposed grading complies with the grading illustrated in the plans approved by the decision-maker with regard to grading concepts, slope heights, slope ratios, and pad elevations and configuration. Significant deviations shall be reviewed by the decision-maker for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised application per Orange County Zoning Code Section 7-9-139 and 7-9-150.
SC 2-4	Prior to the issuance of the first grading permit, for projects located immediately adjacent to or including portions of regional parks, significant open space corridors, or other environmentally sensitive areas, the project proponent shall provide evidence acceptable to the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division, that graded areas will be compatible with natural land characteristics of the adjacent open space areas including techniques to enhance a smooth and gradual transition, urban edge treatment plans and incorporating view enhancement through architectural and design techniques.
SC 2-5	Prior to the issuance of any grading permit, offsite grading and/or drainage shall be conducted in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.
SC 2-6	Prior to the issuance of a grading permit, substantial compliance with the following shall be certified by a registered engineer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division: • Fill soils shall be placed in layers that are less than 8 inches thick and moisture-conditioned generally 1- to 2-percent above optimum moisture content. The existing diatomaceous soils should be moisture-conditioned to 125-percent of optimum moisture content

4.2 SOILS AND GEOLOGY

Standard Conditions of Approval

- For preliminary earthwork computations, the following shrinkage/bulking factors are recommended for the onsite material (these do not include handling losses): Bedrock - 5% bulking, slopewash - 5% shrinkage; and Other Soils - 15% shrinkage. Grading plans shall include an area where finish grades can be raised or lowered to accommodate changes in actual material quantities.

- Dewatering shall be achieved using sumps and pumps located strategically within the excavated area. However, the excavation shall be carefully observed; if the conditions warrant, supplementary dewatering provisions shall be made. It is the responsibility of the contractor to provide an adequate dewatering system during construction.

Seismic

SC 2-7 Conformance with the Uniform Building Code and Orange County codes will insure that seismic considerations are incorporated into the structural designs. All recommendations of the geotechnical report shall be incorporated and utilized in the final construction plans for the parcels in a manner meeting the approval of the Manager, PDS/Building Permit Services Division Larger buildings, structures with extraordinary architectural configurations, or those of tilt-up construction may require seismic analysis.

SC 2-8 The seismic exposure of the site shall be considered in the design of the proposed structures in a manner meeting the approval of the Manager, PDS/Building Permit Services Division.

SC 2-9 Geologic inspections shall be required during site grading for each parcel to confirm the absence of major faults in the local area in a manner meeting the approval of the Manager, Subdivision Grading

SC 2-10 Prior to the issuance of any grading permits, if review of the grading plan for this property by the Manager, PDS/Subdivision and Grading Services Division, indicates significant deviation from the proposed grading illustrated on the approved tentative tract map, specifically with regard to slope heights, slope ratios, and pad elevations and configuration, the plan shall be reviewed by the Subdivision Committee for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised tentative tract map; or, if a final tract/parcel map has been recorded, a new tentative tract/parcel map or a site development permit application per Orange County Zoning Code Section 7-9-139 and 7-9-150. Additionally, a new environmental assessment and determination is required

4.2 SOILS AND GEOLOGY
Standard Conditions of Approval
SC 2-11 Prior to the issuance of any grading permit, and if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the affected property owners for offsite grading and/or drainage. The owner/applicant shall record said letters of consent for offsite drainage and/or cross-lot drainage prior to recordation of the tract/parcel map or prior to the issuance of any grading permit, whichever comes first
SC 2-12 Prior to the issuance of any preliminary grading permits, the subdivider shall request that the Vector Control District initiate the survey process of the tract/parcel map site to determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.
SC 2-13 Prior to the issuance of any grading permits, a Water Quality Management Plan (WQMP) shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division. The WQMP shall identify, at a minimum, the application and incorporation of those routine structural and non-structural BMPs outlined in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix G detailing implementation of BMPs not dependent on specific land uses, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.
SC 2-14 Prior to the issuance of any grading or building permits, the applicant shall provide, in accordance with criteria supply by EMA, a "Hazardous Materials Assessment" and a "Disclosure Statement" covering the property (both fee and easement) which will be offered for dedication to the County of Orange, for review and approval by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Monitoring Programs Division.

4.2 SOILS AND GEOLOGY		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Slope Stability/Grading Implementation of the proposed project, prior to the application of mitigation measures would result in significant impacts related to slope stability, landslides, mud slides, subsidence and erosion.	The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. **Grading** AM 2-15 Multiple cuts and fills (2.6 million cubic yards) to achieve planned elevations and profiles, and associated access roadways shall be required. AM 2-16 Remedial grading (8.9 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills shall be required. Back cut failure guidelines shall be provided to the Grading Services Division prior to issuance of grading permits. AM 2-17 Removal (clean out) of all or major portions of the graben materials and softer alluvium and colluvium under most of the variable thickness fills shall be required. AM 2-18 Installation of appropriate subdrain systems within natural drainage courses and within stability fills prior to fill placement shall be required. AM 2-19 Adequate foundation and slab subgrade conditioning for the proposed development, including over excavation, capping and measures related to expansive soils shall be required. AM 2-20 Achieving suitable surface gradients to preclude ponding anywhere onsite and to control water run-off via paved/closed drainage devices shall be required.	

4.2 SOILS AND GEOLOGY			
Potential Significant Effects of the Proposed Project			
Potential Project Impacts	**Additional Mitigation Measures**		**Unavoidable Adverse Impacts**
Impact: Slope Stability/Grading Implementation of the proposed project, prior to the application of mitigation measures would result in significant impacts related to slope stability, landslides, mud slides, subsidence and erosion	**Compaction**		None.
	AM 2-21	Wherever structural fills are to be placed, the upper 6 to 8 inches of the exposed subgrade (after stripping and/or over excavation/clean-out) shall first be scarified and reworked In general, the dry density of the in-situ (native) material shall be at least 85 percent of maximum In the event that lower densities are determined by field testing to exist, the depth of over excavation will be determined onsite, given due consideration to the geology of the exposed material, as well as its relative location It is at present expected that typical depths of over excavation will be on the order of 4 to 5 feet.	
	AM 2-22	Fill shall be placed in lifts of 6 to 8 inches (loose) in thickness Rocks exceeding 4 inches in maximum dimension are best not incorporated within the upper fill zone (say 3 feet) where foundations and most utility systems are expected to be housed	
	AM 2-23	In all fill areas where active gradients are steeper than 5:1 (horizontal·vertical), those surfaces shall be prepared to receive fill by excavating standard keyways and benches in a stair-step configuration.	
	AM 2-24	Any loosening of reworked or in-place (native material, consequent to weathering and/or passage of construction traffic, shall be made competent	
	AM 2-25	Temporary fills, typically associated with access ramps built to accommodate grading equipment shall be subject to removal when their use is discontinued.	
	AM 2-26	The depths of excavation shall be subject to onsite monitoring by the Soil Engineer, normally during the actual removal operations. Any surface or subsurface obstructions, or questionable material encountered during grading, shall be brought immediately to the attention of the Soil Engineer, for his determination as to proper exposure, removal and/or processing as directed.	

4.2 SOILS AND GEOLOGY		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Mitigation Measures**	**Unavoidable Adverse Impacts**
	Material Selection	
	AM 2-27 After the site has been stripped of any debris, vegetation and organic soils, such exposed onsite shall be considered satisfactory for reuse in the construction of onsite fills, provided the organic content does not exceed 3% by volume. It is recommended that highly expansive soils not be placed within the upper 4 to 5 feet thick zone underlying final pad and street grades. More importantly, no such soil is to be placed (as backfill)within a horizontal distance equal to the wall height immediately behind retaining walls.	
	AM 2-28 Any objectionable material, as determined by the Soil Engineer, shall be subject to relocation in deeper fill areas or removal offsite.	
	AM 2-29 All borrow sites shall be approved by the Soil Engineer/Geologist prior to onsite delivery. This will permit the timely allocation of such available materials for use on the project site.	
	Compaction Requirements	
	AM 2-30 Reworking/compaction shall include water addition or drying-out as needed, to bring the soils close to their optimum moisture content. All such reworked soils, placed as structural fills, shall be densified to achieve at least 90 percent relative compaction with reference to the laboratory compaction standard. The optimum moisture content and maximum dry density, for each identified soil type, will be determined in the laboratory in accordance with ASTM Test Designation D1557.	
	Shrinkage/Subsidence	
	AM 2-31 For preliminary earthwork computations, an approximate (overall) shrinkage factor of 12 percent shall be required, for the existing site soils. The above value does not include allowance for stripping nor handling losses.	

4.2 SOILS AND GEOLOGY		
Potential Project Impacts	**Mitigation Measures**	**Unavoidable Adverse Impacts**
	AM 2-32 Subsidence shall be assumed as 3/4 to 1-1/2 inches for grading design purposes. **Excavating Conditions** AM 2-33 Excavation of onsite soils shall be accomplished with standard heavy duty earthmoving or trenching equipment. Some hard cemented sandstone beds were encountered during the field exploration on portions of the site and some minor, isolated blasting may be required to remove these hard materials. AM 2-34 Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water (seepage) is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher site elevations as well as in cuts made late in the year All nuisance water shall be accommodated in accordance with County requirements. **Expansion Potential** AM 2-35 Onsite materials are considered to be moderately expansive, generally. Soils of high and low expansivity are expected to comprise less than 25% of the overall pad areas. The expansivity of the actual soils placed within structural areas shall be verified during grading, prior to construction. **Utility Trenching** AM 2-36 The typical walls of temporary construction trenches shall stand nearly vertical, with only minor sloughing, provided the total depth does not exceed 4 to 5 feet Shoring of excavation walls and/of flattening of side slopes may be required, if greater depths are necessary.	

4.2 SOILS AND GEOLOGY			
Potential Project Impacts	**Mitigation Measures**		**Unavoidable Adverse Impacts**
	AM 2-37	Trenches shall be located so as not to impair the bearing capacity nor settlement under planned foundations. As a guide, trenches shall be aligned perpendicular to foundations, and the Structural Engineer so informed to modify the foundation at the crossing, as needed All other trenches shall observe a lateral off-set equal to their total depth.	
	AM 2-38	Existing soils shall be utilized for trench backfill, provided they are essentially free of organic materials and oversized materials (rock, gravel, etc. in excess of 1-inch maximum size, unless within an approved soil matrix) Alternately, select granular materials (sand equivalent of 30 or greater) may be imported as backfill. Compaction should be accomplished entirely by mechanical means, subject to onsite assessment during pipeline installation.	
	Surface Drainage		
	AM 2-39	Positive surface gradients shall be provided away from slope tops per approved grading plans and adjacent to the future buildings, so as to direct surface water run-off away from structural areas and toward suitable discharge facilities.	
	Sulphate Content		
	AM 2-40	The soils sulphate content shall be ascertained during the concluding stages of rough grading, and the type of cement to be used determined at that time.	
	Grading Control		
	AM 2-41	All grading and earthwork shall be subject to on-going testing and observation by the applicants geotechnical consultant, including engineers, engineering geologists and/or technicians.	

4.2 SOILS AND GEOLOGY			
Potential Project Impacts	**Mitigation Measures**		**Unavoidable Adverse Impacts**
	Slabs-on-Grade		
	AM 2-42	Concrete slabs shall be founded on approved (reworked) in-place soils and/or on properly compacted fill The subgrade shall be proof-rolled just prior to construction to provide a firm, unyielding surface, especially if the surface has been disturbed by the passage of time and/or exposure to construction traffic.	
	AM 2-43	Floor slabs shall be at least 4 inches thick. The Finished Floor Level should be at least 6 inches above highest adjacent exterior grade. Joints shall be provided	
	AM 2-44	If flooring that would be affected by moisture is to be used, the slab shall be underlain by 2 inches of sand, with a 10-mil plastic sheet between the sand and the subgrade.	
	AM 2-45	Precautions in respect of expansive soils shall be taken.	
	Foundations		
	AM 2-46	The proposed structures shall be supported on conventional spread footings, supported into approved compacted fill and/or reworked native material.	
	Long Term Settlements		
	AM 2-47	The grading concept, as presently proposed, includes several areas where deep fill will result, exceeding 50 feet in depth. These soil masses may experience significant settlements, with time, of 4 to 6 inches or more Such downward movements can be tolerated by most improvements, provided these occur at a reasonably uniform rate and rather evenly over a well distributed area. However, the degrees and rates of settlement shall be analyzed during the final design phase.	

4.2 SOILS AND GEOLOGY		
Potential Project Impacts	**Mitigation Measures**	**Unavoidable Adverse Impacts**
	Phasing of Earthwork AM 2-48 Unstable Ground Initial stability evaluations have determined that several natural slopes subject to grading are inherently unstable. Removals, therefore, shall be planned and carried out with care in order to minimize deep-seated, in-construction failures. Statistically, about 10 percent of back cuts for buttresses will fail during grading. Allowances for schedule and budget contingencies should be made. AM 2-49 Required Clean-Out Work Prior to improving the gross stability of hillsides, clean-out work will be necessary along their lowest (toe) elevations. Whereas such selective removals are essential prior to placement of additional fill, this process can trigger undesired slippage Therefore, selective unloading of the slide mass shall be required before stabilization can effectively begin AM 2-50 Slide Unloading Where existing slope faces are marginally safe in their present condition, the higher portions of each such slide shall require removals toward the top, prior to clean-out, and subsequent loading at the toe.	

4.3 WATER/HYDROLOGY	
Project Design Features	
PDF 3-1	A master drainage concept has been incorporated into the project design to mitigate hydrology impacts to existing OCP&DS requirements and standards. The master drainage concept, shown in Exhibit 22 and contained in its entirety in Appendix L of this EIR, proposes a series of storm drains, catch basins, inlet/outlet structures, energy dissipators and slope drains to control project drainage.

4.3 WATER/HYDROLOGY

Standard Conditions of Approval

SC 3-2 Prior to the issuance of any grading permits, the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a. A drainage study determining the effect the proposed development and associated drainage patterns will have on existing drainage facilities.

b. Mitigate either by on-site retardation or by providing improvements appropriately to impacted existing drainage facilities

SC 3-3 Prior to the issuance of any grading permits, the applicant shall in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a Design and convey construction funds for surface drainage improvements; and

b Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff, and

c Dedicate the associated easements to the County of Orange, if determined necessary.

SC 3-4 Prior to the issuance of any certificates of use and occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, PF&R/Construction Division.

SC 3-5 Prior to the issuance of any grading permit, and if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations

SC 3-6 Prior to issuance of any building permits, the applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division, including payment of fees and the construction of the necessary facilities.

SC 3-7 Potential for the proposed project to impact the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

4.3 WATER/HYDROLOGY

Standard Conditions of Approval

Water Quality

SC 3-8 Prior to issuance of building permits, or grading permits, whichever come first, permit applicant shall submit for approval of the Manager, PDS/Subdivision and Grading Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. This WQMP shall identify at a minimum the routine structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of the BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, lessee, etc.); and, shall reference the location(s) of structural BMPs.

SC 3-9 Prior to the issuance of precise grading permits or building permits, whichever comes first, the applicant shall submit and obtain approval from the Manager, PDS/Subdivision and Grading Services Division, of a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine, structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association shall reference the location(s) of structural BMPs.

Flood Plain Elevation

SC 3-10 Prior to issuance of any grading permits, the applicant shall submit evidence to the Manager, PDS/Subdivision and Grading Services Division, that the applicant has obtained coverage under the NPDES statewide General Stormwater Permit from the State Water Resources Control Board.

Easements

SC 3-11 Prior to the issuance of any certificates of use and occupancy, the applicant shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange or the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting any of said easements, the subdivider shall furnish a copy of the proposed easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval Further, a copy of the approved easement shall be furnished to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificate of use and occupancy.

4.3 WATER/HYDROLOGY		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Increased Runoff Implementation of the proposed project will result in the introduction of impervious surfaces (streets, driveways, residential units) and will result in a decrease in the area available for stormwater percolation and a subsequent increase in storm flow runoff. **Impact: Increased Downstream Erosion** Discharge of increased and concentrated runoff volumes into onsite natural drainage courses would result in increased erosion and associated sedimentation, primarily due to the unsuitable condition of drainage course banks. **Impact: Increased Urban Runoff Pollution** Urban runoff (oil, cleaning products, pesticides, etc) associated with proposed onsite streets, driveways, and manufactured slopes would discharge into onsite drainage courses ultimately ending up in the Pacific Ocean **Impact: Alteration of Natural Site Drainage** Implementation of the proposed project will result in substantial landform modification, redirecting site drainage throughout the site.		None

4.4 TRANSPORTATION/CIRCULATION

Project Design Features

PDF 4-1 The onsite circulation system is proposed as to accommodate project related traffic generation, including design of the entry street as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The entry's cross-section shall be maintained for approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway. Secondary emergency only access will be provided via a gated connection to existing Valley Vista Way. Minimum fire access roadway width of 28 feet shall be required

PDF 4-2 The entry street will be designed with a traffic signal and a southbound left-turn pocket and northbound right-turn lane The applicant shall provide a cash deposit for the design and construction of the traffic signal.

PDF 4-3 All weather access to the proposed water tank shall be provided by the applicant. This access shall be designed with a minimum 28 foot width and a maximum grade of 10%.

SC 4-4 Prior to the issuance of any building permits, the applicant shall participate in design, construction, and/or financing of the cost of a traffic signal in the project vicinity in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-5 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Program listed below, in a manner meeting the approval of the Manager, PF&RD/Program Division.

a. Foothill Circulation Phasing Program

b. Prior to recordation of a final tract map, the subdivider shall enter into an agreement with the County of Orange for participation in a fee program (if adopted by the Board of Supervisors) for implementation of the Foothill/Eastern Transportation Corridor. Said agreement shall provide that:

1. The fee shall be $158.00 per trip end times the County standard trip end generation rate for the type of development proposed, times the number of units (footage) proposed, or the fee payable under the program, whichever is less.
2. Subdivider's obligation to pay fees would arise only after the County establishes the fee program, prior to issuance of building permits.
3. Subdivider's obligation to pay the fee would be extinguished if the fee program were not established within three (3) years of the date of issuance of the first building permit for subject development.
4. Subdivider shall furnish surety bond, letter of credit, money or such other security approved by the Director, PF&RD, to assure payment of the fees related to subject development.
5. This condition shall be void if a trial court of competent jurisdiction, in a final judgement, or an appellate court, if the matter is appealed, sets aside a condition imposed by the County which was substantially the same as said condition

c El Toro Road

d. Santiago Canyon Road

SC 4-6 Building permit issuance shall be phased in accordance with the Foothill Circulation Phasing Plan (FCPP) Development Phasing Plan, and shall also be subject to any other Board of Supervisors approved growth management phasing plan pertaining to the timely provision of public services and facilities.

4.4 TRANSPORTATION/CIRCULATION

Standard Conditions of Approval

SC 4-7 Building permit issuance shall be phased in accordance with any Board of Supervisors approved Growth Management Phasing Plan pertaining to the timely provision of public services and facilities

SC 4-8 Prior to the issuance of any grading permits, adequate sight distance shall be provided at all street intersections per Standard Plan 1117, in a manner meeting the approval of the Manager, PF&R/Program Division. This includes any necessary revisions to the plan such as removing slopes or other encroachments from the limited use area.

SC 4-9 Prior to the issuance of any certificates of use and occupancy, the developer shall construct the approved internal circulation improvements in a manner meeting the approval of the Manager, PF&R/Construction Division. Further, a copy of the approved plans shall be furnished to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use and occupancy

SC 4-10 When monuments exist which control the location of subdivisions, streets or highways, or provide survey control, the monuments shall be located and referenced prior to any street construction or relocation, and shall be reset after construction as required by Section 8771 of the Business and Professions Code, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-11 Prior to issuance of a building permit, the applicant shall pay a cash fare share contribution for the design and construction of improving Santiago Canyon Road from Live Oak Canyon Road to Jamboree Road, in a manner meeting the approval of the Manger, PF&R/Programs Division. In addition, the applicant shall participate in the Santiago Canyon Road Safety Improvement Program.

SC 4-12 Prior to issuance of a building permit, the applicant shall design and construct roadway improvements to El Toro Road including a deceleration lane and a left turn pocket into the project entrance based on a 60 mph minimum design speed in a manner meeting the approval of the Manager, PF&RD/Program Division.

SC 4-13 Prior to issuance of a building permit, the applicant shall provide a cash deposit for the difference in cost of designing and constructing the roadway improvements proposed with the project as compared to the costs associated with the ultimate configuration of El Toro Road, as determined by PDS/Environmental & Project Planning Services Division, all in a manner meeting the approval of the Manager, PF&R/Programs Division.

4.4 TRANSPORTATION/CIRCULATION		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Circulation Implementation of the proposed project would require a traffic signal at the intersection of El Toro Road and the primary project access road Project generated traffic will add to cumulative regional traffic impacts	The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, Transportation Planning. AM 4-14 The El Toro Road turn lane improvements needed at the Project Entrance to serve Year 2020 conditions shall be completed in conjunction with development. AM 4-15 Traffic signing/striping should be implemented in conjunction with detailed construction plans for the project Verification of adequate parking should be analyzed for the project site in conjunction with approval of the site plan. AM 4-16 The project shall participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program (FCPP), El Toro Road Fee Program and the Santiago Road Fee Program. Both existing traffic patterns and SCTM traffic projections for Years 2000 and 2020 indicate the attraction of Glenn Ranch Road, Portola Parkway, and the Foothill Transportation Corridor (SR-241) for increased traffic volumes in the project study area. North of the Foothill Transportation Corridor, El Toro Road can accommodate projected traffic volumes with the proposed project on four travel lanes divided by a raised or striped median. Implementation of a full Major Arterial cross-section is not needed to serve future traffic volumes. This alternative section represents a modification of the typical cross-section for a Primary Arterial. Appropriate transitions would be required between this cross-section and other modified cross-sections along El Toro Road south of Glenn Ranch Road.	None.

4.5 AIR QUALITY	
Project Design Features	
No air quality PDF's have been proposed	
Standard Conditions of Approval	
SC 5-1	Grading and excavation shall be halted during periods of high winds meeting the approval of the Manager, EA, Subdivision and Grading Services Division. According to AQP Measure F-4, high winds are defined as 25 mph or greater. This level occurs only under unusually extreme conditions, such as Santa Ana wind conditions. Notations in the above format, included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition
SC 5-2	Prior to issuance of grading permits, the project applicant shall demonstrate measures to ensure compliance with SCAQMD Rule 403, and shall identify the dust suppression measures, such as regular watering, which shall be implemented to reduce emissions during construction and grading in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. This will help reduce the short-term impacts from particles which could result in nuisances that are prohibited by Rule 403

4.5 AIR QUALITY		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Construction Related Air Emissions Potentially significant impacts were identified from dust generated by surface disturbance and from construction equipment operations **Impact: Cumulative Vehicle Air Emissions** Vehicular emissions from project related traffic should be identified as having a cumulatively significant air quality impact.	The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations: AM 5-3 As previously noted, no credit was taken for mobile source emissions reductions either from technology improvements (reformulated gasoline, alternative fuels and/or electric cars), nor from transportation behavior modification in response to programs such as South Coast AQMD Reg. XV or by the trip reduction programs. These programs will mitigate the identified significant growth-related cumulative air quality impact to some extent. Because the projected effectiveness of such programs and because the time frame for technology development is uncertain, the degree of possible mitigation can not be quantified with certainty. Similarly, the buildout date for Saddleback Meadows will depend on economic forces that can not be predicted The following discussion structures the recommended mitigation as comprehensively as possible, but quantification of mitigation effectiveness is speculative at currently known levels of detail. AM 5-4 Contractors will comply with SCAQMD Rule 403. AM 5-5 Contractors will utilize measures to prevent dirt from being tracked, washed, blown or otherwise conveyed onto paved roadways, and will wash or sweep the construction access points at El Toro Road on a routine basis on a frequency specified by the County of Orange as well as whenever dirt is visible more than 50 feet from the access point independent of the routine clean-up schedule. AM 5-6 Trucks hauling dirt on public roads to and from the site will be covered or will maintain a six inch differential between the maximum height of any hauled material and the top of the haul trailer. Haul truck drivers will water the load prior to leaving the site to prevent soil loss during transport.	**Construction Related Air Emissions:** None. **Cumulative Vehicle Air Emissions:** Unavoidable adverse until compliance with basin wide AQMP.

4.5 AIR QUALITY		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
	AM 5-7 Construction management procedures required by the County of Orange and other jurisdictions shall be implemented. Contractor personnel responsible for supervision and the appropriate actions to be taken for the following measures shall be identified: • Cessation of activities during a Stage-2 smog episode. Call 1-800-242-4022 for the daily forecast • Truck routes and schedules for receipt of materials shall be coordinated with County of Orange staff. • Where feasible, on-road vehicles and off-road equipment shall be turned off and subsequently restarted if the anticipated duration of idling is expected to exceed five (5) minutes. AM 5-8 Graded surfaces used for off-road parking, materials lay-down or awaiting future construction shall be stabilized for dust control as needed. Frequently accessed unpaved areas shall be paved as early as possible to minimize dirt trackout to public rights of way. AM 5-9 Equipment will be maintained in proper tune to prevent visible soot from reducing light transmission through the exhaust stack exit by more than 20 percent for more than three (3) minutes per hour and use low-sulfur fuel as required by SCAQMD regulation. Flag persons and appropriate traffic control devices will be used as needed to minimize construction activity interference with off-site traffic. AM 5-11 Implementation of the above measures is expected to maintain construction activity air quality impacts at less than significant levels.	

4.5 AIR QUALITY		
Potential Significant Effects of the Proposed Project		
	Operational Activities. • Traffic flow at the project access will be maintained at acceptable levels of service through mitigation measures identified in the project traffic study • 220v electric power for future use to charge electric-powered vehicles will be made available in homeowner garages. AM 5-12 Emissions calculations and the corresponding ambient air quality impact assessment for project-related construction and Saddleback Meadows operations presumed compliance with SCAQMD rules regarding dust control. The potential for additional emissions reduction beyond the mandatory requirements of existing rules and regulations was evaluated based on Appendix 11 of the SCAQMD Air Quality Handbook which quantifies reduction potential of a variety of project construction and operation emissions control measures. Dust emissions can be controlled from their 50 percent control assumed for Rule 403 compliance by an additional 50-80 percent of the uncontrolled fraction. The net effective dust control level is therefore 75-90 percent. Unless the entire project site is under simultaneous massive grading, attaining the optimum level of dust control will maintain dust impacts at less than significant levels. Operational emissions reduction from mobile sources of 5 percent of their non-TCM implementation level can not reduce the substantial emission level to less than the SCAQMD advisory level significance thresholds. A number of secondary considerations were identified, however, that would either allow for a finding of an individually less than significant air quality impact.	

4.6 NOISE
Project Design Features
No PDF mitigation measures are proposed.
Standard Conditions of Approval

SC 6-1 All residential lots and dwellings shall be sound attenuated against present and projected noise which shall be the sum of all noise impacting the project so as not to exceed a composite interior standard of 45 dBA CNEL all habitable rooms and a source specific exterior standard of 65 DBA CNEL in outdoor living areas. Evidence prepared by a County-certified acoustical consultant, that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137 5, shall be submitted as follows:

a. Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permits Services Division, the applicant shall submit an acoustical analysis report to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy "B" below.

b Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, PDS/Building Permits Services Division, for approval along with satisfactory evidenced which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

c. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-2 Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permits Services Division, an acoustical analysis report shall be submitted to the Manager, PDS/Building Permits Services Division, for approval The report shall describe in detail the exterior noise environment and preliminary mitigation measures Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy SC 6-3 below.

SC 6-3 Prior to the issuance of any building permits for residential construction, an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards shall be submitted for review and approval to the Manager, PDS/Building Permits Services Division, along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

4.6 NOISE

SC 6-4 Prior to the issuance of any building permits, all freestanding acoustical barriers must be shown on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-5 Prior to the issuance of any certificates of use and occupancy, the developer shall produce evidence acceptable to the Manager, PDS/Building Inspection Services Division, that information stating this property is subject to the overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station) has been provided to the Department of Real Estate of the State of California for inclusion into the Final Subdivision Public Report.

SC 6-6 Prior to the issuance of any certificates of use and occupancy, the applicant shall post aircraft noise impact notification signs in all sales offices associated with new residential development located within an aircraft 63 dB CNEL contour. The number and location of said signs shall be as approved by the Manager, PDS/Building Permits Services Division

SC 6-7 Prior to the issuance of any building permit, an aviation easement over this property shall be offered for dedication to the County of Orange in a manner meeting the approval of the Manager, PDS/Building Permits Services Division

SC 6-8 Prior to the sale, lease or rental of any structure or portion thereof, the applicant/owner shall provide to each prospective purchaser, lessee, or tenant a notice and statement of acknowledgment that the property is subject to overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station). The form and method of distribution of said notice and statement of acknowledgment shall be as approved by the Manager, PDS/Building Permits Services Division.

A. Prior to the issuance of any grading permits, the proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division, that:

(1) all construction vehicles or equipment, fixed or mobile, operated within 1000 feet of a dwelling shall be equipped with properly operating and maintained mufflers.

(2) All operations shall comply with Orange County "Codified Ordinance Division 6 (Noise Control); and

(3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this requirement

SC 6-9 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that excavation, grading and other construction-related activities shall be restricted to daytime hours as promulgated in the County's Codifide of Ordinance Division 6 (Noise Control)

4.6 NOISE
Standard Conditions of Approval
SC 6-10 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that all construction equipment, stationary or mobile, shall be equipped with properly operating and maintained mufflers.
SC 6-11 Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division, that: a) All construction vehicles or equipment, fixed or mobile, operated within 1,000-feet of a dwelling shall be equipped with properly operating and maintained mufflers. b) All operations shall comply with Orange county Codified Ordinance Division 6 (Noise Control) c) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings. Notations in the above format, appropriately identified and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

4.6 NOISE		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: On and Offsite Noise Impacts Implementation of the proposed project would result in short-term construction related impacts to adjacent land uses including: 1) St. Michael's Abbey; 2) Ramakrishna Monastery; 3) Hidden Ridge planned community. No significant long-term on or offsite noise impacts are anticipated with this project.	The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations, in manner meeting approval of the Manger, Building Permits. AM 6-12 Prior to the issuance of Building Permits, all operative windows exceeding 6 sq.ft. of glazing shall be rated SR=25 or greater.	None.

4.7 BIOLOGICAL RESOURCES
Project Design Features No Project Design Features are proposed
Standard Conditions of Approval
SC 7-1 Pursuant to Section 711.4 of the Fish and Game Code, the applicant shall comply with the requirements of AB 3158, prior to the filing of the Notice of Determination for the project, in a manner meeting the approval of the Manager, PDS/Environmental and Project Planning Services.
SC 7-2 Prior to the issuance of any grading permits, the applicant shall obtain a Streambed Alteration Agreement covering the affected water courses and wetland areas within the proposed project area from the California Department of Fish and Game. A 1603 Streambed Application has been submitted to CDFG. All streambed alteration activities shall be carried out in accord with the requirements of an approved Streambed Alteration Agreement.
SC 7-3 Prior to the issuance of any grading permits, the applicant shall obtain the necessary individual or nationwide permit (pursuant to Section 404 of the Federal Clean Water Act) covering all affected wetland areas from the U.S. Army Corps of Engineers, Los Angeles District. All wetland areas shall be subject to the specifications of the 404 permit as determined by the Corps of Engineers. A copy of the 404 permit shall be submitted with the first grading permit application for the proposed project to the Manager, PDS/Subdivision and Grading Services Division
SC 7-4 Prior to the issuance of any grading permits, as required by participation in the Natural Community Conservation Planning/Coastal Sage Scrub (NCCP) agreement signed by the County on May 1, 1992, the project applicant shall provide an accounting summary, in acres or portions thereof, of coastal sage scrub scheduled to be impacted by removal through grading in a manner meeting the approval of the Administrator Planning & Zoning. (See Section 4.7.3.)
SC 7-5 Prior to the issuance of a grading permit, the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the U.S. Fish and Wildlife Service, in a manner meeting the approval of the Administrator, Planning & Zoning and Manager, PDS/Grading Services Division, in consultation with the Administrator, Planning & Zoning.
SC 7-6 Notwithstanding the tentative map, no grading shall occur within the Natural Community Conservation Plan (NCCP) enrolled area except as in a manner meeting the approval of the Administrator, Planning and Zoning.
SC 7-7 Prior to the issuance of any grading permit, approval of any activity that involves removal of any native vegetation from subject site including clearing, grubbing, mowing, discing, trenching, grading, fuel modification, or other related construction-related activities, the applicant shall obtain written proof from the U.S Fish and Wildlife Service that said activity complies with the Federal Endangered Species Act. This evidence shall be submitted to the Manager, PDS/Subdivision and Grading Services Division, for review and approval, in consultation with the Administrator, Planning and Zoning

4.7 BIOLOGICAL RESOURCES

Standard Conditions of Approval

SC 7-8 Prior to the issuance of grading permits the applicant shall submit a landscape and tree preservation plan to the Manager, PF&R/Harbors Beaches and Parks Division, for review and approval in accordance with the following guidelines:

A To the maximum extent feasible, all existing native and exotic trees and other significant vegetation shall be preserved in conjunction with any development activity

B A tree preservation plan shall be prepared by a landscape architect for all development projects which identifies the location, size and species of all trees having a trunk diameter of 5 inches or greater (measured at four and one-half feet above ground level) and shrubs having a trunk or branch diameter of 3 inches or greater. The plan shall show which plants are proposed for removal and where transplanted and/or replacement plants will be located. Tree preservation plans shall be approved prior to issuance of grading permits, or where grading permits are not required, prior to issuance of building permits.

C. Trees removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement by a combination of 1 and 15-gallon plants at a minimum ratio of 5:1. The following sliding scale shall also be used for trees to determine if more than the minimum number of replacement trees are required.

Tree Replacement Scale

Trunk Diameter (inches) of Tree Removed At 4½ Feet Above Ground Level	Total Number of Replacement
5 to 11	5 (1-15 gal / 4-1 gal)
12 to 17	7 (1-15 gal / 6-1 gal)
18 to 23	10 (2-15 gal / 8-1 gal)
24 to 35	12 (2-15 gal / 10-1 gal)

Any oak exceeding 35 inches in diameter should be preserved, transplanted or replaced in accordance with the provisions outlined in Section E of the mitigation measure. In the event that all required replacement trees will not fit on the property, increase in container size will be considered in conjunction with reductions in replacement quality.

D. Significant shrubs removed in accordance with an approved tree preservation plan should be replaced by a combination of transplanting to another location on the subject property and/or replacement by 5-gallon plants at a minimum ration of 3:1.

E. All other plants not specified in Guidelines C and D above that are removed in accordance with an approved tree preservation plan should be either transplanted to another location on the subject property or replaced by 15-gallon plants for trees and 5-gallon plants for shrubs at a minimum ration of 1:1. The two 35" + oak trees impacted by project implementation, will be mitigated by an enhanced replacement ratio (5-15 gal/10-1 gal) to the satisfaction of the Manager, PF&R/Harbors Beaches and Parks Division.

4.7 BIOLOGICAL RESOURCES	
Standard Conditions of Approval	
F.	All transplanting of trees shall be performed by an experienced nursery or other landscape contractor, who shall care for the trees for at least six months after transplanting
G.	Prior to issuance of final certificates of use and occupancy, all transplanted or replacement trees and shrubs shall be installed in accordance with the tree preservation plan.
H.	Oak trees shall not be subjected to increased runoff from irrigation systems, impermeable surfaces, storm drain discharge, etc.
I.	Natural drainage courses and natural grades in proximity of, and providing seasonal irrigation to oak trees shall not be altered.
J.	Grading, placement of fill, storage of building materials and heavy equipment, structural development, and hardscape (e.g., roads, sidewalks, patio slabs and pool decks) shall be prohibited within the drip line (outer edge of branches) of any tree During grading and construction operations, all trees shall be temporarily fenced off with chain link fencing to protect such areas.
K	Use of pre-emergent weed killers shall be prohibited within 10 feet of the drip line of any individual tree and within any natural drainage course which seasonally irrigates trees
L.	Use of soil sterilizers shall be prohibited because they kill everything in the soil.
SC 7-9	Specify areas/lots to be dedicated or irrevocably offered to the County in fee or easement for landscape maintenance purposes, scenic or resource preservation purposes or resource replacement shall be landscaped, equipped for irrigation, and improved in accordance with an approved plan as stated below: a) Preliminary Plan -An agreement shall be entered into and financial security posed guaranteeing landscape improvements and the maintenance thereof based on a preliminary landscape plan showing major plant material and uses, with a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches and Parks Division. Said plan shall take into account the previously approved landscape plan for AP 95-7, the EMA Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and Specific Plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).

4.7 BIOLOGICAL RESOURCES	
Standard Conditions of Approval	
	b) Detailed Plan - Prior to the issuance of any building permit(s), a detailed landscape plan shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches and Parks Division. Detailed plans shall show the detailed irrigation and landscaping design.
	c) Installation Certification - Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, said improvements shall be installed and shall be certified by a licensed landscape architect or licensed landscape contractor, as required, as having been installed in accordance with the approved detailed plans. Said certification, including an irrigation management report for each landscape irrigation system, and any other required implementation report determined applicable, shall be furnished in writing to the Manager, PF&R/Construction Division, and the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use and occupancy.
SC 7-10	Prior to the issuance of precise grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), EMA Standard Plans, area plan 95-7, scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed by the future homeowners association and be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division.
SC 7-11	Prior to the issuance of grading permits, the applicant shall provide additional evidence that the onsite coastal sage scrub habitat is not occupied by California gnatcatchers, in accordance with current USFWS protocol (7 in season/9 out of season pass surveys) to the satisfaction of the USFWS and the Administrator, Planning and Zoning Should occupied coastal sage scrub habitat be identified onsite by the surveys consultation shall be initiated with the USFWS, and a coastal sage scrub/gnatcatcher mitigation plan shall be developed to the satisfaction of the USFWS and the Administrator, Planning and Zoning prior to the issuance of grading permits.
SC 7-12	Prior to the issuance of grading permits, the applicant shall provide appropriate measures to mitigate the project related impacts to onsite wildlife movement, to the satisfaction of the USFWS, CDFG and the Administrator, Planning and Zoning. Mitigation shall consider onsite as well as offsite mitigation options, and established fee programs.

4.7 BIOLOGICAL RESOURCES	
Standard Conditions of Approval	
SC 7-13	Prior to the issuance of grading permits, the applicant shall provide assurances to the satisfaction of the County NCCP coordinator and the Administrator, Planning and Zoning, that the proposed project will participate in the NCCP planning process and not preclude the finalization of the Southern Subregional reserve component of the NCCP.
SC 7-14	Prior to the issuance of grading permits, the applicant shall prepare a relocation and establishment mitigation plan, designed to mitigate impacts to Riverside fairy shrimp/pond habitat, wetlands, and southern sycamore woodland, to the satisfaction of the Administrator, Planning and Zoning, in consultation with USFWS and CDFG. Mitigation shall consider onsite as well as offsite mitigation options, as well as, established fee programs.

4.7 BIOLOGICAL RESOURCES			
Potential Significant Effects of the Proposed Project			
Potential Project Impacts		**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Sensitive Vegetation Project implementation would result in the direct impact to: 1) 50.30 acres of Venturan-Diegan transitional costal sage scrub; 2) 14.6 acres of coast live oak woodland; 3) 9.9 acres of southern sycamore riparian woodland; 4) 3 8 acres of mulefat scrub; and 5) 0 60 acres of ephemeral pond. **Impact: Sensitive Animals** Implementation of the proposed project would result in direct impacts to the Riverside fairy shrimp, a Federal endangered species. In addition, impacts to the orange-throated whiptail, coastal whiptail, coastal cactus wren, and Southern California rufous-crowned sparrow.	AM 7-15	The following recommendations are proposed to further minimize some of the proposed impacts. • Where possible, bulbs of individual Catalina Mariposa Lily and Intermediate Mariposa Lily that are to be impacted shall be dug up and transplanted to a suitable habitat with similar soil, slope exposure, etc. • Lighting within development projects adjacent to conserved habitat should be selectively placed, shielded, and directed away from that habitat. In addition, lighting from homes abutting conserved habitat should be screened with vegetation, and large spotlight-type lighting that may affect conserved habitat should be prohibited. These lighting restrictions should be incorporated into the project's CC&Rs	Project specific and cumulative impacts to coastal sage scrub would remain an unavoidable adverse impact until such time as a section 4(d) interim take is authorized.

4.7 BIOLOGICAL RESOURCES		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Wildlife Movement Implementation of the proposed project would conflict with existing wildlife movement corridors, as depicted in the Foothill-Trabuco Specific Plan. **Cumulative Impacts:** Cumulative impacts to coastal sage scrub habitat, oak woodland and sycamore riparian habitat is considered significant.		

4.8 AESTHETICS	
Project Design Features	
PDF 8-1	All public utilities shall be situated underground.
PDF 8-2	Where feasible, drainage devices (terrace drains, benches, and intervening terraces) shall be bermed and placed in swales.
PDF 8-3	Concrete drainage swales and other similar drainage infrastructure shall be tinted with an appropriate earth tone to effectively conceal them from surrounding view.
PDF 8-4	The water tank shall be bermed, landscaped and painted to blend with the surrounding environment.

Standard Conditions of Approval	
SC 8-5	Prior to the issuance of any building permits, an agreement shall be entered into and financial security posted guaranteeing landscape improvements and the maintenance thereof based upon a detailed landscape plan showing landscape design and irrigation with a cost estimate for the landscape improvements approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division Said plan shall take into account previously approved landscape plan(s), PF&RD Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, water conservation measures contained in Board Resolutions 90-487 (Water Conservation Measures), and 90-1341 (Water Conservation Implementation Plan).
SC 8-6	Prior to the issuance of preliminary grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan(s), PF&RD Standard Plans, area plan 95-7 scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolutions 90-487 (Water Conservation Measures) and 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed and approved by Manager, PDS/Building Permits Services Division, Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division, Environmental and Projects Planning Division.
SC 8-7	Prior to the issuance of certificates of use and occupancy and release of financial security, applicant shall install the approved landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, as applicable, certify that it was installed in accordance with the certified plan Said certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, shall be furnished in writing to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use and occupancy.
SC 8-8	Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, PDS/Building Permits Services Division

4.8 AESTHETICS		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Aesthetic Impact to Surrounding Land Use Implementation of the proposed project, prior to application of the recommended mitigation measures would result in potential aesthetic impact to the following surrounding land use: O'Neill Regional Park, Ramakrishna Monastery, St. Michael's Abbey. These significant impacts would be related to the following visible project features: 1) grading, including cut and fill slopes; 2) units; 3) drainage improvements; 4) native vegetation removal, and 5) night lighting.	The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations: AM 8-9 Prior to issuance of any grading permit, the project proponent shall provide evidence to the Manager, PDS/Subdivision and Grading Services Division that indicates that graded areas will be compatible with natural landform characteristics. Criteria to achieve the desired effect shall include: a) Recontouring the existing landforms to provide a smooth and gradual transition between graded slopes and existing grade while preserving the basic topographic character of the site. b) Variation and combination of slopes 2:1, 3.1 and 4:1 to create a more natural character wherever possible within the graded areas. c) Attempting to balance between cut and fill within the overall area to eliminate an offsite and import/export situation. d) Obscuring slope drainage structures with a variety of plant materials. e) Incorporation of architectural and design techniques into the project in order to minimize grading and enhance offsite views (e.g., split levels, clustering). f) Preservation of visual opportunities from hillsides by providing for panoramic views from selected locations (e.g., view corridors, sensitive landscape placement).	As the first large tract proposed within the Specific Plan area, the project will contribute to the cumulative impacts to existing rural and natural open space, and to a continuing urbanization of foothill areas in south Orange County.

4.8 AESTHETICS		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Mitigation Measures**	**Unavoidable Adverse Impacts**
	AM 8-10 Manufactured slopes shall be replanted with vegetation native to the site to blend the new topography with existing natural on site vegetation, immediately following precise grading operations. AM 8-11 Fuel modification areas shall be planted with fire resistant vegetation. AM 8-12 Use of the California Sycamore or other species similar to trees currently existing onsite shall be used in appropriate common area and street landscape locations where feasible. AM 8-13 Common area landscaping and habitat transition zones shall utilize the FTSP recommended plant palette (appendix E) when selecting plant material. AM 8-14 Slope landscaping shall occur as soon as feasible after grading and be maintained by the applicant until a homeowners association has been organized and assumes long term maintenance responsibility. **Light and Glare** AM 8-15 Prior to issuance of any certificate of use and/or occupancy, the potentially adverse impact of night lighting on surrounding land use shall be mitigated to the satisfaction of the Manager, PDS/Subdivision and Grading Services Division by the following measures: a) Street lights shall only be installed at intersections and as required to insure public safety. b) Low intensity halogen street lamps shall be used c) Street lights shall be shielded to direct the light beam downward and to avoid direct glare into open space areas and adjacent property	Permanent viewshed alteration will occur even after the incorporation of the recommended mitigation measures. In addition, night lighting glare will change night views from an unlit dark open space area to an urban night environment.

4.9 CULTURAL/SCIENTIFIC RESOURCES

Project Design Features

No project design features were included in this project

Standard Conditions of Approval

Archaeology

SC 9-1 Prior to the issuance of any grading permit, a County-certified archaeologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified archaeologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PF&R/Harbors Beaches and Parks Division. A report of the literature and records search and the field survey shall be submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division. Mitigation measures may be required depending upon the recommendations of this report. This mitigation measure has been completed as part of the Draft EIR.

SC 9-2 Prior to issuance of any grading permit, a county-certified archaeologist shall be retained by the applicant to perform a subsurface test level investigation and surface collection as appropriate. The test level report evaluating the site shall include discussion of significance (depth, nature, conditions and extent of the resources), final mitigation recommendations and cost estimates and shall be approved by the Manager, PF&R/Harbors Beaches and Parks Division. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis.

SC 9-3 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained to conduct pre-grade salvage excavation of the archaeological resources in the permit area. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. A final report of the salvage operation shall submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division, prior to any grading.

SC 9-4 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained, shall be present at the pre-grading conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project developer, for exploration and/or salvage. The archaeologist shall submit a follow-up report to the Manager, PF&R/Harbors Beaches and Parks Division, which shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, PF&R/Harbors Beaches and Parks Division.

4.9 CULTURAL/SCIENTIFIC RESOURCES		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	Additional Mitigation Measures	Unavoidable Adverse Impacts

Impact: Archaeological and Paleontological Resources Cultural, archeological and paleontological resources are non-renewable in character and can be lost forever unless adequate mitigation measures are taken to ensure their recovery and preservation The project is known to contain significant deposits of artifacts and fossils, as well as a ranch house ruin circa 1920.	**Additional Mitigation Measures** The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations in a manner acceptable to the Manager, PF&R/Harbors Beaches and Parks Division Facilities. AM 9-5 Prior to site grading the project site shall be examined by a qualified archeologist, all potential archeological sites identified, and surface collection and documentation of artifacts be conducted. AM 9-6 As indicated by the project archeologist, sites warranting further study shall be disced to ascertain the extent and significance of the deposit If the project archeologist determines that a site is potentially of cultural worth, then additional excavation in a manner determined by the project archeologist shall occur prior to further grading or construction activities at these locations AM 9-7 During initial grading, the project site shall be monitored by a qualified archeologist who shall have the authority to order a temporary cessation of grading activities and take appropriate action to preserve any culturally significant materials if uncovered. AM 9-8 If human remains of Native American origin are encountered during the project the County Coroner's Office and the Native American Heritage Commission shall be contacted for preservation and protection of the remains. **Paleontology** SC 9-9 Prior to the issuance of any grading permit, a County-certified paleontologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified paleontologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PF&R/Harbors Beaches and Parks Division. A report of the literature and records search and field survey shall be submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division, Future mitigation shall depend upon the recommendations of the report. This mitigation measure has been completed.	None.

4.9 CULTURAL/SCIENTIFIC RESOURCES			
Potential Significant Effects of the Proposed Project			
Potential Project Impacts	**Mitigation Measures**		**Unavoidable Adverse Impacts**
	SC 9-10	Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained by the applicant to conduct pre-grade salvage and prepare a catalogue of the exposed resources. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PF&R/Harbors Beaches and Parks Division, for review and approval, which shall include methodology, an analysis of artifacts found, a catalog of artifacts, and their present repository. This mitigation measure has been completed.	
	SC 9-11	Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grading conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If major paleontological resources are discovered, the paleontologist shall determine appropriate actions, in cooperation with the project developer, which ensure proper exploration and/or salvage Excavated finds shall be offered to the County of Orange, or its designee, on a first-refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PF&R/Harbors Beaches and Parks Division, which shall include the period of inspection, a catalogue and analysis of the fossils found, and present repository of the fossils. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the Manager, PF&R/Harbors Beaches and Parks Division.	

4.9 CULTURAL/SCIENTIFIC RESOURCES		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
	Additional Mitigation Measures The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner acceptable to the Manager, a Coastal and Historical Facilities. AM 9-12 A qualified paleontologist shall be retained to perform periodic inspections of excavations and, if necessary, salvage exposed fossils. The frequency of inspections will depend on the rate of excavation, the materials being excavated, and the abundance of fossils. Initially, monitoring shall be on a full time basis in all excavations because of the high potential for the discovery of fossils in all the rock units present in the study area. AM 9-13 The paleontologist shall be allowed to divert or direct grading in the area of an exposed fossil to facilitate evaluation and if necessary, salvage. AM 9-14 To recover small fossils, it will be necessary to collect sediment samples from promising horizons discovered during grading monitoring for processing through fine mesh screens. Once the samples have been screened, they will be examined microscopically for small fossils AM 9-15 Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository. AM 9-16 All fossils collected should be donated the County of Orange's designated repository. AM 9-17 A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project.	None.

4.9 CULTURAL/SCIENTIFIC RESOURCES		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Mitigation Measures**	**Unavoidable Adverse Impacts**
	Historical Resources SC 9-18 Prior to issuance of a grading permit, project applicant shall provide written evidence to Manager, PF&R/Harbors Beaches and Parks Division that an historian has been retained by the applicant to implement final mitigation measures. A final report shall be submitted to and approved by the Manager, PF&R/Harbors Beaches & Parks Division prior to any alteration of the historical site area. SC 9-19 Development adjacent to a place, structure, or object of historic significance shall be designed so that permitted uses and architectural design will protect the visual setting of the historic site. Such design shall be submitted to and approved by the Manager, PF&R/Harbors Beaches & Parks Division prior to any alteration of the historical site area.	None.

4.10 RECREATION	
Project Design Features	
PDF 10-1	The Live Oak and Aliso Creek riding and hiking trail shall be located on the Project Site as shown in Exhibit 7 and Exhibit 63 Site Plan.
PDF 10-2	Live Oak Canyon Trail shall be constructed onsite, connecting O'Neill Regional Park to the Aliso Creek riding and hiking trail, as shown in Exhibit No. 7, Site Plan.
PDF 10-3	Eight onsite private parks shall be constructed as shown on Exhibit 7 Site Plan, to offset project demand

4.10 RECREATION	
Standard Conditions of Approval	
SC 10-4	The developer or his assigns and successors in interest shall maintain offered park site(s) until such time as the County or its designer accepts the offer of dedication, all in a manner of meeting the approval of the Manager, PF&R/Harbors Beaches & Parks Division.

4.10 RECREATION		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Local Park Demand Implementation of the proposed project, prior to mitigation would result in significant impact to existing local park demand The Foothill/Trabuco Specific Plan indicates that a proposed view park is to be located on a prominent ridge top near the northeast corner of the site Current plans do not include provisions for this park.	The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations: AM 10-5 Prior to the first building occupancy, the applicant shall pay all park mitigation as required by the Department Manager, PF&R/Harbors Beaches & Parks Division. AM 10-6 Prior to final building occupancy the applicant shall dedicate and construct all required regional trail connections and improvements as approved and required by the Department Manager, PF&R/Harbors Beaches & Parks Division.	None.

4.11 HAZARDS

Project Design Features

PDF 11-1	Implement a comprehensive fuel modification program in accordance with Section 27 of Appendix II-A of the 1994 Uniform Fire Code as adopted by County Ordinance 3954 (the Wildland Urban Interface Task Force report was not adopted and is not enforced by the OCFA). Exhibits 9 and 64 illustrate the fuel modification zones and, although adequately described, it should be noted that the distances are horizontal measurements rather than vertical and, therefore, may actually be larger zones as measured vertically up or down a slope (based on topography).
PDF 11-2	Incorporate the use of native, low fuel plant species into the landscape plan for both manufactured slope areas and remedial grading areas where appropriate as approved by the OCFA
PDF 11-3	Provide for the construction of a water tank off site to ensure adequate on site water supply and OCFA fire flow requirements. The minimum fireflow requirements for this project of 1500 gpm for a minimum of 2 hours at 20 psi residual pressure. This flow must be available 24 hours per day .
PDF 11-4	Wet and dry utilities shall be constructed on opposite sides of the project streets to minimize land closure during maintenance periods.
PDF 11-5	Residential structures shall be constructed of fire-resistant material, including but not limited to "Class A roof assemblies", closed eaves and offsets, double paned or dual glazed windows, and the exterior walls of structures will be constructed of " 1-hour fire resistant materials", and all structures will have fire sprinklers.
PDF 11-6	All residential structures shall be required to have automatic interior fire sprinkler systems.
PDF 11-7	The interface area between residential lots and open space areas within the project boundary shall be wrought iron fenced to minimize intrusion of wildlife into the built portions of the project site.

Standard Conditions of Approval

SC 11-8	Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.
SC 11-9	Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.

4.11 HAZARDS	
Standards Conditions of Approval	
SC 11-10	Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.
SC 11-11	Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to the Fire Chief for review and approval.
SC 11-12	Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be clearly marked.
SC 11-13	Prior to the issuance of any certificates of use and occupancy, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.
SC 11-14	Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief. Contact the Orange County Fire Department at (714)744-6623 for a copy of the "Guidelines for Fire Department Emergency Access".
SC 11-15	Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manger, Environmental and Project Planning. The Planning and Development Section shall be contacted at 744-0403 for requirements to be met and clearance of this condition. The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants.
SC 11-16	Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be necessary by the Fire Chief before the introduction of any combustible construction material into the project area
SC 11-17	Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.

4.11 HAZARDS		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Wildfire Due to topography, biology, and weather conditions the project site is located in an area classified as a "Special Fire Protection Area" by the Orange County Fire Authority. **Impact: Emergency Access** Only one main access roadway can be provided to the eastern portion of the site which is of concern since this roadway can become obstructed in emergency situations creating an impact to public safety. **Impact: Wildlife Interaction** Conflict between wildlife and project residents and pets is an associated project risk due to the proximity of wild areas to the subject site		**Wildfire Impacts:** None. **Emergency Access:** None. **Wildlife Interaction:** None.

4.12 PUBLIC SERVICES	
Project Design Features	
Sheriff	
PDF 12-1	The Orange County Sheriff's Department shall be consulted during final project design to minimize security related impacts.
Fire	
PDF 12-2	Implement a comprehensive fuel modification program in accordance with the guidelines established by the Wildland Urban Interface Task Force, July 1994, as approved by the Orange County Fire Authority (OCFA).
PDF 12-3	Incorporate the use of native, low fuel plant species into the landscape plan for both manufactured slope areas and remedial grading areas where appropriate as approved by the OCFA.
PDF 12-4	Provide for the construction of a 1.4 million gallon water tank offsite to ensure adequate onsite water supply for water supply and fire flow use.
PDF 12-5	Wet and dry utilities shall be constructed on opposite sides of the project streets to minimize land closure during maintenance periods.
PDF 12-6	Residential structures shall be constructed of fire resistant material as approved by the OCFA. In addition, no ventilation openings shall be allowed on the side of residential structures facing natural areas.
PDF 12-7	OCFA shall have the ability to enter the property through the secondary access road located off of Valley Vista Way.

4.12 PUBLIC SERVICES	
Project Design Features	
Education	
No PDF proposed	
Library	
PDF 12-8	The developer shall pay any development fees required by the County of Orange Development Fee Program for libraries.
Solid Waste	
No PDF proposed.	
Standard Conditions of Approval	
SC 12-9	Prior to issuance of building permits, the applicant shall pay development fees for general County facilities if an applicable fee program has been adopted by the Board of Supervisors pursuant to Section 7-9-700 through 7-9-713 of the Codified Ordinances of the County of Orange, and such fee program is in effect at the time of issuance of building permits, all, in a manner meeting the approval of the Manager, PDS/Environmental and Project Planning Services.
Sheriff	
SC 12-10	Prior to the issuance of the first building permit, the project proponent shall enter into an agreement to (a) participate in funding the provision of the Saddleback Sheriff's Station; and (b) fund the provision of patrol and investigator cars needed to serve the project.

4.12 PUBLIC SERVICES	
Standard Conditions of Approval	
Fire	
SC 12-11	Prior to the issuance of any certificates of use and occupancy, all onsite fire protection devices, including fire sprinklers, fire hydrants, alarm systems and fire suppression facilities, shall be installed and maintained in good condition by the property owner in a manner meeting the approval of the Fire Chief.
SC 12-12	Prior to issuance of any building permits for combustible construction, a plan from the developer shall be submitted to and approved by the Fire Chief indicating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site
SC 12-13	Prior to issuance of certificates of use and occupancy, emergency access shall be constructed in a manner meeting the approval of the Fire Chief.
SC 12-14	The approved fuel modification plan shall be installed prior to the issuance of building permits, under the supervision of the Fire Chief, and completed prior to the issuance of any use and occupancy permits. The CC&R's shall contain provision for maintaining the fuel modification zones including the removal of all dead and dying vegetation and the inspection and correction of any deficiencies in the irrigation system three times a year.
SC 12-15	Prior to the issuance of any grading permits, as part of the area plan, a fuel modification plan and program shall be submitted and approved by the Fire Chief. Contact the Wildland Fire Defense Planning Section at 744-0498 for requirements and clearance of this condition The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation. Include the method (mechanical or hand labor) for removal of flammable vegetation and the planting of drought tolerant fire resistant plants.

4.12 PUBLIC SERVICES

Standard Conditions of Approval

SC 12-16 Prior to the issuance of any grading permits, the applicant shall submit a list of the quantities of all hazardous, flammable and combustible materials, liquids or gases. These materials shall be classified according to the "Orange county Fire Department Chemical Classification Handout", including a summary sheet listing each hazard class, the total quantity of chemicals stored per class and the total quantity of chemicals used in that class, all in a manner meeting the approval of the Fire Chief.

SC 12-17 Prior to the issuance of any certificate of use or occupancy, all fire hydrants shall have a "Blue Reflective Pavement Marker" indicating its location on the street or drive per the Orange County Fire Authority Standard. On private property these markers are to be maintained in good condition by the homeowners association.

SC 12-18 Prior to the issuance of any building permits, plans for the automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. The system shall be operational prior to the issuance of the certificate of use and occupancy.

SC 12-19 Prior to the issuance of any grading permit, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief indicating the locations of red curbing and signage. Provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color. The CC&R's shall contain a fire lane map, provisions which prohibit parking in the fire lanes, and a method of enforcing fire lane requirements by the homeowners association.

Education

SC 12-20 Prior to the issuance of building permits, the applicant shall pay all applicable school fees required in accordance with State law. Current school impact fees are $1.72 per square-foot of residential.

Library

No Standard Conditions of Approval Mitigation Measures proposed

4.12 PUBLIC SERVICES	
Standard Conditions of Approval	
Solid Waste	
SC 12-21	The potential for the proposed project to impact solid waste collection and disposal has been reduced to a level of insignificance through engineering design and construction techniques. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.
SC 12-22	Prior to the issuance of any building permits, a plot plan delineating the capacity, number, and location of all proposed solid waste collection areas shall be submitted to the Manager, HCA/Environmental Health, for review and acceptance A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.
SC 12-23	Prior to the approval of a building permit the applicant shall submit a Recycling/Source Reduction Plan to the Manager, PDS/Environmental and Project Planning Services Division, for review and approval Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during and following construction of the project. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.
SC 12-24	Prior to the issuance of any certificates of use and occupancy, the applicant shall provide verification that the solid waste plan delineating the capacity, number, and location of all proposed solid waste collection areas, previously reviewed and accepted by the Manager, HCA/Environmental Health, has been implemented/incorporated into the project, in a manner meeting the approval of the Manager, PDS/Building Inspection Services.
SC 12-25	Prior to the approval of a Site Development Permit the applicant shall submit a Recycling/Source Reduction Plan to the Manager, EMA/Project Planning Services Division, for review and approval. Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during and following construction of the project.
SC 12-26	Prior to the issuance of any certificates of use and occupancy, the applicant shall provide verification that the solid waste plan delineating the capacity, number, and location of all proposed solid waste collection areas, previously reviewed and accepted by the Manager, HCA/Environmental Health, has been implemented/incorporated into the project, in a manner meeting the approval of the Manager, PDS/Building Inspection Services Division.

4.12 PUBLIC SERVICES		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Additional Mitigation Measures**	**Unavoidable Adverse Impacts**
Impact: Public Services **Sheriff:** Based on an officer/population ratio of 2:1000, three additional officers would be required by the project, however, no significant impact is anticipated. **Fire:** The project site is located within an area classified as a "Special Fire Protection Area" by the OCFA. Because the project is designed with numerous lots being served by a single access road the OCFA has expressed concern that public safety will be compromised should this road become impassable. **Education:** Implementation of the proposed project would add 399 additional students to an already overcrowded school system.		Sheriff: None. Fire. None. Education: None. Library: None. Solid Waste: None

4.12 PUBLIC SERVICES		
Potential Significant Effects of the Proposed Project		
Potential Project Impacts	**Mitigation Measures**	**Unavoidable Adverse Impacts**
Library: Implementation of the proposed project would result in additional demand for library services in the project area, however this increase is not considered significant **Solid Waste:** The project adds to the cumulative waste generation demand for the County.		

4.13 PUBLIC UTILITIES AND SERVICE SYSTEMS

Project Design Features

Water

PDF 13-1 The new booster pump station shall be paid for by the applicant and designed and function according to TCWD's guidelines and standards.

PDF 13-2 Operational capacities and pressure parameters for design of the booster pump station (approved by OCFA) shall be determined at design stage and should incorporate but not be limited to the following requirements:

- It shall meet the maximum day demand for the "stand alone" zones of Saddleback Meadows with an operating time of 24 hours and without its largest unit in service
- It shall be designed with a back-up generator for the booster pump, as well as fuel and maintenance provisions.
- It shall incorporate the typical 3 or 4 pump system with an alternating state sequence.
- It shall pump from TCWD's El Toro Road zone (1,165 feet HWL) to the storage facility (reservoir) proposed.
- It shall have the ability to refill the proposed reservoir, if it were empty, within 72 hours while also providing for maximum day demands on the water system during that time.

PDF 13-3 Water conservation measures to be implemented consist of water-conserving features in the design and construction of residential homes and uses, plus use of drought-tolerant plant materials in the slope and streetscape plantings. Proposed water conservation measures also include:

- Supply line pressure. Water pressure greater than 50 pounds per square inch (psi) reduced to 50 psi or less by means of pressure-reducing valves.
- Ultra-low-flush toilets: 1.5 gallon-per-flush toilets installed in all new construction.
- Landscape with low-water-using plants wherever feasible.

4.13 PUBLIC UTILITIES AND SERVICE SYSTEMS	
Project Design Features	
	• Grouping of plants of similar water use to reduce over-irrigation of low-water-using plants. • Extensive use of mulch as top cover to improve water-holding capacity of the soil. • Installation of efficient irrigation systems that minimize runoff and evaporation, and maximize the amount of water reaching plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are proposed methods of increasing irrigation efficiency.
PDF 13-4	All design and landscape features shall comply with TCWD's guidelines and standards
Wastewater	
PDF 13-5	All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.
Electricity	
PDF 13-6	All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map
Natural Gas	
PDF 13-7	All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.
Cable	
PDF 13-8	All utilities shall be installed by Cox Cable in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.
Communications	
PDF 13-9	All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

4.13 PUBLIC UTILITIES AND SERVICE SYSTEMS			
Potential Project Impacts	**Standard Conditions and Mitigation Measures**		**Unavoidable Adverse Impacts**
All utility providers have indicated that increased service demands created by the project are within present or projected operating capacities.	**Water**		
	SC 13-10	Prior to the issuance of any building permit(s), the applicant shall provide a report to the Manager, PDS/Building Permits Services Division, indicating that plans showing the location of all proposed reclaimed water lines used to irrigate open spaces, parks, and other landscaped areas, have been submitted to and approved by the Trabuco Canyon Water District.	None
	SC 13-11	Prior to the issuance of building permits, water conservation measures shall be incorporated into the development design plans and which shall be submitted for approval to the Trabuco Canyon Water District	None
	Wastewater		
	SC 13-12	Prior to the issuance of a certificate of use and occupancy, sewer lines, connections, and structures shall be installed in a manner meeting the approval of the Manager, HCA/Environmental Health. A. All waste water facilities and line shall be constructed and maintained to meet TCWD standards and requirements. B. All sewer lines shall be underground facilities. C. The project shall comply with all State of California Health and Safety Codes.	None
	Electricity		
	SC 13-13	Prior to the issuance of a building permit, project proponent shall consult with the local gas and electric companies regarding feasible energy conservation features that should be included in the design of the proposed project A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.	None

4.13 PUBLIC UTILITIES AND SERVICE SYSTEMS			
Potential Project Impacts	**Standard Coditions and Mitigation Measures**		**Unavoidable Adverse Impacts**
	SC 13-14	Prior to the issuance of a building permit, the project proponent shall incorporate passive or natural heating and cooling opportunities in the design of the proposed project including but not limited to the following: solar energy use; thermal insulation; tinted or solar reflective glass; orientation to sunlight, use of deciduous trees in landscaping, installation of roof fans; utilize fluorescent lighting, switches and thermostat, utilize time-controlled lighting; and, utilize AC units with 100% outdoor air economize A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.	
	Natural Gas		
	SC 13-15	The applicant shall provide for all lines and mains necessary to provide natural gas to the project.	None
	SC 13-16	The applicant shall obtain all required permits and follow all SCG, State and County regulations and requirements regarding natural gas service.	None
	Cable		
	No standard condition requirements.		None
	Communications		
	SC 13-17	Applicant shall comply with the requirements of the California Public Utilities Commission and Pacific Bell Telephone Company for the provision of telephone service.	None

2.0 INTRODUCTION

2.1 PURPOSE OF THE SUBSEQUENT EIR

The purpose of this Draft Subsequent Environmental Impact Report (SEIR) is to provide substantive information to the decision makers (Planning Commission), responsible and trustee agencies, and the public regarding the potential adverse environmental effects associated with implementation of the proposed project and related actions. Section 15162 of the CEQA guidelines states:

(a) *When an* EIR has been *certified or a negative declaration adopted for a project* no *subsequent* EIR shall be prepared *for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following*:

1) *Substantial* changes are proposed in the project which will require *major* revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental *effects or a substantial increase in the severity of previously identified significant effects;*

2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require *major* revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental *effects or a substantial increase in the severity of previously identified significant effects; or*

3) New information of substantial importance, which was not known and could not have been known *with the exercise of reasonable diligence,* at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows (sic) any of the following:

(A) The project will have one or more significant effects not discussed in the *previous* EIR *or negative declaration;*

(B) Significant effects previously examined will be substantially more severe than shown in the *previous* EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, *but the project proponents decline to adopt the mitigation measure or alternative; or*

(D) Mitigation measures or alternatives which *are considerably different from those analyzed* in the *previous* EIR would substantially *reduce* one or more significant effects on the environment, *but the project proponents decline to adopt the mitigation measure or alternative.*

(b) *If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subsection (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, and addendum, or no further documentation.*

(c) If the project was approved prior to the occurrence of the conditions described in the subsection

(a) the subsequent EIR *or negative declaration* shall be prepared by the public agency which grants the next discretionary approval for the project. In this situation no other Responsible Agency shall grant an approval for the project until the subsequent EIR has been *certified or subsequent negative declaration adopted.*
(d) *A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.*

In addition, the EIR identifies mitigation measures to reduce potential adverse impacts to a less than significant level and evaluates alternatives to the proposed project which would result in less adverse environmental effects than the proposed project. Mitigation measures will be incorporated into conditions of approval and serve as the basis for the mitigation monitoring program.

This Subsequent EIR will also be used by the agencies identified in Section 3.2 during project review and issuance of discretionary permits.

The Draft EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), California Public Resources Code Section's 21000, et seq, the State CEQA Guidelines, Title 14, California Code of Regulations 15000, et seq, and the Orange County Planning and Development Services (PDS), "EIR Handbook - Guidelines for Preparing Environmental Impact Reports," July '91.

2.2 ENVIRONMENTAL PROCEDURES

On December 24, 1996 the Orange County Planning and Development Services Department (PDS) issued a Notice of Preparation (NOP) initiating the pre-circulation review period during which interested parties were requested to provide comments on the scope and content of the Draft EIR. On February 6, 1997, the PDS issued a revised NOP to the same parties. The NOP was revised to include a description of the commercial component of the project and an updated description of project alternatives. A list of NOP commentators and a summary of their comments are included in Appendix C of the Draft Subsequent EIR. The Initial Study circulated with the Notice of Preparation identified the following twelve (12) environmental factors to be evaluated in the Draft EIR:

- Land Use and Planning
- Geophysical
- Water
- Transportation/Circulation
- Air Quality
- Noise
- Population & Housing
- Energy & Mineral Resources
- Biological Resources
- Aesthetics
- Cultural\Scientific Resources
- Recreation
- Hazards
- Public Services/Utilities
- Utilities & Service Systems

The following public agencies submitted comments on the NOP:

- City of Mission Viejo, Community Development, 1/27/97
- City of Lake Forest, Community Developments Departments, 4/23/97

- Southern California Association of Governments, Intergovernmental Review, 12/31/96 2/13/97
- Southern California Association of Governments, 1/10/97
- Southern California Gas Company, 1/10/97, 2/18/97
- State of California, Dept. of Fish & Game, 1/30/97, 3/7/97, 3/12/97
- State of California, Governor's Office of Planning & Research, 12/31/96
- State of California, Dept. of Transportation, 1/21/97, 3/5/97
- Trabuco Canyon Water District, 1/21/97, 2/25/97
- Transportation Corridor Agencies, Environmental Services, ½/97
- United States Marine Corps, 1/7/97, 2/26/97
- U.S. Fish and Wildlife Service, 1/30/97, 3/7/97

A complete list of responsible and trustee agencies who received the NOP is included in Appendix C.

The following private organizations and individuals submitted comments on the NOP.

- Diequeno/Coastal Gabrieleno, Jim Velasques, 3/7/97
- Donald Finn, 2/26/97
- VerLyn Jensen Esq.(St. Michael's Abbey), 3/5/97
- James Loeper, Dawn Loeper, 2/17/97
- Charles Mitchell & Associates (Vedanta Society), 1/27/97
- William D. Ross Esq., 2/28/97
- Rutan & Tucker LLP, David B. Cosgrove Esq.(St. Michael's Abbey), 1/3/97
- Bernard Siegel, Cynthia Siegel, 2/28/97
- Vedanta Society of Southern California, Richard Jennings, 1/20/97
- Elizabeth Wallace (Portola Hills), 3/10/97

A summary of NOP comment letters is contained in a matrix in Appendix C of this document. Issues raised include the following:

- EIR Preparation
- MCAS El Toro Noise Impacts
- Land Use Compatibility
- Extensive Grading
- Wildlife Movement
- Endangered Species
- Mitigation Measures
- Road Access
- Air Quality
- Noise and Glare
- Fuel Modification Requirements
- Housing Affordability Guidelines
- Soil Erosion
- Aesthetics/Visual Impacts
- School Overcrowding
- Park Facilities
- Traffic Generation
- Overburdened Public Services
- Remedial Grading
- Water Quality
- Inconsistency with Other Plans
- Findings in Previous EIR
- Geophysical Stability
- Cumulative Impacts
- Inadequate Water Supply

Although not specifically addressed in the current set of NOP comments, a number of letters received from private organizations and individuals concerning the preceding EIR identified preparation process as a concern. Of particular concern is the issue of who can prepare an EIR. Section 21082.1 of the Public Resources Code states:

> *(a) Any draft environmental impact report, environmental impact report, or negative declaration prepared pursuant to the requirements of this division shall be prepared directly by, or under contract to, a public agency.*
>
> *(b) This section is not intended to prohibit, and shall not be construed as prohibiting, any person from submitting information or other comments to the public agency responsible for preparing an environmental impact report, draft environmental impact report, or negative declaration. The information or other comments may be submitted in any format, shall be considered by the public agency, and may be included, in whole or in part, in any report or declaration.*
>
> *(C) The lead agency shall do all of the following:*
>
> *(1) Independently review and analyze any report or declaration required by this division.*
>
> *(2) Circulate draft documents which reflect its independent judgement.*
>
> *(3) As part of the adoption of a negative declaration or certification of an environmental impact report, find that the report or declaration reflects the independent judgement of the lead agency.*

In Friends of La Vina v. County of Los Angeles (2d Dist. 1991) 232 Cal. App. 3d 1446 [284 Cal. Rptr. 171], the court analyzed CEQA Guidelines Section 15084, subdivision (d), which expressly allows agencies to "accept a draft prepared by the applicant, a consultant retained by the applicant, or any other person", recognizing that the same provision requires the agency to subject such a draft to its "own review and analysis " The Court added that any document released to the public must "reflect the independent judgement" of the agency, and that the agency is "responsible for the adequacy and objectivity of the Draft EIR." The Court held that this standard of "independent review," which has been cited in previous published CEQA cases, is consistent with the statutory language. (The 1991 amendments to section 21082.1 now require agencies to "independently review and analyze any report or declaration" required by CEQA, to "circulate documents which reflect their independent judgement," and to find, in approving a negative declaration or certifying a Final EIR, that the document in question "reflects the independent judgement of the lead agency.")

As lead agency, the County of Orange Planning & Development Services Division, although allowing the project applicant to contract for a consultant for the preparation of the Draft Environmental Impact Report and proposed responses to public comments, retains at all stages of the proceedings the right to independently evaluate the information set forth.

Following completion of the Draft Subsequent EIR, the document will be circulated to the State Clearinghouse, Office of Planning and Research, and responsible and trustee agencies for review and

comments. All comments received on the Draft Subsequent EIR will be responded to and incorporated into the Final Subsequent EIR The Response to Comments document will be recirculated to commenting agencies and individuals at least ten (10) days prior to conducting a public hearing on the project.

2.3 INCORPORATION BY REFERENCE

In accordance with Section 15150 of the CEQA Guidelines, the Draft Subsequent EIR hereby incorporates analysis contained in the following documents by reference:

- Foothill-Trabuco Specific Plan Final EIR No. 531, December 1991, SCH No 9001143;
- Saddleback Meadows Final EIR No. 059, May 1978;
- EIR No. 061 [Final EIR for Glenn Ranch (Portola Hills) dated November 13, 1979];
- EIR No. 439 [Final Focused EIR for the Morton W. Herrmann property (Hidden Ridge, dated December 12, 1984)]; and,
- FEIR No. 459 [Final Program EIR for Portola Hills (Glenn Ranch) dated December 17, 1986].
- DEIR No. 561 [Draft EIR for Saddleback Meadows dated October 1995, SCH No. 95081033]

Incorporation by reference assists in reducing the size of EIRs through including descriptive materials which do not contribute directly to the analysis at hand. The above noted documents are available for review at the Orange County Planning & Development Services Department/ Environmental and Project Planning Division.

The Foothill/Trabuco Specific Plan EIR evaluated the environmental effects of implementation of the Specific Plan on a programmed level consistent with the development goals, objectives and policies of the Specific Plan The EIR contains a full scope analysis of environmental factors associated with the project area. The Foothill-Trabuco Specific Plan EIR states:

> *EIR 531 has been prepared as a Program EIR as part of a tiered EIR process. "Tiering," according to CEQA, means the coverage of general matters and environmental effects in an EIR prepared for a policy, plan, program or ordinance followed by narrower or site-specific EIRs which incorporate by reference the discussion in any prior EIR (CEQA Section 21068.5). Subsequent environmental documentation, if necessary, required for subsequent discretionary approvals (area plans, site plans, use permits, subdivision maps, etc.) will rely on the finding in EIR 531 as the basis for more detailed analysis and will incorporate these findings and all supporting documentation by reference. An Initial Study will be conducted per CEQA for each subsequent discretionary approval to determine whether additional*

environmental documentation is needed.

This Subsequent Environmental Impact Report contains a focused and specific analysis of impacts on the environment associated with implementation of the project.

2.4 BACKGROUND

The proposed project is the culmination of planning efforts with the County of Orange over a eighteen (18) year period. The following chronology identifies key dates in the projects' history:

Table 3
SADDLEBACK MEADOWS PROJECT CHRONOLOGY

DATE	PROJECT RELATED EVENT
August 8, 1978	- The Orange County Board of Supervisors adopted GPA 78-1, Item 4, the "Saddleback Meadows Mobile Home Subdivision" which granted a change in the Land Use Element designation for the site from 5.4 Other Open Space to 1.22 Medium Low Density Residential and 2.1 Local Commercial. Maximum number set at 617 dwelling units. Triggering mechanism to revert land use designation to original after 2 years commenced. EIR 059 certified.
February 6, 1979	- Board adopted Site Plan conditions as requirements for implementing the subject amendment. Draft EIR 059, which was the CEQA documentation for the site plan, identified major grading impacts as project related impacts; these impacts were also shown on grading plans for Tentative Tract Map TT10692, prepared for the project.
March 7, 1979	- Zone change application, Tentative Tract Map and Initial Study requests submitted to County for a maximum of 617 mobile home units and a neighborhood convenience commercial center on the project site.
March 29, 1979	- Determination of requirement for an EIR transmitted to applicant by Environmental Services Division (ESD).
June 5, 1979	- Appeal of EIR requirement by Cliff Russell, representing Worthington/McNiff.
June 11, 1979	- The Orange County Planning Commission denied the appeal. Supplemental EIR required for proposed 617 unit tentative tract map.
June 25, 1979	- Zone Change 79-24 submitted to County. The project proposed at this time consisted of 617 units.
August 7, 1979	- Revised Tentative Tract Map was submitted to the County for Screencheck reflecting some design modifications requested by County staff as well as an increase of 145 dwelling units added to the project by the proponent.
August 17, 1979	- Revised Tentative Tract Map and Supplemental Environmental Information

submitted to Environmental Services (ESD). Submittal raised many questions with ESD in that the project had been revised substantially with a 23.5% increase in total number of units and intensity of land use.

August 21, 1979 - Revised Zone Change 79-24 received by the County reflecting the revised project proposal of 762 units, with 25% in affordable range.

November 28, 1979 - Revised TT10692 filed with Environmental Management Agency depicting 727 lots, including 714 residential lots, 1 commercial lot and several open space and utility lots.

December 13, 1979 - TT10692 approved by the Planning Commission with recommendation that Zone Change ZC79-24 be approved by Board of Supervisors.

January 9, 1980 - Saddleback Meadows properties placed in the PC "Planned Community" District and adopted by Board of Supervisors, Ordinance Number 3177. Final EIR 203 certified.

October 28, 1981 - Two year extension of time to record to expire December 12, 1983 approved by the Subdivision Committee.

December 7, 1981 - Appeal to deny two year extension of time affirmed by Planning Commission. One year extension of time to record to expire December 12, 1982 granted by Planning Commission.

November 17, 1982 - An additional one year extension of time to record to expire December 12, 1983 approved by Subdivision Committee.

July 13, 1983 - Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance Number 3398 (ZC82-63P).

October 26, 1983 - Third one year extension of time to record approved.

June 13, 1984 - Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance 3486 (ZC84-3P).

October 24, 1984 - 589-day stay of time in which to record a final tract map approved by Subdivision Committee. Expiration date extended to July 24, 1986.

July 24, 1986 - Water district could not provide sewer service; recordation not allowed until sewer capacity available.

September 21, 1988 - Execution between Southmark and the Trabuco Canyon Water District of "Agreement for Designing Construction of Master Plan Facilities, Tract No. 10692";

September 21, 1988 - Execution between Southmark and the Trabuco Canyon Water District as a

		document entitled "Agreement for Construction of Onsite Water and Sewer Facilities, Tract No. 10692";
December 16, 1988	-	Tract Map 10692 recorded.
February, 1989	-	Payment of $973,528.58, purchase of sewer treatment capacity rights in Trabuco Canyon Water District's Chiquita Wastewater System Facilities by predecessor to Applicant;
1989	-	Payment by predecessor to applicant to the Trabuco Canyon Water District in the amount of $904,475.00 for capital improvement charges based on the Equivalent Density Units of Recorded Tract No. 10692;
December 10, 1991	-	Foothill/Trabuco Specific Plan approved and Final EIR 531 certified by Orange County Board of Supervisors. The Specific Plan incorporated the Saddleback Meadows Planned Community Regulations as the Bridlewood Residential District.
April, 1994	-	Grading Permit Application GA940031 submitted for Phase I, Grading (98.3 acres) of the site.
August, 1994	-	Initial Study completed and Environmental Impact Report Determination Letter is issued.
August 11, 1994	-	Letter of Appeal filed with County.
November, 1994	-	Appeal Hearing postponed to January 7, 1995.
January 31, 1995	-	Applicant withdraws appeal. Planning Commission directs applicant to develop a more compatible project in response to public testimony, staff concerns, and Planning Commission's direction.
July 27, 1995	-	Revised 318-unit Site Development Plan, zone change and area plan submitted to County of Orange.
August 11, 1995	-	Notice of Preparation circulated for EIR 561
October 17, 1995	-	Screencheck Draft EIR 561 submitted to OCPDS for review.
July 30, 1996	-	Orange County Planning commission recommended EIR 561 for certification and recommended applications for Vesting Tentative Tract Map No. 15230, area plan 95-7 and zone change 95.5 be denied.
October 22, 1996	-	Board of Supervisors denied project and did not certify EIR 561.
December 3, 1996	-	Applicant submitted application for Phase 1 Grading Plan for 705 unit Tract 10692 (GA960048).
December 16, 1996	-	EMA determined that a Subsequent EIR is required to evaluate the effects of the

grading application.

December 24, 1996 - Notice of Preparation issued for Subsequent DEIR 566.

February 6, 1997 - Notice of Preparation re-issued for Subsequent DEIR 566.

2.5 MATRIX OF PROJECT APPROVALS

All relevant actions, responsible agencies and decision making bodies which have discretionary or advisory authority over the proposed project are shown in Appendix A. In addition to the County of Orange, the following agencies have regulatory authority over various aspects of the proposed project:

- U.S. Army Corps of Engineers
- U.S. Fish & Wildlife Service
- California Department of Fish & Game
- California Regional Water Quality Control Board
- South Coast Air Quality Management District

2.6 RELATED PROJECTS

The California Environmental Quality Act (CEQA) requires that all EIRs consider the environmental impacts of a project, along with the impacts from other projects in the vicinity These impacts, referred to as cumulative impacts, are defined as the "effects of two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts. The discussion should include either a list of past, present and reasonably anticipated future projects producing related or cumulative impacts or a summary of projections contained in an adopted General Plan or related planning document that is designed to evaluate regional or areawide conditions." (CEQA, Section 15355).

The County has determined that one related project (Live Oak Plaza, PA 960095) has been identified within the Foothill-Trabuco Specific Plan which would contribute to cumulative impacts. In the surrounding area, the following related projects have been identified. Exhibit 1 identifies the location of these related projects.

- Portola Hills Planned Community Buildout
- PA 11 GPA - 625 du - City of Mission Viejo

2.7 AREAS OF CONTROVERSY

Several potential areas of controversy were identified by NOP response letters. Following is a listing of these areas of controversy and the location where these are evaluated and analyzed in this DEIR:

- Land Use/ Aesthetic Compatibility - Section 4.8
- Foothill-Trabuco Specific Plan Conformance - Land Use, Section 4.1

- Emergency Access Requirements - Public Services, Section 4.13
- Wildlife Corridor Design Width - Biological Resources, Section 4.8
- Project Specific Affordable Housing Requirements - Land Use/Housing, Section 4.1
- EIR Preparation Process/Procedures - Introduction, Section 2.0
- Loss of Wildlife Habitat/NCCP Reserve, Section 4.7
- Geophysical Stability, Section 4.2
- Traffic/ Circulation, Section 4.4

2.8 MITIGATION MEASURE STRUCTURE

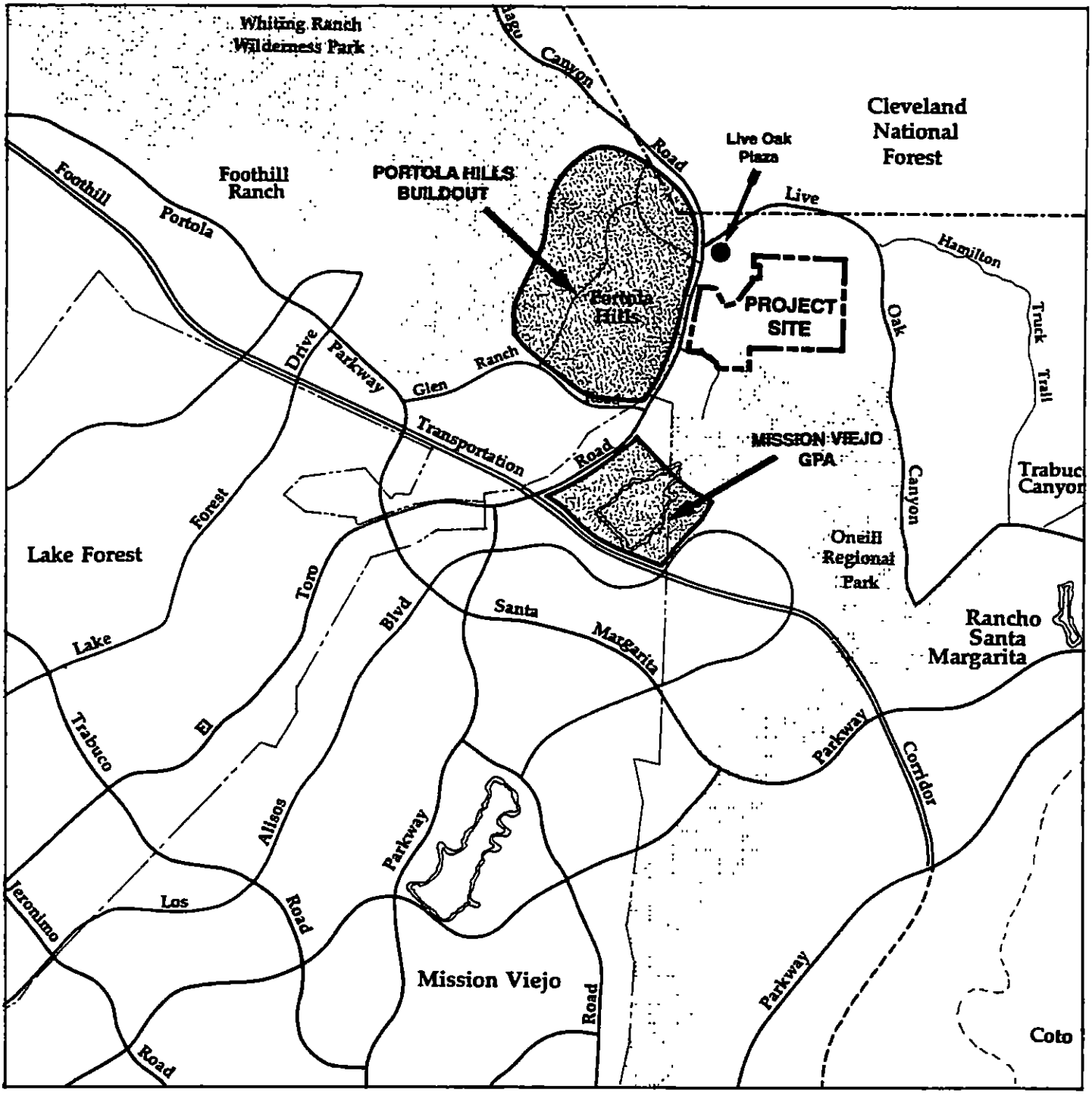
Mitigation measures identified in Sections 1.0, 4.0 and 7.0 of this Draft Subsequent EIR are included in one or more of the following three categories, 1) Project Design Features (PDF), 2) Standard County Conditions (SC), or 3) Additional Mitigation Measures (AM). Each mitigation measure is identified with one of these acronyms. All mitigation measures outlined in Sections 4.0 and 7.0 are also included in the Mitigation Monitoring Program, set forth in Section 9.0 of the DEIR.

The environmental analyses and evaluations contained in this document are largely informational, and not prescriptive in nature in that mitigation measures which would alter features of the final recorded tract map cannot be implemented to reduce all project impacts to a level of insignificance. This is attributable primarily to the physical limitations of the site and the inability to deviate from the final recorded tract map. Accordingly, any findings of significant impact must be offset through the issuance of a Statement of Overriding Considerations.

Project Design Features

Specific design features of the project proposed by the applicant to reduce potential environmental impacts are referred to as project design features (PDF). The PDFs that apply to each environmental topic are listed in each sub-section of Section 4.0. These features provide mitigation through avoidance, reduction or offset of impacts. Because these features are part of the project design, they do not constitute additional mitigation measures, but are in effect mitigation through project design. In order to ensure accountability for implementation, the PDFs specify timing mechanisms, responsible parties, and other related information, as appropriate.

It should be noted, environmental documentation for previously approved Tract Map No. 10692 and/or the Foothill-Trabuco Specific Plan may have identified relevant mitigation measures and conditions of approval to reduce and/or avoid potential significant impacts. These mitigation measures and other conditions of approval imposed in connection with prior approvals have been incorporated into the design of the proposed project as PDFs.



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS

Scale:

Source: *Saddleback Meadows - Draft Subsequent EIR No. 566*

N

Related Project Map

EXHIBIT NO. 1

2-11.

When a significant impact occurs, and the PDF does not mitigate the impact to a level of insignificance, the EIR will identify that impact as being significant and, in addition to the PDF, will either 1) identify mitigation measures proposed by the County to mitigate the impact; 2) note that responsibility for mitigation of this impact rests with another Responsible or Trustee Agency; or 3) identify the significant impact as an "unavoidable adverse impact, which will necessitate the adoption of a Statement of Overriding Considerations if the project is approved."

The Orange County PDS will ensure compliance with all PDFs through its standard procedures for the approval of permits and applications. The Mitigation Monitoring and Reporting Program, which must be adopted with the Final EIR, will include specific implementation components, similar to mitigation measures, for each PDF.

Standard Conditions of Approval and Mitigation Measures

The EIR also lists Standard Conditions of Approval and additional project specific mitigation measures for reduction of project impacts. Standard Conditions (SC) include project requirements mandated by the County of Orange and State and federal agencies with authorization for environmental regulations. Standard Conditions typically include project compliance with the County of Orange Standard Conditions of Approval, the Uniform Building Code, South Coast Air Quality Management District, school fees, Alquist-Priolo Act, requirements and other standard measures for hillside residential development projects, various development fees including fire, sheriff, schools, parks and transportation.

Additional Mitigation Measures

Project specific mitigation measures are prescribed as necessary to further mitigate project impacts beyond the mitigation provided by the PDFs and applicable Standard Conditions. For those impacts with no County Standard Conditions, project specific mitigation measures, will be imposed to reduce project impacts to the maximum extent possible. Each environmental factor evaluated in Section 4.0 provides a conclusion as to whether or not the project impacts are mitigated to below the level of significance with the combination of available PDFs, Standard Conditions and additional mitigation measures.

2.9 EFFECTS FOUND NOT TO BE SIGNIFICANT

As required in CEQA Guidelines, Section 15128, this Subsequent EIR identifies effects of the project determined to be insignificant or less than significant. The Initial Study conducted by the County of Orange (included in Appendix A) determined that certain environmental effects, including secondary effects, of the project will not be significant. Therefore, they are not discussed in detail in this EIR. The effects found not to be significant or less than significant in the Initial Study are summarized below, and briefly discussed in each topical section. All other environmental topics required by CEQA are analyzed for potential impacts in the EIR.

Population

The proposed project is not expected to cumulatively exceed adopted regional or local population projections. It will not induce substantial growth in the immediate area either directly or indirectly, nor extend major infrastructure into a previously undeveloped area. The project would not displace existing housing.

Energy and Mineral Resources

The Saddleback Meadows project site is primarily in a natural state. None of the site's potential mineral resources have been disturbed. Previous EIR Nos. 059, 203 and 531 did not identify energy and/or mineral resources on the site. The Orange County General Plan/Foothill-Trabuco Specific Plan does not designate the site as having a potential for mineral resources.

3.0 PROJECT DESCRIPTION

3.1 GEOPHYSICAL SETTING

The project site is situated on 222.23 acres of vacant land located on the easterly side of El Toro Road, approximately ½-mile south of the intersection of Santiago Canyon Road/El Toro Road and Live Oak Canyon Road, in east-central unincorporated Orange County. The incorporated cities of Mission Viejo and Lake Forest lie approximately three (3) miles to the south and southwest, with the Cleveland National Forest boundary located approximately ½-mile north of the project site. Aliso Creek is located adjacent to the northwest portion of the project site. In addition, a small strip of County owned land is located between the project site and El Toro Road.

The project site is surrounded by residential development, with the Portola Hills and Foothill Ranch planned communities to the west, the Hidden Ridge/Hidden Hills community and a nursery to the south, and scattered low-density residential uses to the north and east. O'Neill Regional Park is located adjacent to the southerly boundary of the site with St. Michael's Abbey immediately to the northwest and the Ramakrishna Monastery located immediately to the southeast. The project's location in relationship to the surrounding land uses is shown in Exhibit 2. Regional location and vicinity maps are shown in Exhibits 2 and 4 respectively. Regional aerial photographs are shown in Exhibit 3 and aerial site photographs in Exhibit 5. Onsite elevations range from 1,000 feet near El Toro Road to 1,550 near the eastern portion of the site (see Exhibit 6).

3.2 PROJECT DESCRIPTION

The proposed project would construct the previously approved and Recorded Tract Map 10692. The project was originally approved in December of 1979 and recorded in December of 1988. The original project has been re-analyzed in consideration of changed circumstances and new information on environmental significance not previously considered.

The proposed project, is consistent with Tract Map No. 10692, and proposes the phased development of 705 manufactured single family housing units and a 1.5-acre, neighborhood commercial center and associated infrastructure, on a 222.23-acre site on the easterly side of El Toro Road. The gross residential density is 3.17 du/ac, with minimum lot sizes of 2,630 square feet.

The following Plans have ben approved associated with Recorded Tract Map 10692·

- Tract 10692 Record of Survey 5/88
- Improvement Plans for Widening of El Toro Road - Tract 10692 - Approved 11/17/88 Encroachment Permit No. 88-14451-RT
- Preliminary Grading Plan for Tract 10692 - Prepared 4/1/94, Revised 1/12/95 (Phase Only)
- OCPDS Plans for construction of Aliso Creek Channel - Facility J01 - 11/16/88

- OCPDS - Private Storm Drain Improvements for Tract 10692 - 11/15/88 Encroachment Permit No. 88-00728-FC, tributary to Aliso Creek.
- Street Improvement Plans
  - Recorded Streets - (Quiet Creek Terrace, Grassland Terrace, Oak Grove Terrace, Scenic Canyon Terrace, Indian Summit, Quail Run, Priory, Wildflower and Ridgecrest Way.

The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor Specific Plan approximately ½-mile south of the El Toro Road/Live Oak Canyon Road intersection. The project site is designated as "Bridlewood Residential District" in the Foothill-Trabuco Specific Plan and "1B, Suburban residential, in the Countywide General Plan Land Use Element. Project site zoning is "S", Specific Plan.

As discussed previously, Tract Map 10692 was recorded (after a series of extensions) in December of 1988. Since project approval preceded the adoption of the Foothill-Trabuco Specific Plan (FTSP) by several years, the project is exempt from its goals, objectives and policies in relation to the area designated as "Bridlewood Residential District", as per the FTSP itself. The Foothill Trabuco Specific Plan references this project as follows:

As long as the site is developed in accordance with the existing Saddleback Meadows Planned Community zoning (Zone Change 84-3P) and Recorded tract 10692, the project site shall be exempt from all of the Regulations and Guidelines included in this Specific Plan other than those provided for by this District.[1] (Emphasis added)

The Bridlewood Residential District is established to recognize the existing zoning and tract map approvals for the Bridlewood (Saddleback Meadows) property which permit the development of 705 manufactured homes on the site. While the Board of Supervisors does not believe that these approvals are consistent with the Goals and Objectives of the Specific Plan, the property owner has recently declared bankruptcy. A legal stay precludes the Board of Supervisors from taking any action related to the property that would affect its value. However, the provisions of this District require that the Specific Plan be amended to determine an appropriate density cap and District Regulations for the property in the event that it cannot be developed in a manner which is consistent with the approved zoning and tract map.

Prior to the most recent submittal of a grading permit application for Tract Map 10692, the project site was proposed for 318 single-family dwelling units. Proposed FEIR 561 was prepared to evaluate environmental impacts resulting with this development proposal. It is noted in DEIR 561 that though the 318-unit project was identified as "environmentally superior" to the 705 unit project currently being proposed, the 318-unit proposal was denied. No action was taken to certify Proposed FEIR 561 at the time of the denial of the 318 unit project. Furthermore, EIR 561 identified the currently proposed 705-unit project (Alternative No. 2 in Proposed FEIR 561) as one of two environmentally inferior alternatives considered.

The project site can be presently serviced by sewer lines and treatment capacity predicated on the density authorized by Recorded Tract Map 10692.

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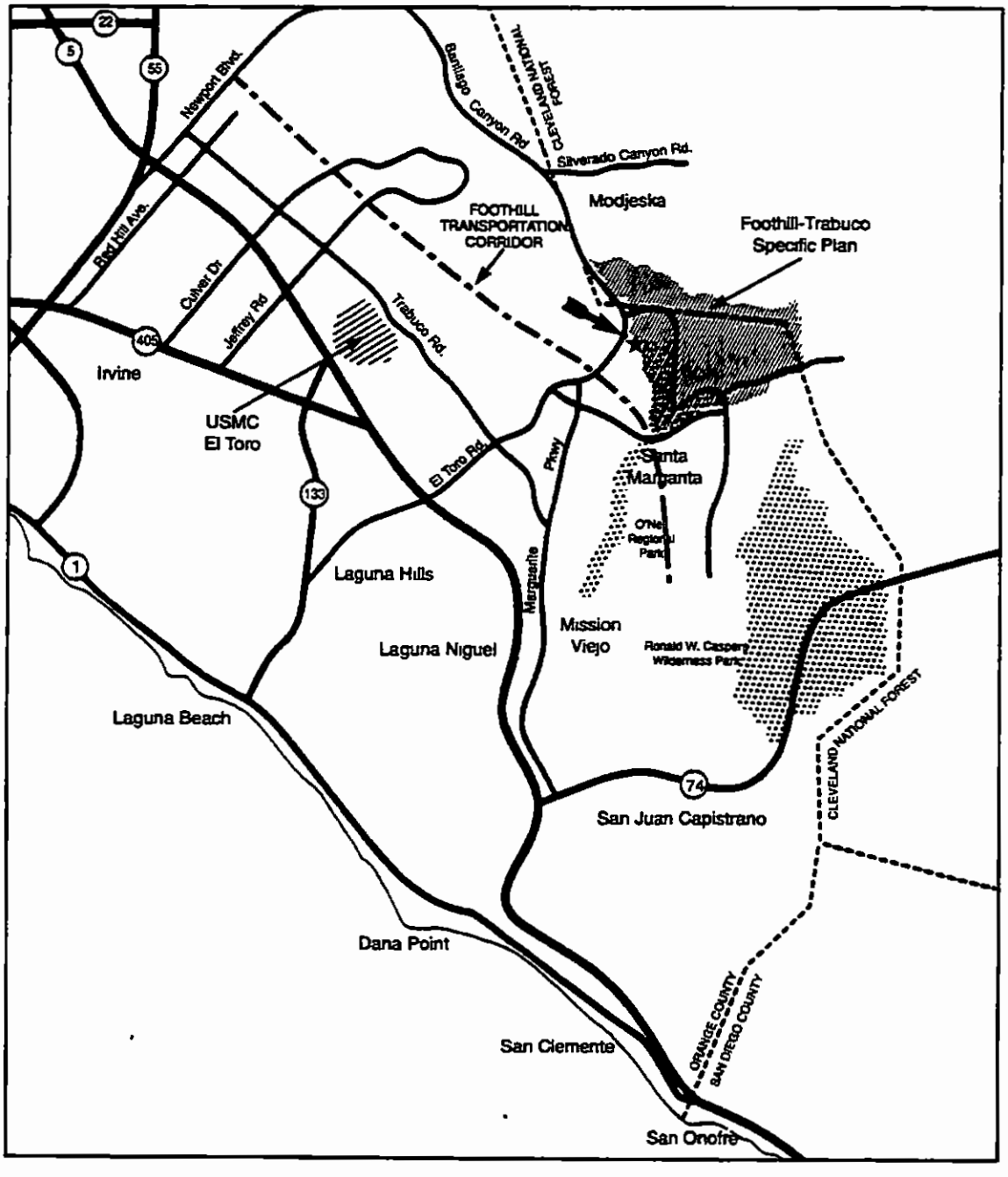
[1] *Foothill-Trabuco Specific Plan p. III-20*



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Regional Location Map

EXHIBIT No. 2

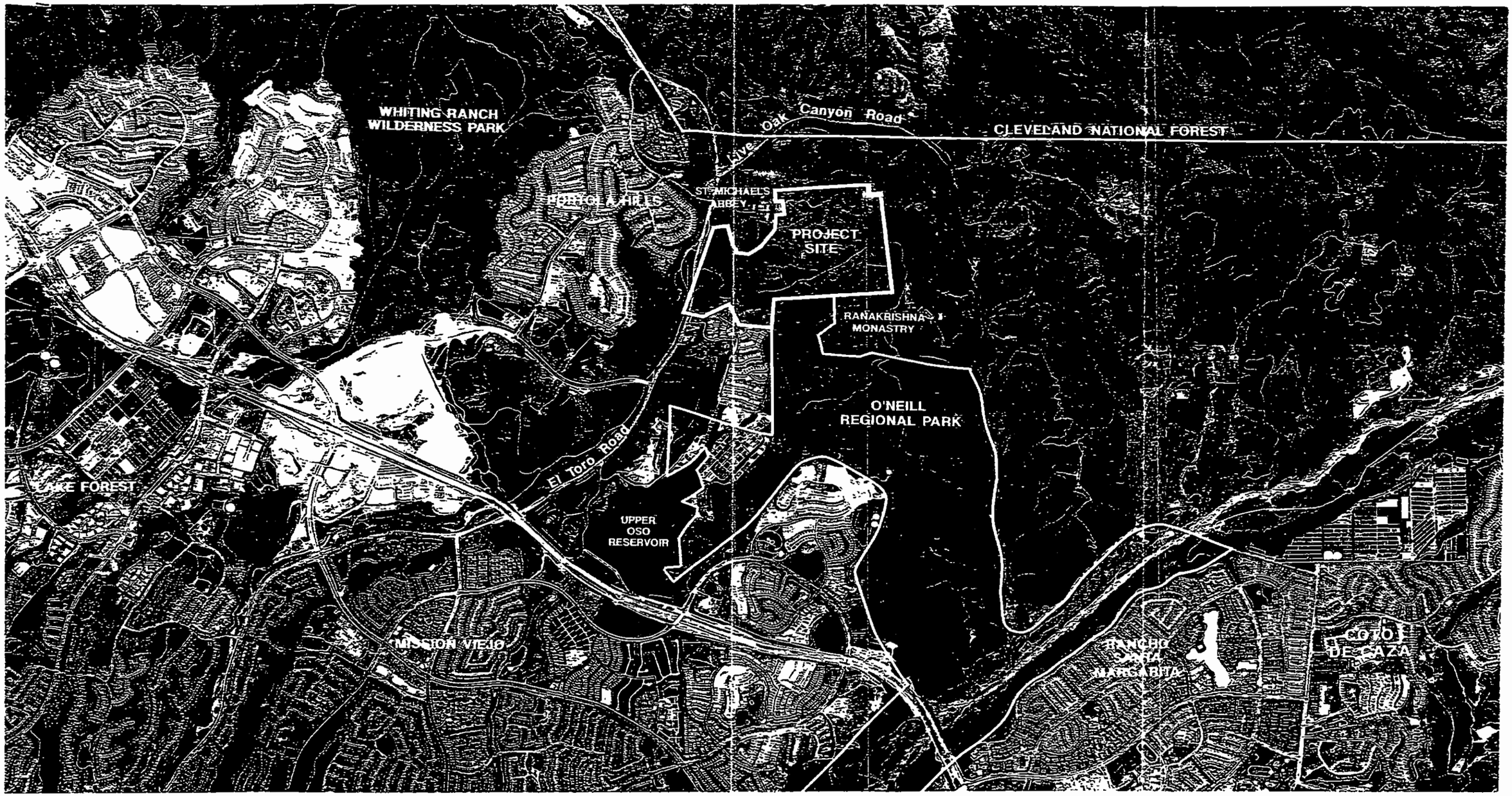
URBAN VISION

County of Orange P&DS

Scale:

Source:

N



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: Not to Scale
Source: N/A

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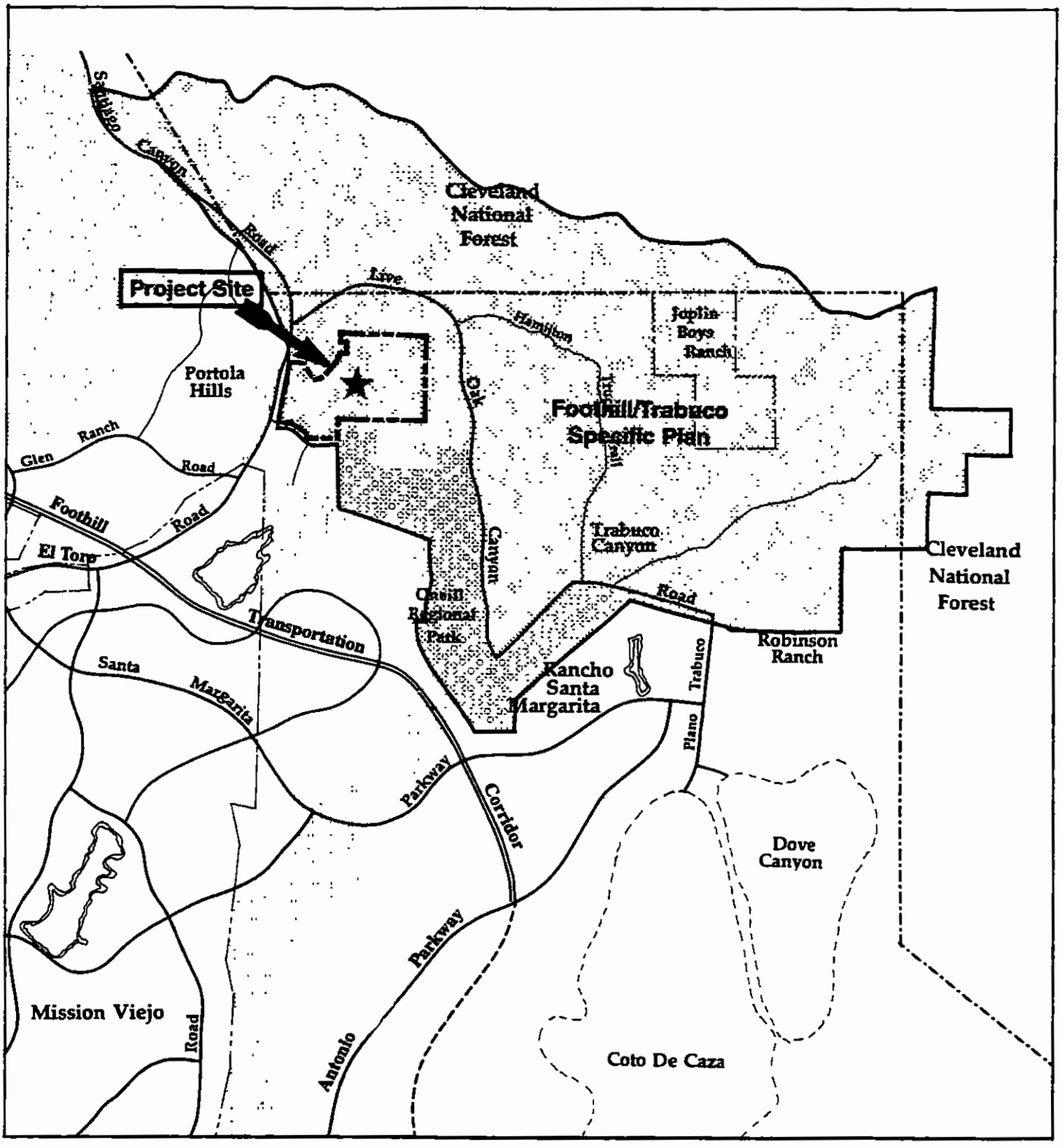
Regional Aerial Photograph

EXHIBIT No. 3



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Vicinity Map

EXHIBIT No. 4

URBAN VISION

County of Orange P&DS

Scale:

Source: *Saddleback Meadows - Draft Subsequent EIR No. 566*

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3-5

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS

Scale: Not to Scale

Source: N/A

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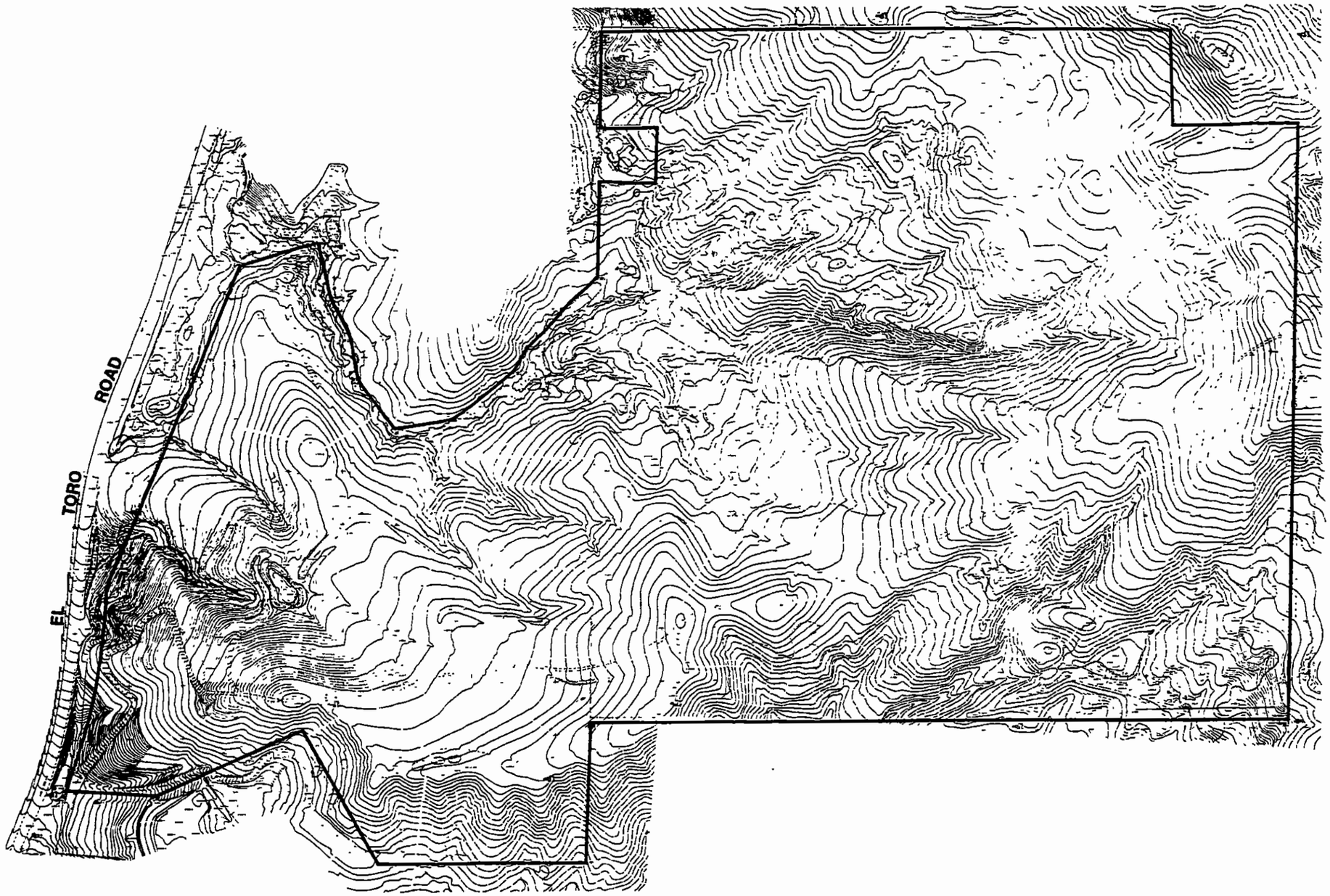
Project Site Aerial Photograph

EXHIBIT No. 5



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION
County of Orange P&DS
Scale: 1"=400'
Source: N/A

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Existing Topography

EXHIBIT No. 6

It is therefore understood that the environmental analyses and evaluations contained in this document are largely informational, and not prescriptive in nature in that mitigation measures which would alter features of the final recorded tract map can not be implemented to reduce all project impacts to a level of insignificance. This is attributable primarily to the physical limitations of the site and the inability to deviate from the final recorded tract map. Accordingly, any findings of significant impacts must be offset through the issuance of a Statement of Overriding Considerations. Additionally, to the extent that the County included Tentative Tract Map 10692 in its determination to provide adequate affordable housing in 1979, the removal of the mandated Inclusionary Housing Program (IHP) requirements could undermine the County-wide calculations used to eliminate the affordable housing mandate.

Project Features

The proposed project, consistent with Final Tract Map 10692, would construct 705 manufactured single-family detached dwelling units on minimum 2,630 square foot lots as shown in Exhibit 7. Gross density would be 3.17 du/ac.

Project implementation would directly affect 156.55 acres of the project site, not including remedial grading and fuel modification requirements. Total development footprint area would affect 86 percent or about 191.39 acres of the project site. In addition to onsite grading 19.77 acres of offsite area would be used for access road construction and remedial grading, fuel modifications, water tank site, creek channel and slope area. A total of 2.6 million cubic yards of conventional grading and 8.9 million cubic yards of remedial grading would be required to implement the project. Areas disturbed by remedial grading activities, outside of lots/manufactured slope, are proposed to be landscaped with native-compatible plant materials. Project features are summarized in Table 4.

Thirty-nine percent (39%) of the project site is proposed to remain in open space, including community slope area. In addition to the residential component, the project also proposes commercial uses; eight private park sites; regional equestrian, hiking, and bicycle trail connections; and construction of a water tank site dedicated to and accepted by, the Trabuco Canyon Water District. Table 4 presents project land uses, by acreages and percentages. Proposed bicycle trail would be located along El Toro Road and would connect with the existing underground crossing Hiking and equestrian trails would be provided along the southern perimeter, connecting with the neighboring O'Neill Regional Park. The equestrian trail would also continue along El Toro Road. It is expected that these trails would ultimately connect with the County's regional system. A 1.5-acre commercial pad would be located along El Toro Road near Valley Vista Way.

As part of the proposed project, the portion of Aliso Creek adjacent to the project site will be fully improved with a concrete trapezonal channel and its associated maintenance road, in accordance with improvement plans prepared for Recorded Tract Map No. 10692.

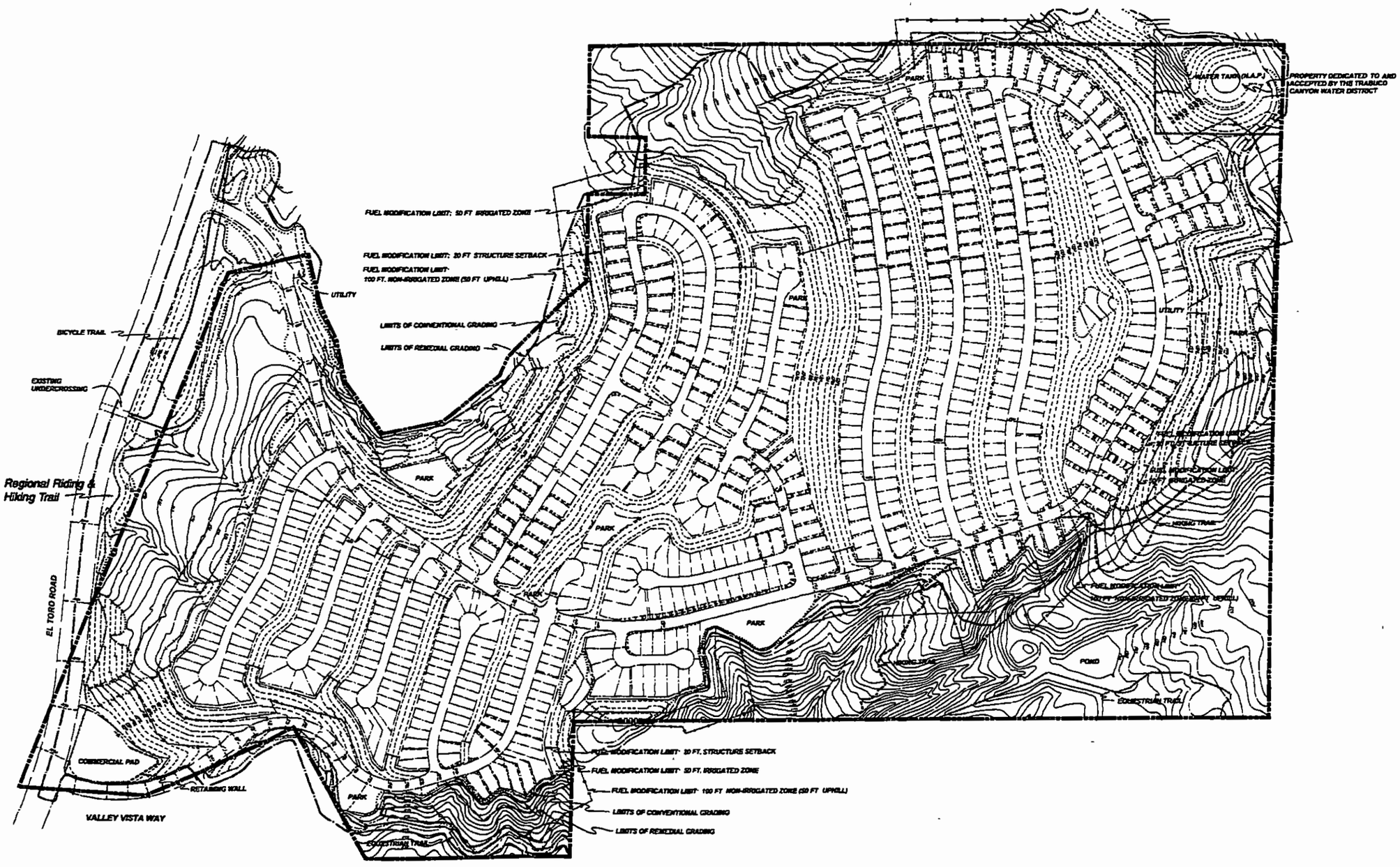
A 1.4 million gallon water tank and associated access road is proposed offsite adjacent to the northeast corner of the project site to provide water service to the proposed project. The water tank site is currently owned by the Trabuco Canyon Water District. This water tank site was dedicated under the Recorded Tract Map 10692. The water tank is proposed to be 29-feet tall, bermed, and

painted a complimentary color to the surrounding landscape. The water tank would be constructed by Trabuco Canyon Water District.

Project access will be off of El Toro Road; a second gated access at Valley Vista Way will also be provided. The entry street will be designed as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The Collector cross-section should be maintained for approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway. The entry street will be designed with a traffic signal and a southbound left-turn pocket and northbound right-turn lane. Onsite circulation is proposed with a primary spine street and a series of cul-de-sacs.

Table 4
LAND USE SUMMARY TABLE

Onsite Land use	Acres	% of site
Residential Lots	69.11	31.1
Private Streets	22.23	10.0
Park Sites	3.67	1.7
Equestrian Trails	0.85	0.4
Hiking Trails	0.13	0.1
Manufactured Slopes	57.26	25.8
Remedial Grading (outside of lots/slopes)	29.11	13.0
Fuel Mod. Zone (outside of grading limits)	5.73	2.6
Undisturbed Open Space	31.38	14.0
El Toro Road R.O.W.	1.28	0.6
Commercial Lot	1.48	0.7
Total Onsite	**222.23**	**100.0**
Total Onsite Impact Area	**191.39**	**86.1**
Offsite land Use	**Acres**	
El Toro Road R.O W.	2.60	
Aliso Creek Channel, Maintenance Road and Bike Trail	1.86	
Private Street	0.60	
Water Tank Site	3.83	
Equestrian Trails	0.52	
Bike Trail	--	
Manufactured Slope	4.84	
Fuel Modification Zone (outside of grading limits)	2.11	
Remedial Grading (outside of slopes)	3.41	
Total Offsite	**19.77**	
Total Impact Area (onsite/offsite)	**211.16**	



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

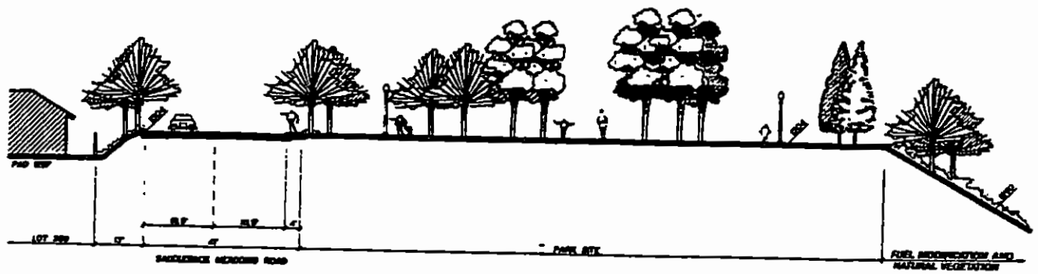
URBAN VISION

County of Orange P&DS

Scale: 1"=400'
Source: N/A

N

Site Plan EXHIBIT No. 7



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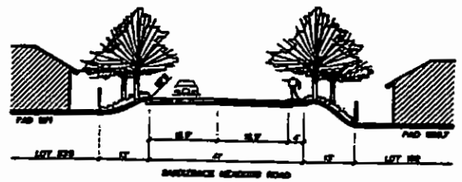

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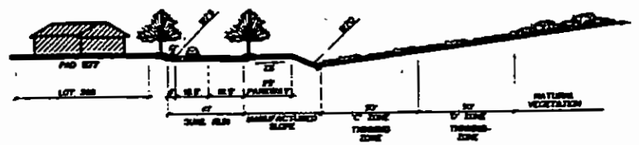
SECTION CC 1"=20'-0"



SECTION DD 1"=20'-0"

SECTION EE 1"=20'-0"

SECTION FF 1"=20'-0"

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

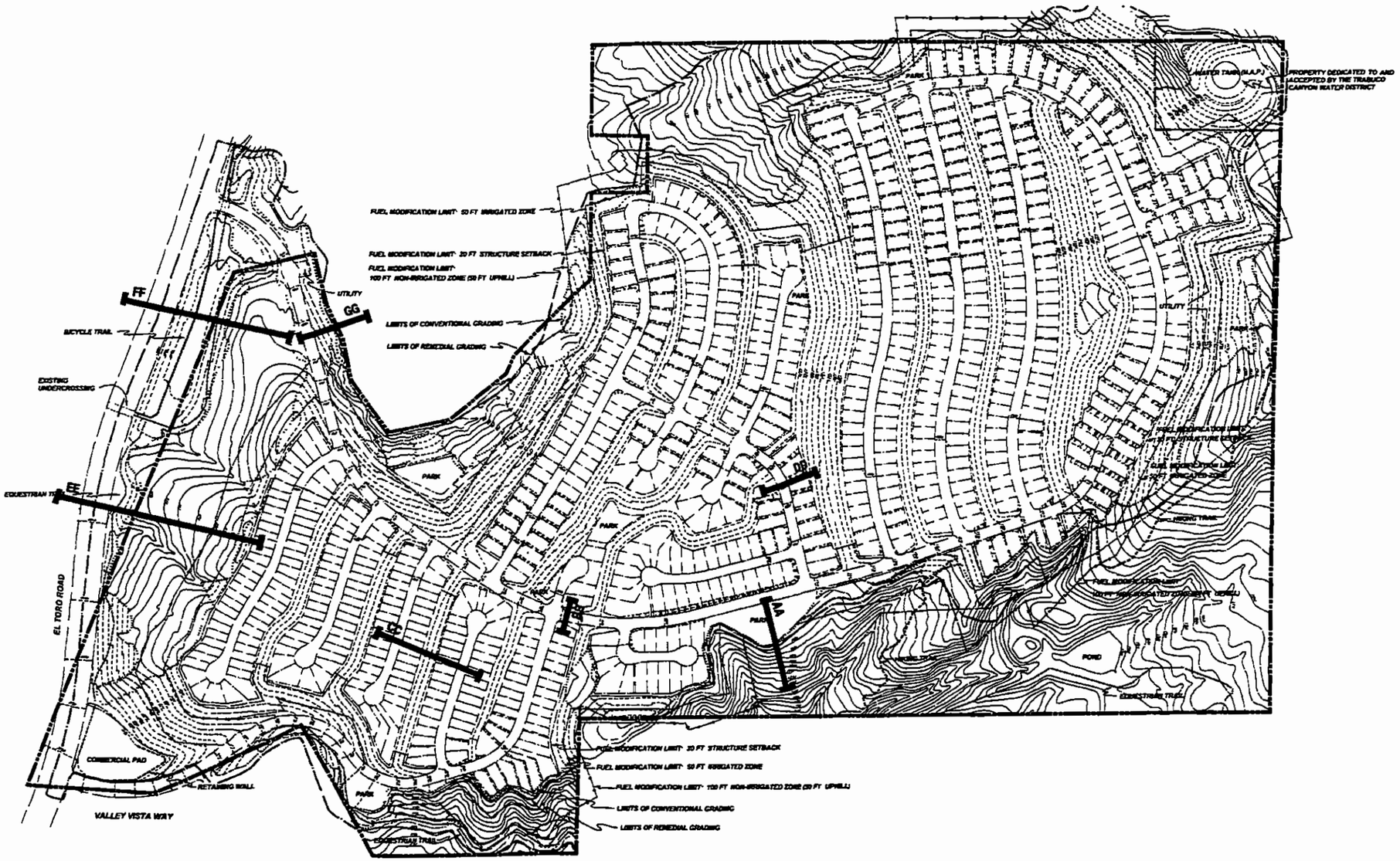
County of Orange P&DS

Scale: Not to Scale
Source: N/A

N

Landscape Cross Sections

EXHIBIT No. 8



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS

Scale: Not to Scale
Source: N/A

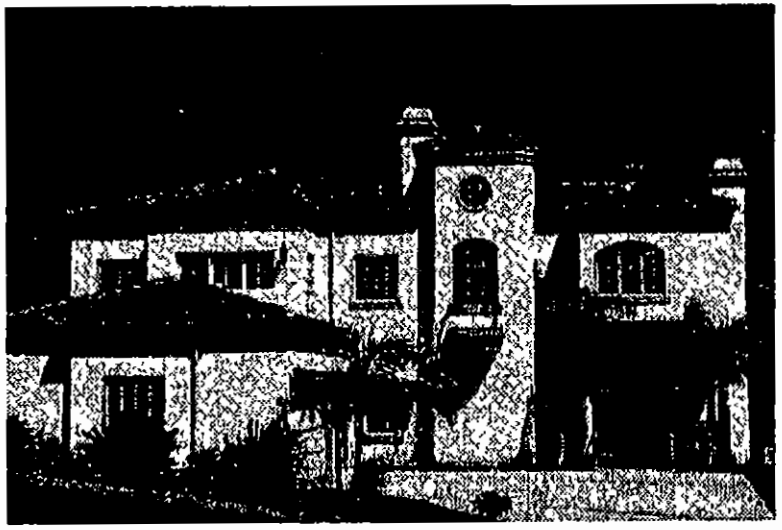
N

Landscape Cross Section Key Map

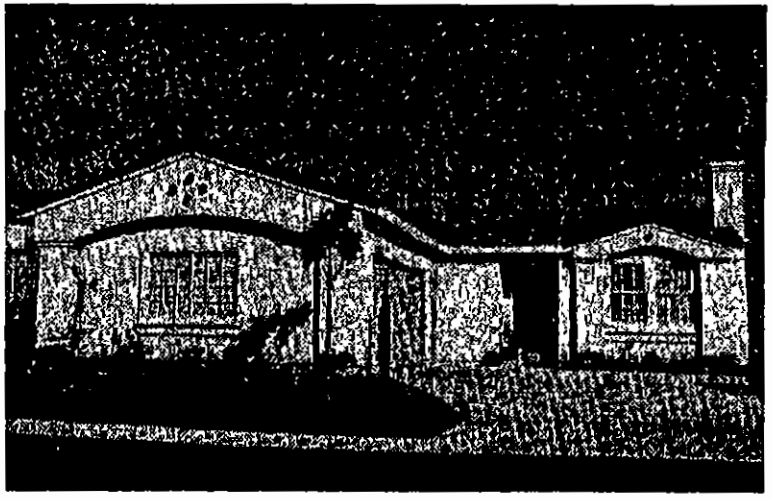
EXHIBIT No. 9

Manufactured Home No. 1

Manufactured Home No. 2



Manufactured Home No. 3



Manufactured Home No. 4

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Conceptual Residential Manufactured Home Elevations

EXHIBIT No. 10

URBAN VISION

County of Orange P&DS

Scale: Not to Scale

Source: N/A

Discretionary Actions

Approval of a grading plan and issuance of a grading permit are required.

The following discretionary permits and clearances are required prior to project implementation:

Agency		Permit
• California Department of Fish & Game	-	1603 Streambed Alteration Agreement
• U.S. Fish & Wildlife Service	-	Section 7 Consultation/4(d) Rule
• U.S. Army Corps of Engineers	-	Section 404 Permit Action
• California Regional Water Quality Control Board	-	NPDES Construction Stormwater Discharge Permit
• California Regional Water Quality Control Board	-	Section 401 Water Quality Certification
• South Coast Air Quality Management District	-	Authority to Construct/Operate Permit

3.3 DEVELOPMENT OBJECTIVES

The following objectives have been established for the proposed project to serve as a basis for comparing alternative development plans and for the evaluation of associated environmental impacts.

- Develop a residential community which implements recorded Tract Map No. 10692 for the construction of 705 manufactured housing units.

- Minimize visual affects on surrounding properties to the extent feasible given the constraints of Recorded Tract Map No. 10692, through the provision of perimeter open space lots and landscape screening.

- Remediate and provide geotechnical stabilization for onsite landslide areas affecting the proposed development area.

- Implement the policies contained in the General Plan and the Air Quality Management Plan to the extent feasible given the constraints of Recorded Tract Map No. 10692.

- Minimize adverse effects on surrounding properties, O'Neill Regional Park and Aliso Creek through the provision of buffer/setback zones and design features, to the extent feasible given the constraints of Recorded Tract Map No. 10692.

- Conduct preliminary grading and stabilization for the ultimate El Toro Road right of way.

- Create a fire safe community through incorporation of an area-wide fuel modification program.

- Provide trail connections to the regional riding and hiking trail system, to the extent feasible given

the constraints of Recorded Tract Map No. 10692.

3.4 PROJECT PHASING

Preliminary project grading is proposed to be implemented in one phase. Project grading would require approximately 18 months[2] to complete. All grading, including remedial grading will be completed in one phase and be balanced onsite. Residential units are planned to be constructed in a series of phases based on market demand. The water tank will be completed prior to Phase I models. Project buildout is estimated to occur approximately five (5) years after completion of grading. Primary infrastructure (roads, water/sewer mains, and utility stub-outs) will be completed in Phase I. Resource enhancement and riding/hiking trail construction will be completed prior to the final phase of the proposed project.

Table 5
SURROUNDING PROJECT COMPARISON SUMMARY

Feature	Proposed Project	Portola Hills	Hidden Hills Hidden Ridge
Acreage	222.23	1,399	74
Dwelling Units	705	2,818	230
Minimum Lot Size	2,630 sf	3,000 sf	5,000 sf
% Open Space	14%	39%	31%
Gross Density	3.17 du/ac	2.0 du/ac	3.1 du/ac
Total Grading/Lot (conventional and remedial)	16,312 cy	7,450 cy	5,850 cy
Wildlife Corridor	No	No	No
Regional Trail Connections	Yes	Yes	Yes

[2] *Based on an average of 30,000 cubic yards/day. 21 work days per month.*

4.0 EXISTING CONDITIONS, PROJECT AND CUMULATIVE IMPACTS, MITIGATION MEASURES, AND LEVEL OF SIGNIFICANCE AFTER MITIGATION

4.1 LAND USE/HOUSING

4.1.1 EXISTING ENVIRONMENTAL SETTING

Existing and Planned Land Use

The project site is currently functioning as natural open space with the exception of the remains of an abandoned ranch structure, geotechnical investigation and cattle grazing activities. A mobile home is located onsite in support of the cattle grazing. Approximately 50 percent of the project site is currently being utilized for cattle grazing activities. Existing surrounding land uses are shown in Exhibit 14 and summarized in Table 6.

Table 6
SURROUNDING LAND USE SUMMARY

Direction	Land Use
North	St. Michael's Abbey, Cooks Corner, Natural Open Space, Cleveland National Forest, Live Oak Plaza, and low density residential.
South	Hidden Hills and Hidden Ridge Developments, O'Neill Park, and Ramakrishna Monastery
East	Low Density Single-Family Residential, Church and Natural Open Space
West	Portola Hills Planned Community and Aliso Creek

North

St. Michael's Abbey is located on a 35-acre parcel north and west of the project site and contains the following facilities: a church, prep school/dormitory, abbey, refectory, library, a swimming pool, small sports field and associated parking areas. In addition to Abbey facilities, a vacant single-family dwelling unit is located in the eastern portion of the property. The abbey was constructed in 1960 and opened as a prep school in 1961. The prep school serves grades 9-12 and has a current enrollment of approximately 75 students.[1]

[1] *Personal communication, Farther Vincent - St. Michael's Abbey - 9/8/95.*

Cook's Corner is located at the northeast corner of the intersection of El Toro Road, Santiago Canyon Road, and Live Oak Canyon Road. Cook's Corner is a popular restaurant/bar attracting large crowds on the weekends.

Directly north of the project site, south of Cleveland National Forest, is private property referred to as the Edgar 4-S Ranch South. The property is primarily natural open space, with scattered large lot single-family dwellings. Live Oak Plaza is also located to the north.

South

To the south land uses include the existing Hidden Ridge/Hidden Hills development, O'Neill Regional Park and the Ramakrishna Monastery. Hidden Ridge/Hidden Hills contains 230 residential detached and attached dwelling units on 74 acres. Gross residential density is 3.1 dwelling units/acre. The Hidden Ridge/Hidden Hills community is not included in the Foothill-Trabuco Specific Plan.

O'Neill Regional Park was first opened in 1948 and provides a variety of recreational opportunities including active day use areas, overnight camping, wilderness hiking areas and interpretive programs. The park encompasses approximately 2,000 acres, with the northern third of the acreage located within the Foothill-Trabuco Specific Plan. .The portion of the park adjacent to the project site is designated as wilderness area and contains the Live Oak Trail, providing for connection from park headquarters to the Aliso Creek Trail and points west.

The Ramakrishna Monastery is located adjacent to the southeast portion of the project site and was constructed in 1942. (Note: Building constructed in 1942, the Ramakrishna's took over the site in 1946.) The monastery facilities include a series of structures for worship, residence area, a kitchen, and storage facilities. Additional features include shrine areas, hiking trails, a small reservoir, gardens and parking area. A portion of the views of the project site from the monastery are screened by mature pine and oak trees.

East

The area east of the site is visually screened by a major ridgeline and consists of natural open space, scattered single-family dwelling units and a church. Access to this area is provided off of Live Oak Canyon Road.

West

West of the project site is the Portola Hills Planned Community, of which the residential component is primarily built out. Ultimately the community will have 2,200 detached and attached dwelling units, a County fire station, elementary school, and natural open space. The gross residential density is 1.6 dwelling units per acre. The Portola Hills Planned Community is not located within the Foothill-Trabuco Specific Plan.

Table 5 in Section 3.2 contains a comparative statistical analysis of existing surrounding developments. As shown, both Portola Hills and Hidden Hills/Ridge have a lower gross density than

the proposed project.

In addition, a small strip of County owned land is located between the projects western boundary and El Toro Road.

Orange County General Plan

Land Use Element

The Orange County General Plan Land Use Element (Adopted June, 1982), designates the project site as 1B (Suburban Residential - 0.5 to 18 du/ac). The Community Profile, which is not a part of the General Plan, designates the site as 1.2 low density residential (0.5 to 2.0 du/ac.) In addition to the Land Use Element, the project site is subject to policies contained in the Circulation Element, Housing Element, Public Services and Facilities Element, Noise Element, Recreation and Safety Element.

Housing Element

The Orange County General Plan Housing Element was adopted September 13, 1993 and is a comprehensive statement of broad and specific policies to facilitate development of housing in the County. The project site is located in Regional Statistical Area (RSA) 43-C. RSA 43-C had a 1995 population of 190,700 with a year 2000 population projection of 212,700 (2.3 percent growth). RSA 43-C had a 1995 jobs to housing ratio of 3.80, the highest in the County.

In 1979, the County adopted the Inclusionary Housing Program (IHP), which required developers to provide 25 percent of all new dwellings within the affordable category (i.e., 120 percent or less of median income). In 1983, the IHP was replaced by the Housing Opportunities Program (HOP), which phased out mandatory requirements over a three-year period in favor of voluntary compliance with affordable housing objectives encouraged by County incentives and market forces. Adoption of the HOP did not rescind prior approvals of mandatory affordable housing requirements placed on projects as conditions of approval under the IHP.

A total of 26,907 mandatory affordable units have been required to date as part of General Plan amendments or zone changes. The vast majority of these (24,268) are found within planned communities, with the remainder scattered in conventionally-zoned parcels.

The previously approved and recorded Final Tract Map 10692 was required in the IHP/HOP to provide 66 2/3 percent of total construction as affordable housing (mobile homes). Since it was an original Condition of Approval, this requirement still applies to the project even though the County-mandated affordable housing requirements have since been rescinded.

Foothill-Trabuco Specific Plan

In December 1991, the Foothill-Trabuco Specific Plan was adopted by the County Board of

Supervisors, and replaced the Foothill-Trabuco Feature Plan. This action converted the then policy level Foothill-Trabuco Feature Plan into a regulatory-zoning level Specific Plan. The Specific Plan sets forth goals, policies, land use district regulations, development guidelines, and implementation programs designed to preserve the area's rural character and to guide future development in the Foothill-Trabuco area.

To facilitate planning efforts, three (3) individual planning areas were created within the overall Specific Plan Area: 1) Upper Aliso Planning Area; 2) Trabuco Canyon Planning Area, and 3) Plano Trabuco Planning Area. The project site is located within the Upper Aliso Planning Area and is designated, the "Bridlewood Residential District".

While the Foothill-Trabuco Specific Plan was adopted with the intent of guiding future land use within the Specific Plan area, its approval post-dated that of Tract Map 10692 by some 12 years. Accordingly, the current project, originally approved in 1979, is effectively exempt from the provisions of the Foothill-Trabuco Specific Plan.

The following passages are excerpted from the Land Use Regulations section of the Specific Plan:

> *As long as the site is developed in accordance with the existing Saddleback Meadows Planned Community zoning (Zone Change 84-3P) and Recorded tract 10692, the project site shall be exempt from all of the Regulations and Guidelines included in this Specific Plan other than those provided for by this District.*[2] (Emphasis added)
>
> *The Bridlewood Residential District is established to recognize the existing zoning and tract map approvals for the Bridlewood (Saddleback Meadows) property which permit the development of 705 manufactured homes on the site. While the Board of Supervisors does not believe that these approvals are consistent with the Goals and Objectives of the Specific Plan, the property owner has recently declared bankruptcy. A legal stay precludes the Board of Supervisors from taking any action related to the property that would affect its value. However, the provisions of this District require that the Specific Plan be amended to determine an appropriate density cap and District Regulations for the property in the event that it cannot be developed in a manner which is consistent with the approved zoning and tract map.*[3]

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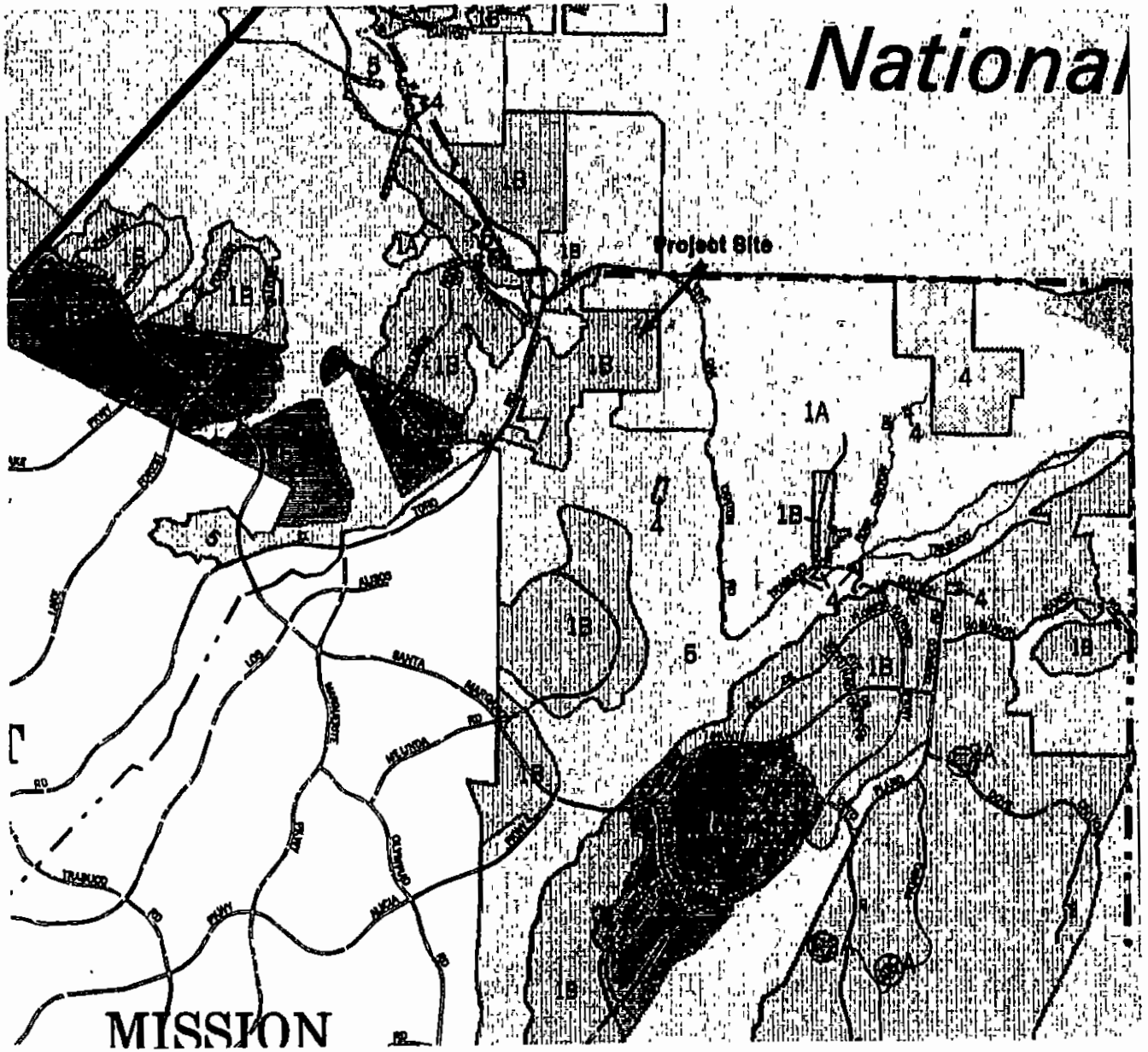
2 *Foothill-Trabuco Specific Plan p. III-20*

3 *Ibid.*



RESIDENTIAL

1A RURAL RESIDENTIAL COMMUNITIES
(.025 – 5 DU /AC)
(COMPONENT III CATEGORY – 1.1)

1B SUBURAN RESIDENTIAL COMMUNITIES
(.5 – 18 DU /AC)
(COMPONENT III CATEGORIES /1.2 – 1.62)

URBAN RESIDENTIAL COMMUNITIES
(18 AND ABOVE DU /AC)
(COMPONENT III CATEGORIES /1.6 – 1.62)

COMMERCIAL

COMMUNITY COMMERICAL
(COMPONENT III CATEGORY /2.1)

REGIONAL COMMERICAL
(COMPONENT III CATEGORY /2.2)

EMPLOYMENT

3 EMPLOYMENT
(COMPONENT III CATEGORIES III/3.1 – 3.2)

PUBLIC FACILITIES

4 PUBLIC FACILITIES
(COMPONENT III CATEGORIES /4.1)

(LS) LANDFILL SITE
(AN OVERLAY DESIGNATION)

OPEN SPACE

5 OPEN SPACE
(COMPONENT III CATEGORIES /5.1 – 5.4)

URBAN ACTIVITY CENTER

URBAN ACTIVITY CENTER
(COMPONENT III CATEGORY /6.1)

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

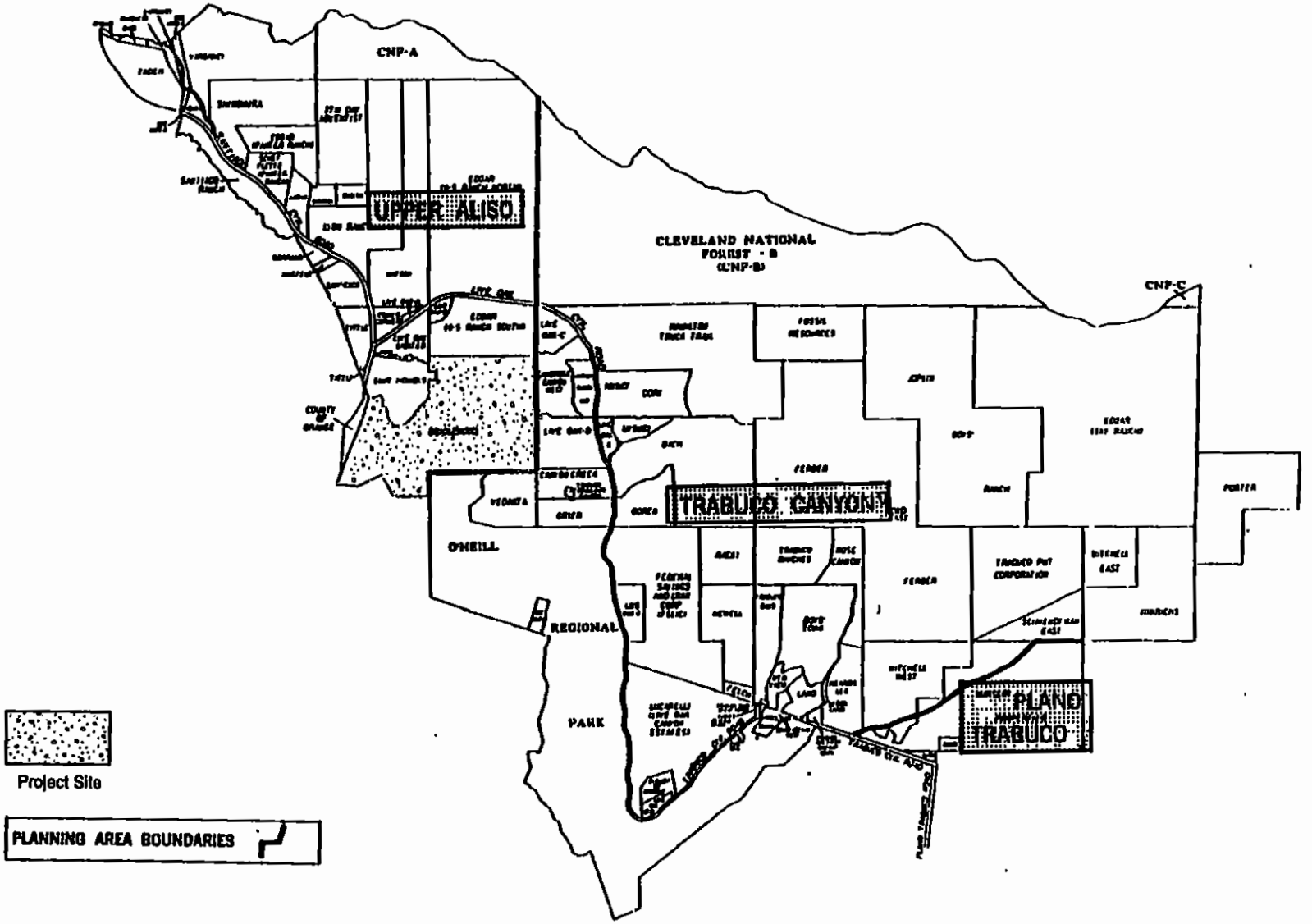
Countywide General Plan Designation

EXHIBIT No. 11

URBAN VISION

County of Orange P&DS
Scale: Not to Scale
Source: N/A

N



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Foothill Trabuco Specific Plan Planning Areas

EXHIBIT No. 12

URBAN VISION

County of Orange P&DS
Scale: 1"=3500'
Source: Foothill/Trabuco Specific Plan

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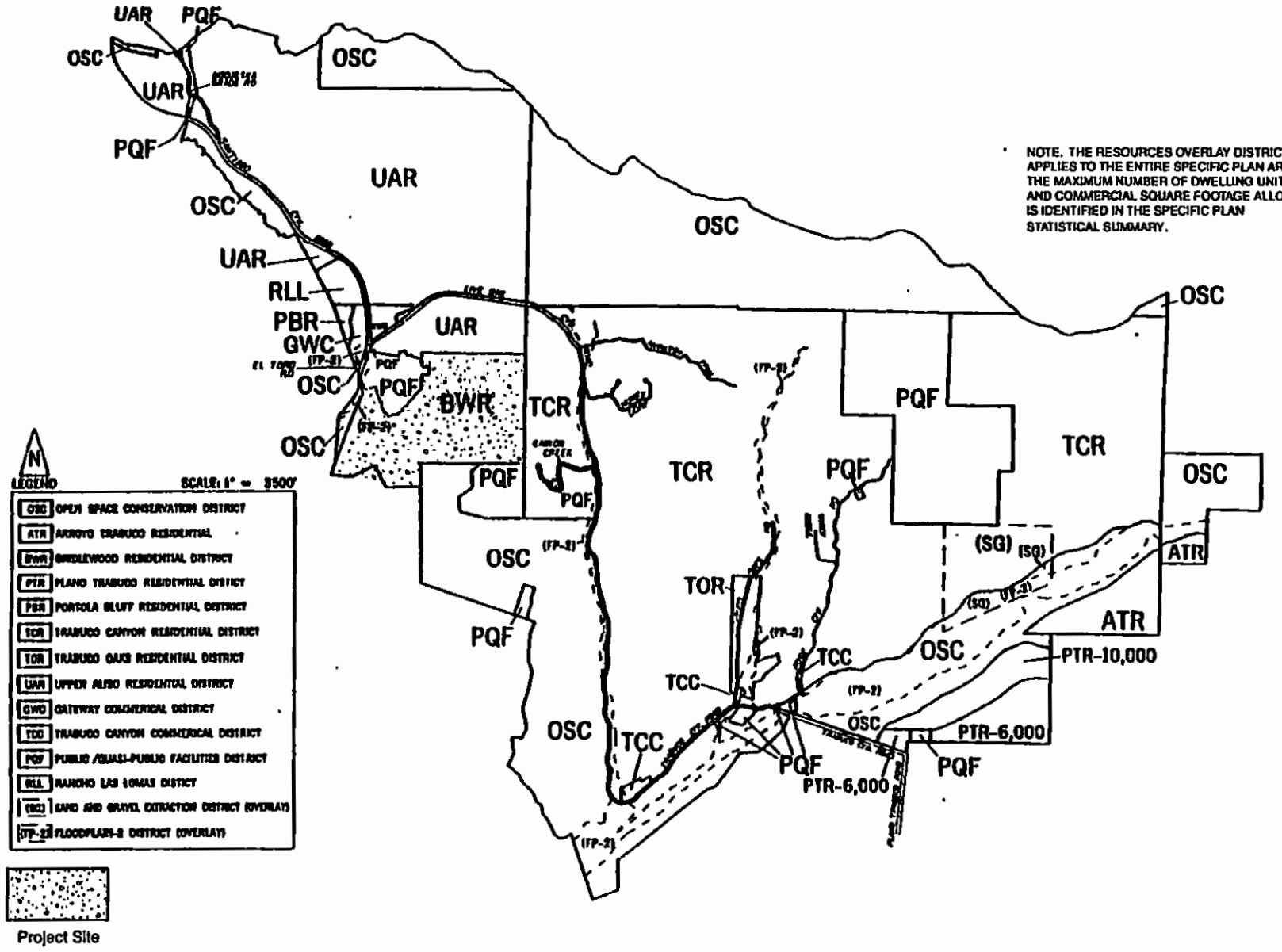


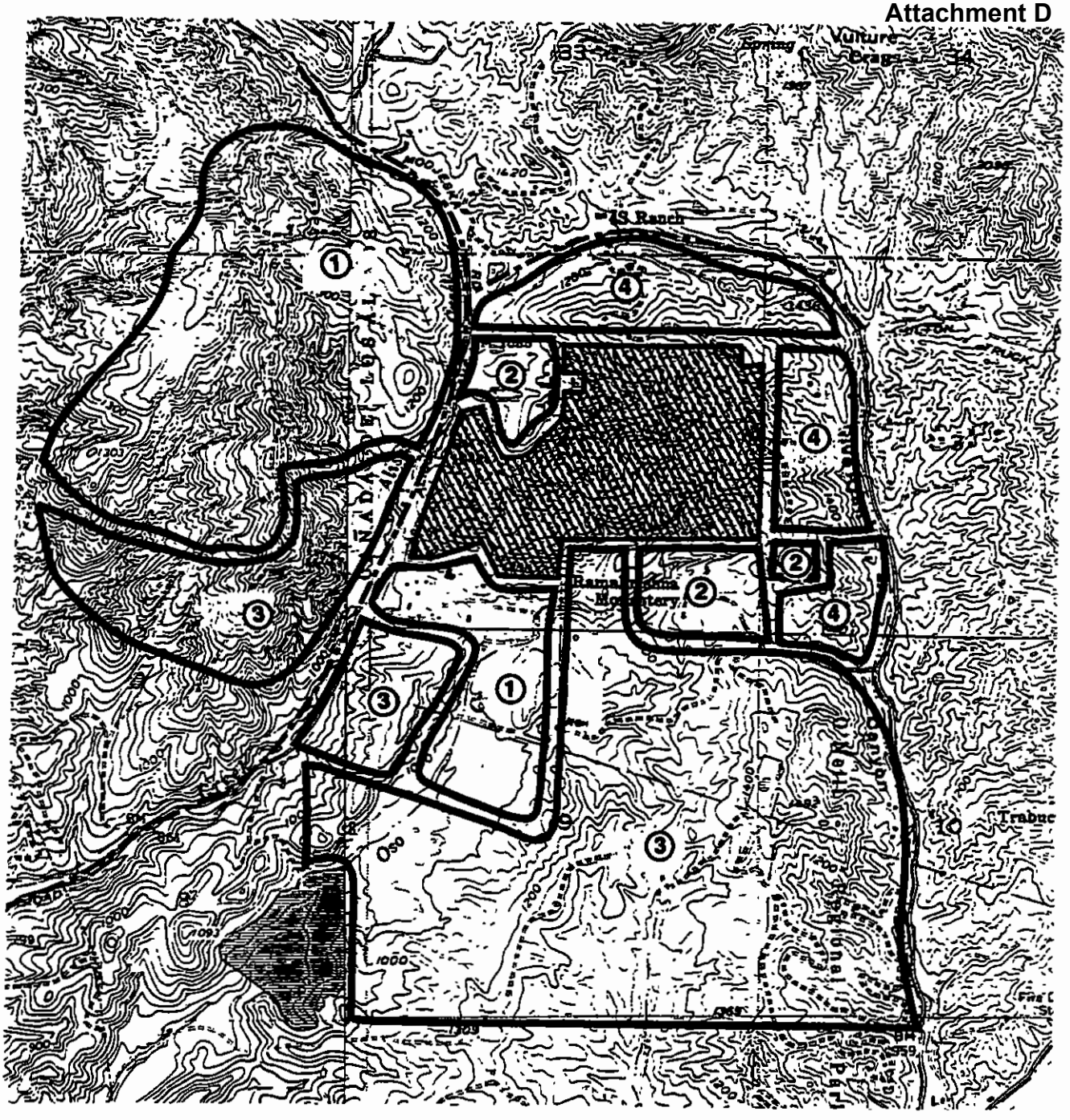
SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Foothill-Trabuco Specific Plan Land Use Designations

EXHIBIT No. 13

URBAN VISION

County of Orange P&DS
Scale: 1"=3500'
Source: Foothill/Trabuco Specific Plan



1 RESIDENTIAL

2 CHURCH

3 RECREATION / OPEN SPACE

4 ESTATE RESIDENTIAL

SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Surrounding Land Use

EXHIBIT No. 14

URBAN VISION

County of Orange P&DS

Scale: N/A

Source: N/A

N

4-8

Aliso Creek Corridor Specific Plan

The Aliso Creek Corridor Specific Plan (concept) was adopted in July 1978 and outlines open space and recreational policies and programs for Aliso Creek and proximal surrounding areas, from it's headwaters in the Cleveland National Forest to its outlet into the Pacific Ocean at Laguna Beach. The goals of the Aliso Creek Corridor Specific Plan area as follows:

- The preservation of the natural character of the Aliso Creek Corridor from the forest to the sea, including the creek course and banks, irreplaceable resources and environmental features.
- The utilization of the Aliso Creek Corridor as an organizer for various systems including, but not limited to, recreation, circulation, public service and development.
- The provision of opportunities to provide for alternative means of transportation and recreation within the Aliso Creek Corridor utilizing bicycle, pedestrian, and equestrian trails, while minimizing conflicts with vehicular traffic along and across the corridor.
- The utilization of the Aliso Creek Corridor as a regional recreation/open space amenity providing a variety of recreation opportunities.
- Provision of a well-organized program designed to implement the Aliso Creek Corridor Specific Plan.

The project site is partially located within the Aliso Creek Corridor Specific Plan, with the Specific Plan's boundary formed by the Aliso Creek watershed limits. The site is located within Planning Unit 5 and more specifically Sub-area 33. Sub-area 33 is designated for open space and recreation land uses. In addition, the Concept Plan shows a regional bike trail onsite.

Zoning

The entire project site is currently zoned "S"-Foothill-Trabuco Specific Plan with "SR"-Sign Restriction overlay district. The Bridlewood/Saddleback Meadows Residential District was established within the Foothill-Trabuco Specific Plan, adopted December, 1991, to recognize the existing zoning and tract map approvals for the Bridlewood/Saddleback Meadows property.

4.1.2 EFFECTS FOUND TO BE INSIGNIFICANT

The following land use/housing effect was found to be less than significant, as determined by the Initial Study contained in Appendix C of this EIR:

- The project will not displace existing housing

4.1.3 PROJECT IMPACTS

Land Use Compatibility

Project implementation would construct manufactured single-family detached dwelling units, streets, slopes and associated infrastructure on the currently vacant project site. Minimum lot size for the proposed project would be about 2,630 sf., which is smaller than the 3,000 sf. and 5,000 sf. required for the neighboring Portola Hills and Hidden Ridge single family detached residential communities, respectively. Both Hidden Ridge and Portola Hills also have attached residential units. A comparison of surrounding project gross densities is shown in Table 5 of Section 3. As shown, the proposed project has a somewhat higher gross density than surrounding area projects.

O'Neill Regional Park is located adjacent to and directly south of the proposed project. The portion of the park adjacent to the site is primarily devoted to wilderness activities. As a result, implementation of the proposed project would not be compatible with existing and planned park uses.

The Ramakrishna Monastery is also located adjacent to the southern boundary of the project site. This religious facility is occupied by seven resident monks and serves a limited number of visitors. Due to the contemplative purposes for which this facility exists, the proposed project would not be compatible with the Ramakrishna Monastery.

Scattered estate density residential land uses are located adjacent to the eastern and northern project boundaries, although they would be physically separated from the proposed project by an intervening ridgeline. These surrounding areas contain minimum one and 2.5-acre lots, and would not be considered compatible with the proposed project.

St. Michael's Abbey is located north and west of the project site and functions as a religious and educational facility. Introduction of the proposed project adjacent to the Abbey would result in a land use incompatibility. The incompatibility between the proposed project and the Ramakrishna Monastery and St. Michael's Abbey is partially offset by some natural open space buffering and topographic landscape screening.

Orange County General Plan

Land Use Element

The proposed project is in conformance with all elements of the County General Plan, including the Land Use Element, Noise Element, Transportation Element, Housing Element, Growth Management Element, Safety Element, Public Services and Facilities Element, Recreation Element, and Resource Element.

Housing Element

The proposed project would supply 705 manufactured single-family residential dwelling units into RSA 43-C, a jobs-rich, housing-poor area. This represents a significant addition to the County's

existing stock of affordable housing units. This is noteworthy because the project was conditionally approved in 1979 with a 66 2/3 percent affordable housing requirement in accordance with the County's Inclusionary Housing Program (IHP). Although this mandate has since been rescinded, the original affordable housing requirements are still attached to Final Recorded Tract Map 10692.[4] As per the Conditions of Approval originally placed on Tentative Tract 10692, a total of 470 lots are to be sold in the affordable range. This figure is further broken down as follows: 188 low/ moderate, and 282 Medium I, as defined by the County.

Foothill-Trabuco Specific Plan

As stated above, the project is inconsistent with many of the goals, objectives, and policies of the Foothill-Trabuco Specific Plan which generally calls for the preservation of the rural character and natural habitat of the Foothill-Trabuco area. The proposed site has been designated "Bridlewood Residential District" by and was made a part of the Specific Plan. Accordingly, the project is exempt from provisions of the Specific Plan. The Specific Plan reads as follows:

> *The Bridlewood (Saddleback Meadows), Lyon Ranch (Saddleback Community Church), Santiago Ranch and Zadeh properties currently have approved or recorded tract maps in effect. Except in the event that proposed development on these individual properties cannot be found consistent with previous approvals, the subject properties shall be exempt from all of the Regulations and Guidelines included in this Specific Plan and shall be subject to the zoning in effect at the time of . . . project approval.*[5]

Although the project is deemed exempt from the goals, objectives and policies of the Foothill-Trabuco Specific Plan, there are certain features of the project which attempt to satisfy community amenities and standards for development. Specifically, these include the incorporation of riding, hiking and bicycle trails, and eight private park sites. Additionally, as required by the original Conditions of Approval, the project also adds significantly to the County's supply of affordable housing stock and helps alleviate the sub-region's current jobs/housing imbalance.

Conversely, the proposed project conflicts with the Foothill-Trabuco Specific Plan specifically with regard to the preservation of a regionally contiguous wildlife corridor. Furthermore, the Specific Plan states that the type of homes being proposed would be incompatible with site topography and biological resources. The Specific Plan reads as follows:

> *It is recognized that the Specific Plan Area, due to its steep terrain and sensitive biological resources, is inappropriate for the provision of affordable housing. The provision of (high*

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[4] *It is noted that the County's prior decision to withdraw its own affordable housing mandate may have been based, in part, on the premise that sufficient affordable housing units already existed, or were planned County-wide. However, to the extent that the County included Tentative Tract Map 10692 in its determination to provide adequate affordable housing in 1979, the removal of the mandated IHP requirements could jeopardize the County-wide calculations used to eliminate the mandate.*

[5] *Ibid. p. III-4*

density) affordable housing conflicts with the goals and objectives of the Specific Plan which include maintaining the rural character of the area, providing a buffer between urban development and the Cleveland National Forest and preserving significant biological resources and natural landforms.[6]

Aliso Creek Corridor Specific Plan

The proposed project does incorporate regional riding and hiking trail connections into its design, however, it does conflict with several other aspects of the Aliso Creek Corridor Specific Plan. For example, the project would not preserve recreational open space or conserve the natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel. Similarly, the project is in direct conflict with the Natural Communities Conservation Planning Program (NCCP) in that it would further disturb a sensitive wildlife habitat area.

Zoning

The proposed project is in conformance with County zoning standards. No conflicts would result.

Impact Significance Criteria

The effects of a project on existing or planned land uses are considered to be significant if the proposed project conflicts with one or more of the following:

A. Conflicts with General Plan land use or zoning designations or policies;

B. Conflicts with existing or planned land uses onsite or adjacent to the project site, e.g., disrupts the physical arrangement of an established community or causes development within or adjacent to open space preserved for habitat value;

C. Results in conversion of prime agricultural land to non-agricultural uses, or impairs the productivity of prime agricultural land;

D. Causes significant urban growth.

These criteria are derived from the County PDS Environmental Analysis Checklist (Initial Study is contained in Appendix C).

4.1.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project would result in significant land use compatibility impacts to O'Neill Regional Park, the Ramakrishna Monastery St. Michael's Abbey, and surrounding residential communities. The project would also conflict with policies of the Aliso Creek Corridor Specific Plan.

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[6] *Ibid. P III-1*

4.1.5 CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with the identified related projects, would result in additional urban intensity development within and adjacent to the Foothill-Trabuco Specific Plan area.

4.1.6 MITIGATION MEASURES

Standard County Conditions and Mitigation Measures

SC 1-1 Prior to the issuance of any building permits for residential construction, the developer shall comply with Board of Supervisors Resolution 82-1368 (Buyer Notification Program) which requires the developer to prepare a map denoting the existing and proposed land uses, arterial highways, and public facilities within the surrounding area for the approval of the Manager, PDS/Current Planning Services Division. The map content, display, and distribution shall be in accordance with the Buyer Notification Program guidelines approved by the Board of Supervisors and available at the Development Processing Center.

SC 1-2 Prior to the issuance of any certificates of use and occupancy, the developer shall provide evidence to the Manager, PDS/Building Inspection Services Division, that the Department of Real Estate has been notified that the project area is within the boundaries of a Community Facilities District (CFD), and will be subject to special taxes for public facilities and/or services.

4.1.7 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the proposed project, with the implementation of the above outlined mitigation measures, would result in unavoidable adverse impacts to land use compatibility.

4.2 SOILS AND GEOLOGY

Geotechnical studies have been prepared for the proposed project by G.A. Nicoll and Associates and are included in Appendix D of this Draft EIR in their entirety. In addition, a Phase I Environmental Assessment has been prepared for the proposed project by Centec Engineering and is included in Appendix O. This section of the Draft EIR summarizes the findings of the following studies:

- G.A. Nicoll and Associates, Geotechnical Environmental Impact Report for Draft EIR No. 566 for Final Tract Map 10692, Saddleback Meadows Development, Orange County, California, March 14, 1997.

- G.A. Nicoll and Associates, Geotechnical Environmental Impact Report, Tentative Tract No. 15230, El Toro Road, Orange County, California, November 27, 1995.

- G. A. Nicoll and Associates, Progress Report, Grading Limits/Quantities, Saddleback

Meadows, Orange County, California, November 6, 1995.

- G.A. Nicoll and Associates, Supplemental Geotechnical Investigation - Saddleback Meadows, Tentative Tract 10692, County of Orange, California, September 1995.

- G.A. Nicoll and Associates, Geotechnical Investigation - Saddleback Meadows, Tentative Tract 10692, County of Orange, California, January 6, 1994.

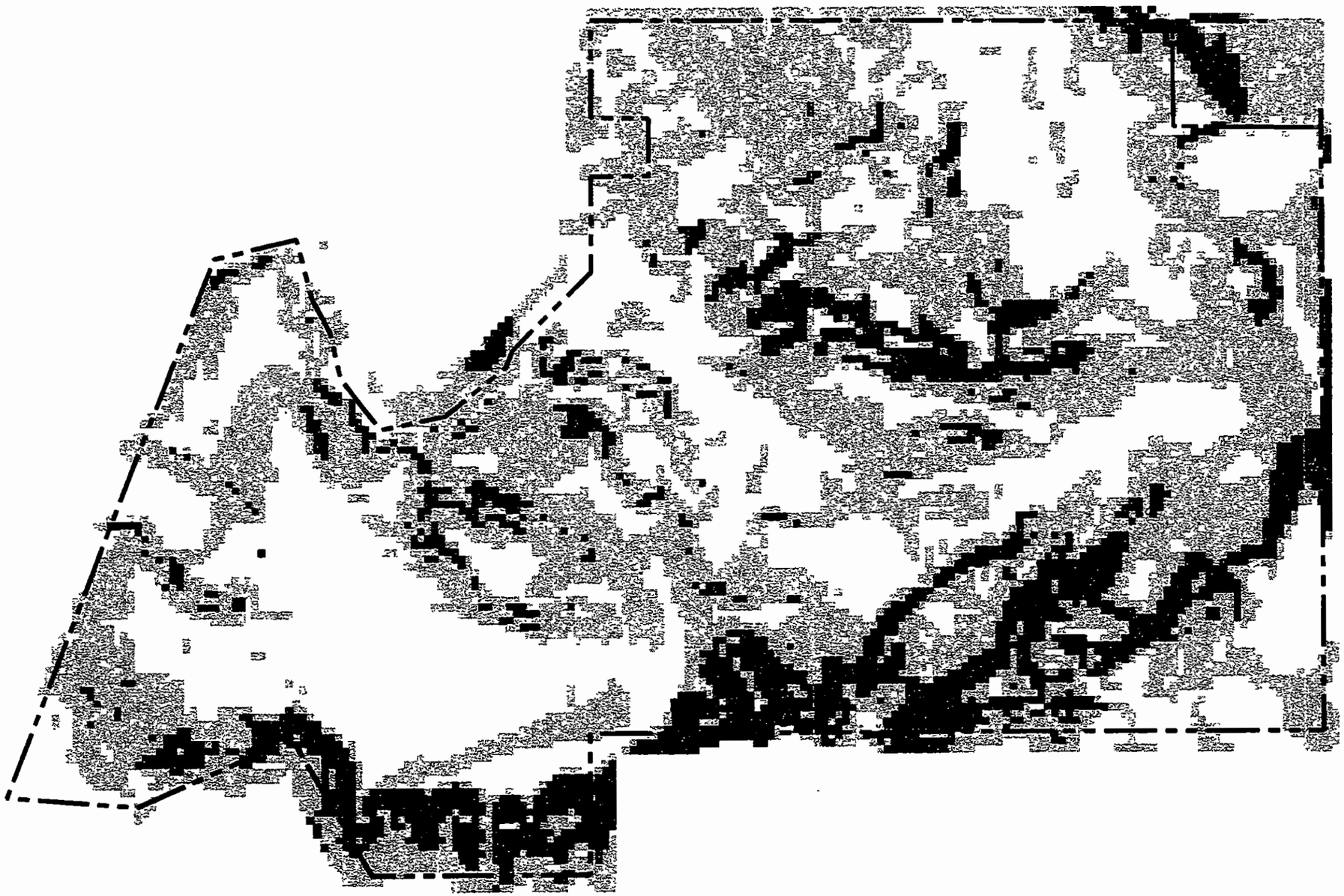
4.2.1 EXISTING ENVIRONMENTAL SETTING

The project site has been subjected to numerous geotechnical investigations since the mid 1970's, associated with a variety of development proposals. The above investigations build upon this analysis (13 studies) and evaluate the geotechnical aspects of the proposed project in detail.

The project site is located within a re-entrant of Canada De Los Alisos. Ridges, ravines and gullies form the dominant physiographic features, providing moderate to high topographic relief. Elevations above Mean Sea Level range from approximately 1,000 to 1,550 feet. Natural slope gradients range from nearly level along some ridge crests and valley bottoms to 1:1 (horizontal: vertical) within deeply incised gullies. The site drains generally toward the west and southwest into Aliso Creek and Oso Creek tributaries of San Juan Creek. A slope map is shown in Exhibit 15.

As shown on the Slope Map in Exhibit 15, 95.5 acres or 43 percent of the project site is in the 0-25 percent slope category, 94.9 acres or 43 percent is in the 26-50 percent slope category and 31.8 acres or 14 percent of the project site has slopes exceeding 50 percent.

Man-made structures on the property include an abandoned ranch house, barn and related structures; several ponds for watering livestock were constructed during the period the ranch was operated, which are still in use for grazing livestock.



SLOPE ANALYSIS

- 0% to 25% : 43% - 95.5 Acres
- 25% to 50%: 42.7% - 94.9 Acres
- 50% and greater: 14.3% - 31.8 Acres

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS

Scale: 1"=400'

Source: Forma

N

Slope Map

EXHIBIT No. 15

The subject site is located within Canada De Los Alisos in the low coastal foothills of the Santa Ana Mountains. These hills are part of the Peninsular Ranges Geomorphic Province and are generally underlain by sedimentary bedrock of Tertiary Age.

Onsite bedrock consists of a thick sequence of interbedded, fine- to coarse-grained sandstone and siltstone of the Tertiary Age Vaqueros-Sespe Undifferentiated and Sespe Formations. Ancient to active landslides underlie much of the project area. Recent and older alluvial deposits are confined to the major gullies and Aliso Creek drainage. Topsoil and colluvium mantel the bedrock and landslides throughout most of the site. Fill soils underlie areas where man-made features, such as roads and berms associated with livestock ponds, were constructed. Existing onsite geology is shown in Exhibit 16.

Earth Materials

Sespe Formation (TS)

The late Eocene to early Miocene Sespe Formation is generally confined to the northwest corner of the tract where it is in fault contact with the undifferentiated Vaqueros-Sespe Formation. These rocks, where they were observed, consisted of red-brown to gray sandstone and interbedded, greenish-gray, clayey siltstone.

Vaqueros-Sespe Formation, Undifferentiated (TVS)

The bedrock underlying the majority of the site exhibits characteristics similar to both the Vaqueros and Sespe Formation. Therefore, these rocks have been classified together as an undifferentiated formation. The rocks consisted of a rhythmic sequence of orange-brown, red-brown, gray to gray-green, sandstone and siltstone with thin interbeds of bentonite-like clay and less weathered volcanic ash and/or tuff. The bentonitic clay beds are generally very soft and plastic in consistency, whereas the sandstone and siltstone units were more often found to be dense and stiff, respectively. Occasionally, fossil-rich beds consisting mainly of broken clam shells were encountered.

Landslide Material (Qls)

The site is occupied by an interrelated collection of active and inactive slides. The extent of the slides is comparable to other sites in the general area which have accommodated residential development, such as the nearby Portola Hills Site. Between prehistoric and recent times, it appears that there were several episodes of slide movement. The larger slides generally failed as block slides, usually along 3- to 12-inch thick clay beds. Some of the smaller, more recent slides have failed as rotational-type failures, following oversteepening of the flanks of major drainage. The characteristics of the observed landslide materials varied from a soft, intensely fractured, sheared and weathered condition to nearly intact, unweathered blocks of displaced, interbedded sandstone and siltstone.

Disturbed Older Alluvium [Qls (Qalo)

Disturbed Older Alluvium is present along the east side of El Toro Road at the toe of the major slides. This material consists of disturbed sand, silt and clay layers containing some gravel that were mixed with blocks of displaced sandstone and siltstone during landsliding.

Older Alluvium (Qalo)

Quaternary Alluvium Deposits are present along the lower portions of the slopes located on the west side of the project site. These deposits consist of moist to wet, moderately dense to loose/soft, silty sand, sandy silt, sandy clay, clay and occasional layers of gravel.

Alluvium (Qal)

Alluvium of recent origin is present in Canada De Los Alisos and its tributaries that enter the project site. The Alluvium consists of interbedded deposits of predominately sand and silt with some clay and layers of gravel. These soils range from dry to wet and are generally poorly consolidated. Alluvial depths range from less than one foot to approximately 12 feet in the tributary drainage, to roughly 20 feet in Canada De Los Alisos which borders the site on the west.

Soil Slumps (Ss)

A number of soil slumps are present. These features represent downhill movement and slumping of topsoil, colluvial soil and weathered bedrock material generally to a depth of 5 to 10 feet.

Structural Geology

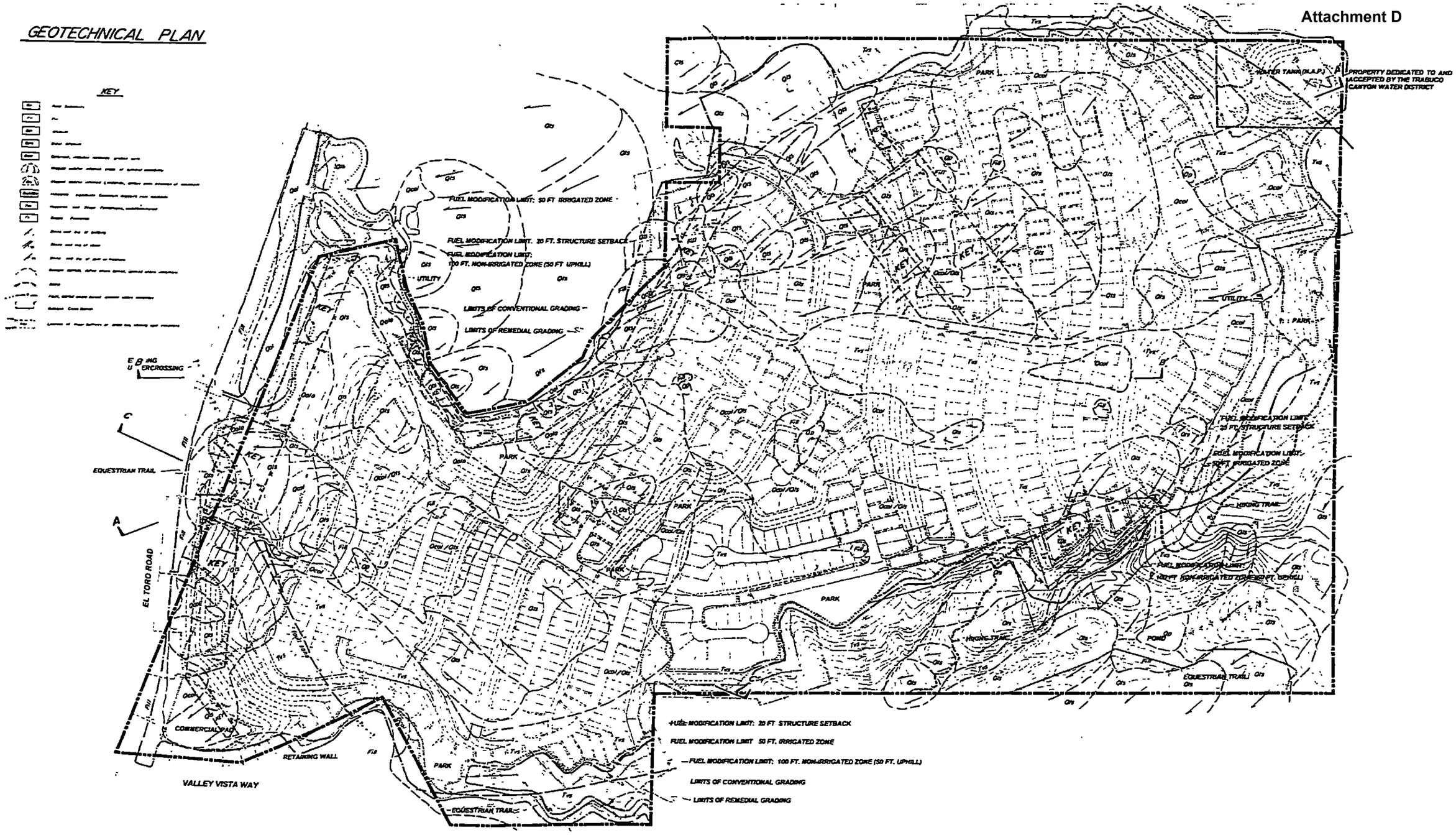
The project site is bordered on the north and south by generally west to northwest trending prehistoric faults. Between these faults, the bedding appears to be warped gently downward, resulting in generally southwest-dipping strata in the central and northern portions of the site and northeast-dipping bedding in the southern areas. Bedding planes under landslides dip at shallow angles (predominantly 6-17 degrees). This synclinal feature, which appears asymmetric, probably governed the configuration and direction of movement of the landslides on the subject property.

Fracturing or jointing was most prevalent in the landslide blocks and in areas within close proximity to faults. Nearly vertical open fractures were observed in some borings. Jointing, in general, dips steeply (between 45 and 90 degrees).

Colluvium (Qcol)

Colluvial deposits cover most of the slopes on the site to average depths of 2 to 3 feet. Within depressions related to landsliding and along the margins of ancient landslides, colluvial depths

GEOTECHNICAL PLAN



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS

Scale: 1"=400'
Source: G.A. Nichols & Assoc.

N

Geotechnical Resources

EXHIBIT No. 16

range from 15 to over 40 feet. The colluvium consists of brown to black, most to very moist, soft to stiff, some areas, the colluvial deposits contain cobble to boulder-size cemented sandstone class.

Fill (Fill)

The soil placed in association with the construction of cattle watering ponds and/or access roads on the subject property is considered Uncertified Fill. The method and effort of compaction is not known. Fill placed essentially on St. Michael's Priory property for landslide stabilization is certified fill. However, since the certified fill is outside the subject property, no distinction between the two types of fill was made on the Geologic Map. Fill is also present beneath the completed portion of El Toro Road.

Ground Water

Ground water occurs on the site as free ground water within the alluvial deposits and bedrock, and as perched ground water within the various landslide blocks. The amount of ground water observed in several of the borings indicates that potential dewatering activities may require coordination with the Regional Water Quality Control Board.

Seismicity

Seismic risk in Southern California is a well recognized factor, and is directly related to geologic fault activity. Seismic damage potential depends on the proximity to active or potentially active fault zones, and on the type of geologic structures. In relative terms, seismic damage is generally less intense in consolidated formations, i.e., bedrock, than in unconsolidated materials, such as alluvium.

In Southern California, most of the seismic damage to man-made structures results from ground shaking and to a lesser degree from liquefaction and ground rupture caused by earthquakes along active fault zones. In general, the greater the magnitude of the earthquake, the greater the potential damage.

Seismic hazards at this site are attributed to ground shaking as a result of an earthquake epicentered on a nearby active fault Ground rupture is not expected to occur on the property as a consequence of regional faults.

Exhibit 17 shows the geographical relationships of the site with respect to major earthquakes and active faults in Southern California. Regional seismicity is summarized in Table 7.

Hazardous Materials

No hazardous or toxic materials have been identified onsite.

Table 7
REGIONAL SEISMICITY

Fault System	Magnitude	Approximate Distance From Site in Miles
Fort Tejon	8.0+	70
Newport/Inglewood	6.3	15
Sierra Madre	6.5	35
San Gabriel	6.5	40
Raymond Hill	7.0	50
Tujunga	6.5	50
San Andreas	8.3	50
Cucamonga	6.5	40
Northridge	6.7	70

Some areas of the project site are underlain by unconsolidated alluvium which tends to amplify earthquake produced ground motion. However, these materials are planned to be removed within proposed structural areas of the site. Nevertheless, buildings should be designed to resist seismic lateral loads.

The potential for liquefaction at the site is considered to be relatively low, since poorly consolidated materials are to be removed.

4.2.2 EFFECTS FOUND TO BE INSIGNIFICANT

The following geotechnical effects were found to be less than significant as determined by the Initial Study/Environmental Assessment contained in Appendix C of this EIR. These factors are not evaluated in this EIR.

- The project site does not contain any active or potentially active faults. Onsite fault rupture hazards are considered insignificant.

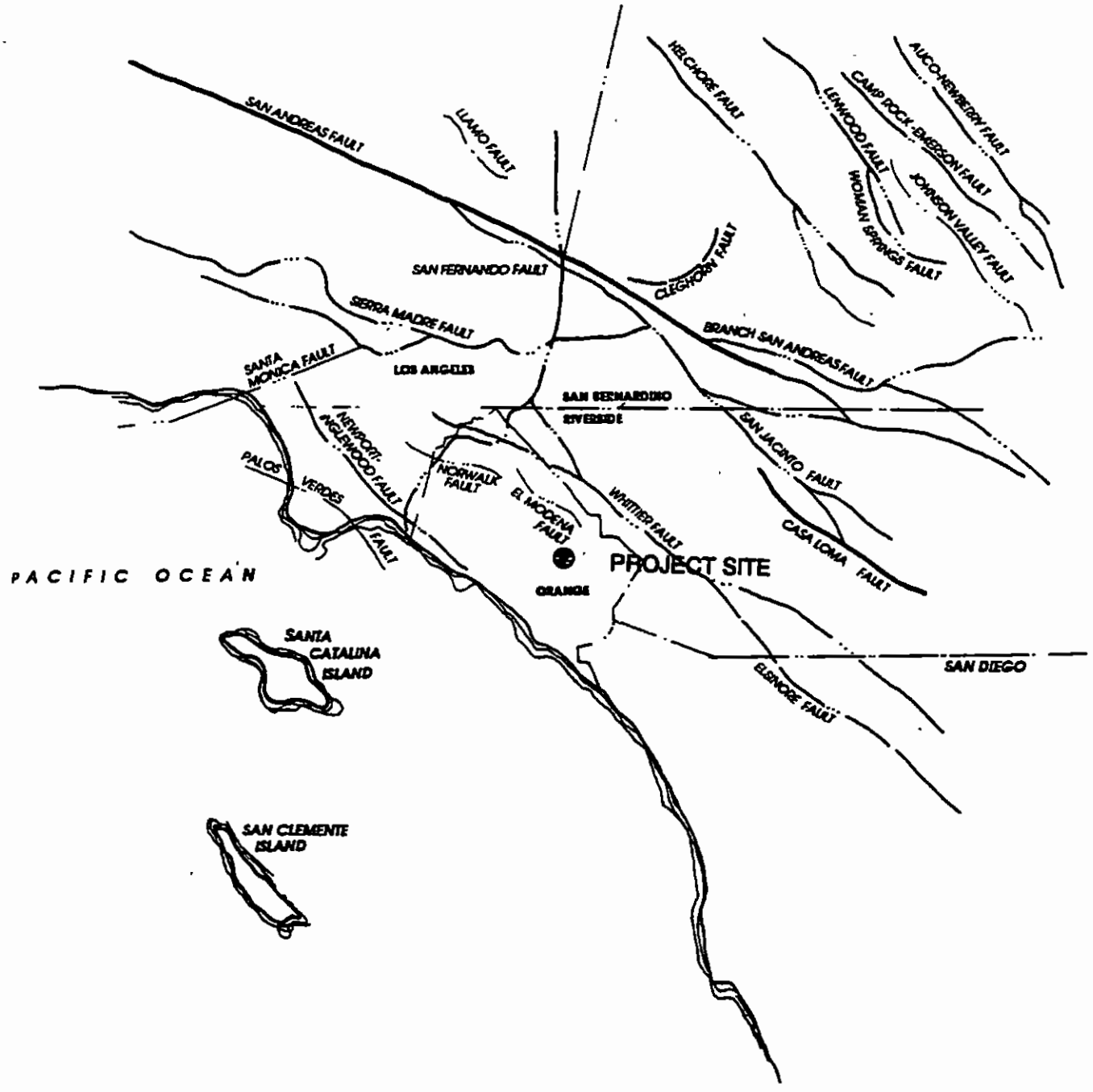
- The project site is not located adjacent to the Pacific Ocean or a large body of water and as such, is not subject to seiche or tsunami hazards.

4.2.3 PROJECT IMPACTS

Grading

Implementation of the proposed project will require the following grading actions:

- Multiple cuts and fills (2.6 million cubic yards) to achieve planned elevations and profiles, and associated access roadways.



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: N/A

N

Regional Seismicity

EXHIBIT No. 17

- Remedial grading (8.9 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills;
- Removal (clean out) of all or major portions of the graben materials and softer alluvium and colluvium under most of the variable thickness fills;
- Installation of appropriate subdrain systems within natural drainage courses and within stability fills prior to fill placement;
- Adequate foundation and slab subgrade conditioning for the proposed development, including overexcavation, capping and measures related to expansive soils;
- Achieving suitable surface gradients, to preclude ponding anywhere onsite and to control water run-off via paved/closed drainage devices.

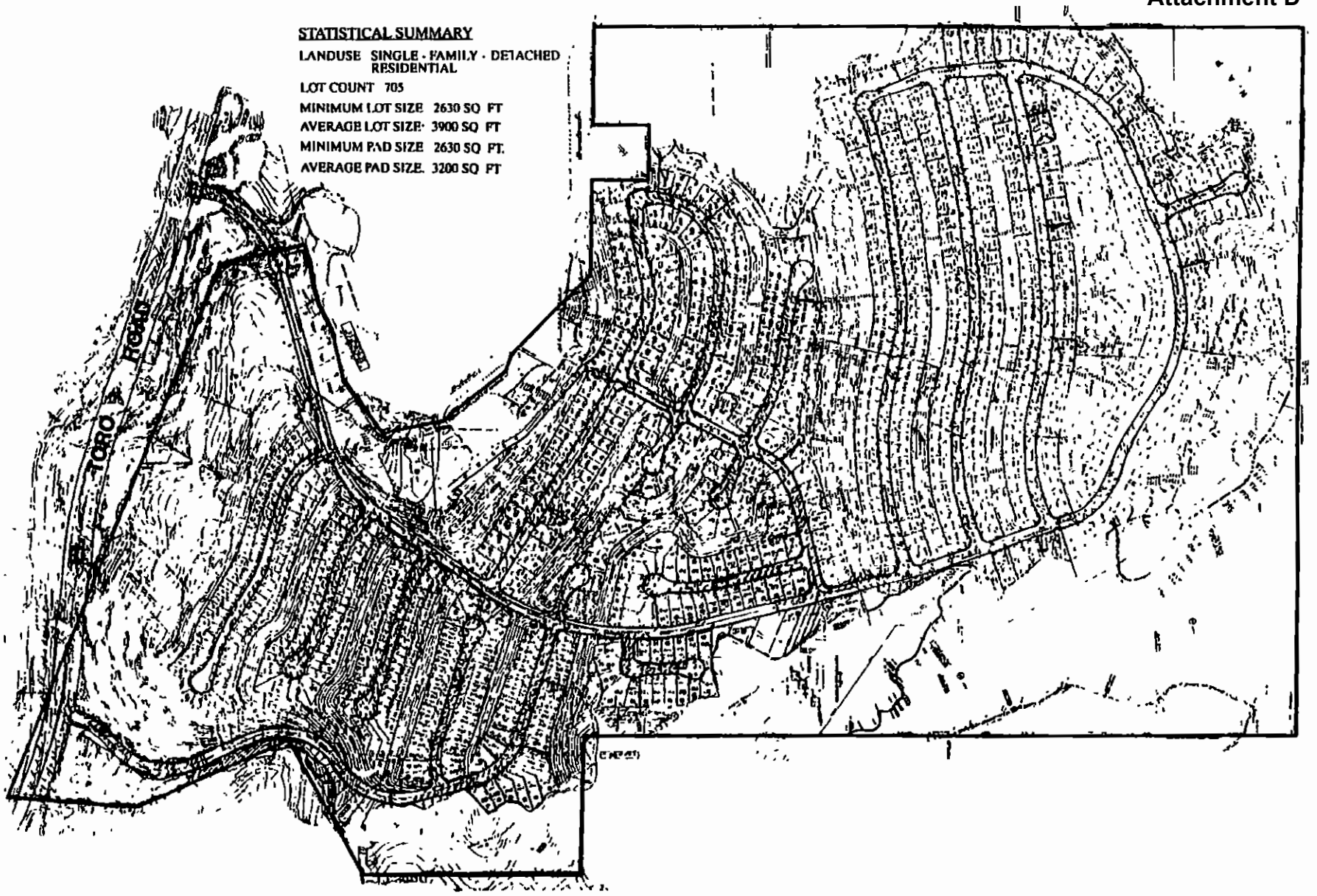
The conceptual grading plan is shown in Exhibit 18, with the limits of remedial grading depicted. Remedial grading volumes are summarized in Table 8.

Table 8
REMEDIAL GRADING QUANTITIES

Landslide Shear key	6,763,900 cy
Removals	1,315,210 cy
Buttresses	762,030 cy
Pad Over Excavation	40,440 cy
Total	**8,881,580 cy**

Implementation of the proposed remedial grading features, including removals/cleaners, buttress construction, subdrain systems, and temporary stockpiling would not result in any impact to the stability of adjacent properties.

Based on average daily grading of 30,000 cubic yards/day, total project-related grading (11.5 million cubic yards) would require approximately 18 months to complete. All preliminary grading would be completed in one continuous phase.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Conceptual Grading Plan

EXHIBIT No. 18

URBAN VISION

County of Orange P&DS

Scale: Not to Scale

Source: N/A

Geotechnical Conditions

The document entitled "Geotechnical Environmental Impact Report for Draft EIR No. 566 for Final Tract Map 10692 Saddleback Meadows Development" concludes that the site is geotechnically suitable for the proposed project. This conclusion is based on the following conditions:

1. Onsite bedrock and large landslide blocks have low settlement potential.

2. There is sufficient low to non-expansive materials to generate select fills

3. Onsite liquefaction is not expected.

4. Bedrock can be excavated; no blasting is anticipated.

5. Grading east of the Abbey property will produce fill in the gully area which will stabilize slopes on the Abbey property.

6. No known active faults are present at the site and surface rupture during earthquakes is not expected.

7. Planned remedial grading will reduce the potential for earthquake-induced landsliding.

8. The site does not lie within the 100-year flood zone.

9. Subsidence at the site due to fluid withdrawal should not occur since no major ground water aquifers or petroleum reservoirs are known to underlie the site.

10. Site grading will reduce the potential for surficial erosion and the consequential siltation of nearby Alisos Creek.

The geotechnical report also describes several unfavorable geotechnical conditions that could compromise the site's ability to support the project. Mitigation measures are recommended however, to correct these conditions and ensure that future development would be adequately supported. The geotechnical report identifies the following conditions as being unfavorable: presence of unstable landslides, occurrence of some moderately to highly expansive soils and bedrock units, and presence of adverse bedding conditions and some ground water.

These unfavorable conditions can be mitigated by implementing corrective grading concepts, such as the construction of buttresses and shear keys, placement of expansive materials in deep fills, buttressing of cut slopes where necessary, construction of canyon subdrains and back drains to minimize or eliminate the affects of ground water, removal of compressible materials and replacement with compacted fill, and construction of large buttress cuts in segments to reduce the possibility of backcut failure.

Impact Significance Criteria

Earth resource impacts resulting from the proposed project could be considered significant if it causes any of the following impacts:

A. Changes in the geologic substructure or unstable earth conditions.

B. Exposures of people of property to geological hazards like landslides, mudslides, ground failure or similar hazards.

C. Substantial disruptions, displacements, compaction or overcovering of the soil.

D. Substantial increase in wide erosion of soils.

E. Changes in siltation, deposition or erosion that may modify the channel of a river or stream, or the bed of any bay, inlet or lake.

4.2.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to the application of mitigation measures would result in significant impacts related to slope stability, landslides, mudslides, subsidence and erosion.

4.2.5 CUMULATIVE IMPACTS

Geotechnical impacts are not considered on a cumulative basis.

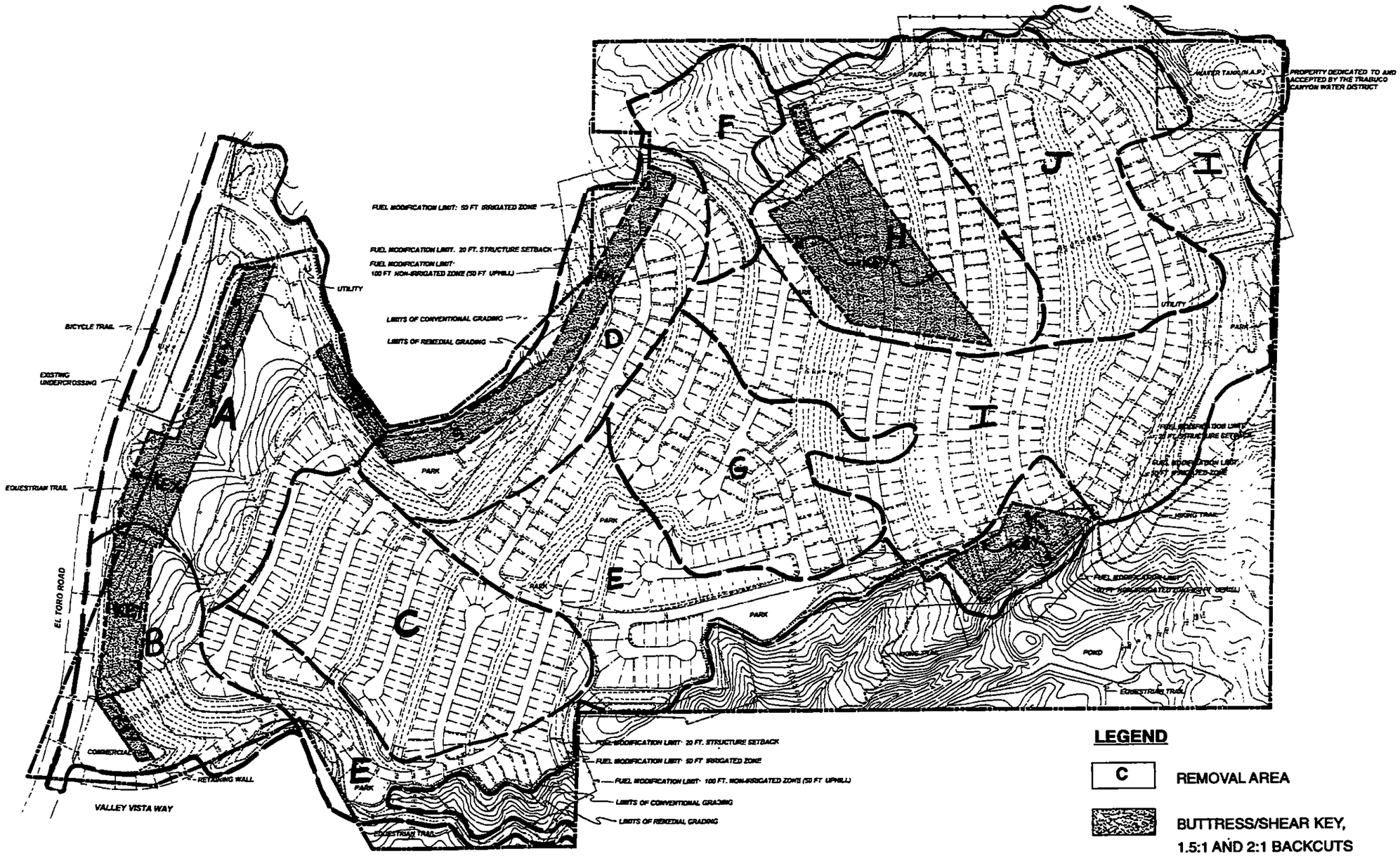
4.2.6 MITIGATION MEASURES

Project Design Features

PDF 2-1 A comprehensive remedial grading mitigation plan has been designed to stabilize the project site, in accordance with OCPDS requirements The plan is depicted in Exhibit 19, included in Appendix D and proposes measures including shear keys, buttresses, removals/recompaction to reduce hazards associated with landslides, erosion and subsidence.

Standard County Conditions and Mitigation Measures

SC 2-2 Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, PDS/Subdivision and Grading Services Division for approval. The report shall include the information and be in a form as required by the Grading Manual.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION
County of Orange P&DS
Scale: 1"=400'
Source: G.A. Nicoll & Associates, Inc.

N

Geotechnical Hazard Mitigation Plan

EXHIBIT No. 19

SC 2-3 Prior to the issuance of any grading permits, the Manager, PDS/Subdivision and Grading Services Division, shall determine if the proposed grading complies with the grading illustrated in the plans approved by the decision-maker with regard to grading concepts, slope heights, slope ratios, and pad elevations and configuration. Significant deviations shall be reviewed by the decision-maker for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised application per Orange County Zoning Code Section 7-9-139 and 7-9-150.

SC 2-4 Prior to the issuance of the first grading permit, for projects located immediately adjacent to or including portions of regional parks, significant open space corridors, or other environmentally sensitive areas, the project proponent shall provide evidence acceptable to the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division, that graded areas will be compatible with natural land characteristics of the adjacent open space areas including techniques to enhance a smooth and gradual transition, urban edge treatment plans and incorporating view enhancement through architectural and design techniques.

SC 2-5 Prior to the issuance of any grading permit, offsite grading and/or drainage shall be conducted in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-6 Prior to the issuance of a grading permit, substantial compliance with the following shall be certified by a registered engineer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

- Fill soils shall be placed in layers that are less than 8 inches thick and moisture-conditioned generally 1- to 2-percent above optimum moisture content. The existing diatomaceous soils should be moisture-conditioned to 125-percent of optimum moisture content.

- For preliminary earthwork computations, the following shrinkage/bulking factors are recommended for the onsite material (these do not include handling losses): Bedrock - 5% bulking; slopewash - 5% shrinkage; and Other Soils - 15% shrinkage. Grading plans shall include an area where finish grades can be raised or lowered to accommodate changes in actual material quantities.

- Dewatering shall be achieved using sumps and pumps located strategically within the excavated area. However, the excavation shall be carefully observed; if the conditions warrant, supplementary dewatering provisions shall be made. It is the responsibility of the contractor to provide an adequate dewatering system during construction.

Seismic

SC 2-7 Conformance with the Uniform Building Code and Orange County codes will insure that seismic considerations are incorporated into the structural designs. All recommendations of the geotechnical report shall be incorporated and utilized in the final construction plans for the parcels in a manner meeting the approval of the Manager, PDS/Building Permit Services Division. Larger buildings, structures with extraordinary architectural configurations, or those of tilt-up construction may require seismic analysis.

SC 2-8 The seismic exposure of the site shall be considered in the design of the proposed structures in a manner meeting the approval of the Manager, PDS/Building Permit Services Division.

SC 2-9 Geologic inspections shall be required during site grading for each parcel to confirm the absence of major faults in the local area in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-10 Prior to the issuance of any grading permits, if review of the grading plan for this property by the Manager, PDS/Subdivision and Grading Services Division, indicates significant deviation from the proposed grading illustrated on the approved tentative tract map, specifically with regard to slope heights, slope ratios, and pad elevations and configuration, the plan shall be reviewed by the Subdivision Committee for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised tentative tract map; or, if a final tract/parcel map has been recorded, a new tentative tract/parcel map or a site development permit application per Orange County Zoning Code Section 7-9-139 and 7-9-150. Additionally, a new environmental assessment and determination is required.

SC 2-11 Prior to the issuance of any grading permit, if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the affected property owners for offsite grading and/or drainage. The owner/applicant shall record said letters of consent for offsite drainage and/or cross-lot drainage prior to recordation of the tract/parcel map or prior to the issuance of any grading permit, whichever comes first.

SC 2-12 Prior to the issuance of any preliminary grading permits, the subdivider shall request that the Vector Control District initiate the survey process of the tract/parcel map site to determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-13 Prior to issuance of grading permits, a Water Quality Management Plan (WQMP) shall be submitted to and approved by the Manager, PDS/Subdivision and Grading

Services Division. The WQMP shall identify, at a minimum, the application and incorporation of those routine structural and non-structural BMPs outlined in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix G detailing implementation of BMPs not dependent on specific land uses, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-14 Prior to the issuance of any grading or building permits, whichever comes first, the applicant shall provide, in accordance with criteria supply by EMA, a "Hazardous Materials Assessment" and a "Disclosure Statement" covering the property (both fee and easement) which will be offered for dedication to the County of Orange, for review and approval by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Monitoring Programs Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

Grading

AM 2-15 Multiple cuts and fills (2.6 million cubic yards) to achieve planned elevations and profiles, and associated access roadways shall be required.

AM 2-16 Remedial grading (8.9 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills shall be required. Back cut failure guidelines shall be provided to the Grading Services Division prior to issuance of grading permits.

AM 2-17 Removal (clean out) of all or major portions of the graben materials and softer alluvium and colluvium under most of the variable thickness fills shall be required.

AM 2-18 Installation of appropriate subdrain systems within natural drainage courses and within stability fills prior to fill placement shall be required.

AM 2-19 Adequate foundation and slab subgrade conditioning for the proposed development, including over excavation, capping and measures related to expansive soils shall be required.

AM 2-20 Achieving suitable surface gradients to preclude ponding anywhere onsite and to control water run-off via paved/closed drainage devices shall be required.

Compaction

AM 2-21 Wherever structural fills are to be placed, the upper 6 to 8 inches of the exposed

subgrade (after stripping and/or over excavation/clean-out) shall first be scarified and reworked. In general, the dry density of the in-situ (native) material shall be at least 85 percent of maximum. In the event that lower densities are determined by field testing to exist, the depth of over excavation will be determined onsite, given due consideration to the geology of the exposed material, as well as its relative location. It is at present expected that typical depths of over excavation will be on the order of 4 to 5 feet.

AM 2-22 Fill shall be placed in lifts of 6 to 8 inches (loose) in thickness. Rocks exceeding 4 inches in maximum dimension are best not incorporated within the upper fill zone (say 3 feet) where foundations and most utility systems are expected to be housed.

AM 2-23 In all fill areas where active gradients are steeper than 5:1 (horizontal:vertical), those surfaces shall be prepared to receive fill by excavating standard keyways and benches in a stair-step configuration.

AM 2-24 Any loosening of reworked or in-place (native material, consequent to weathering and/or passage of construction traffic, shall be made competent.

AM 2-25 Temporary fills, typically associated with access ramps built to accommodate grading equipment shall be subject to removal when their use is discontinued.

AM 2-26 The depths of excavation shall be subject to onsite monitoring by the Soil Engineer, normally during the actual removal operations. Any surface or subsurface obstructions, or questionable material encountered during grading, shall be brought immediately to the attention of the Soil Engineer, for his determination as to proper exposure, removal and/or processing as directed.

Material Selection

AM 2-27 After the site has been stripped of any debris, vegetation and organic soils, such exposed onsite shall be considered satisfactory for reuse in the construction of onsite fills, provided the organic content does not exceed 3% by volume. It is recommended that highly expansive soils not be placed within the upper 4 to 5 feet thick zone underlying final pad and street grades. More importantly, no such soil is to be placed (as backfill)within a horizontal distance equal to the wall height immediately behind retaining walls.

AM 2-28 Any objectionable material, as determined by the Soil Engineer, shall be subject to relocation in deeper fill areas or removal offsite.

AM 2-29 All borrow sites shall be approved by the Soil Engineer/Geologist prior to onsite delivery. This will permit the timely allocation of such available materials for use on the project site.

Compaction Requirements

AM 2-30 Reworking/compaction shall include water addition or drying-out as needed, to bring the soils close to their optimum moisture content. All such reworked soils, placed as structural fills, shall be densified to achieve at least 90 percent relative compaction with reference to the laboratory compaction standard. The optimum moisture content and maximum dry density, for each identified soil type, will be determined in the laboratory in accordance with ASTM Test Designation D1557.

Shrinkage/Subsidence

AM 2-31 For preliminary earthwork computations, an approximate (overall) shrinkage factor of 12 percent shall be required, for the existing site soils. The above value does not include allowance for stripping nor handling losses.

AM 2-32 Subsidence shall be assumed as 3/4 to 1-1/2 inches for grading design purposes.

Excavating Conditions

AM 2-33 Excavation of onsite soils shall be accomplished with standard heavy duty earthmoving or trenching equipment. Some hard cemented sandstone beds were encountered during the field exploration on portions of the site and some minor, isolated blasting may be required to remove these hard materials.

AM 2-34 Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water (seepage) is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher site elevations as well as in cuts made late in the year. All nuisance water shall be accommodated in accordance with County requirements.

Expansion Potential

AM 2-35 Onsite materials are considered to be moderately expansive, generally. Soils of high and low expansivity are expected to comprise less than 25% of the overall pad areas. The expansivity of the actual soils placed within structural areas shall be verified during grading, prior to construction.

Utility Trenching

AM 2-36 The typical walls of temporary construction trenches shall stand nearly vertical, with only minor sloughing, provided the total depth does not exceed 4 to 5 feet. Shoring of excavation walls and/of flattening of side slopes may be required, if greater depths are necessary.

AM 2-37 Trenches shall be located so as not to impair the bearing capacity nor settlement under planned foundations. As a guide, trenches shall be aligned perpendicular to foundations, and the Structural Engineer so informed to modify the foundation at the crossing, as needed. All other trenches shall observe a lateral off-set equal to their total depth.

AM 2-38 Existing soils shall be utilized for trench backfill, provided they are essentially free of organic materials and oversized materials (rock, gravel, etc. in excess of 1-inch maximum size, unless within an approved soil matrix). Alternately, select granular materials (sand equivalent of 30 or greater) may be imported as backfill. Compaction should be accomplished entirely by mechanical means, subject to onsite assessment during pipeline installation.

Surface Drainage

AM 2-39 Positive surface gradients shall be provided away from slope tops per approved grading plans and adjacent to the future buildings, so as to direct surface water run-off away from structural areas and toward suitable discharge facilities.

Sulphate Content

AM 2-40 The soils sulphate content shall be ascertained during the concluding stages of rough grading, and the type of cement to be used determined at that time.

Grading Control

AM 2-41 All grading and earthwork shall be subject to on-going testing and observation by the applicants geotechnical consultant, including engineers, engineering geologists and/or technicians.

Slabs-on-Grade

AM 2-42 Concrete slabs shall be founded on approved (reworked) in-place soils and/or on properly compacted fill. The subgrade shall be proof-rolled just prior to construction to provide a firm, unyielding surface, especially if the surface has been disturbed by the passage of time and/or exposure to construction traffic.

AM 2-43 Floor slabs shall be at least 4 inches thick. The Finished Floor Level should be at least 6 inches above highest adjacent exterior grade. Joints shall be provided.

AM 2-44 If flooring that would be affected by moisture is to be used, the slab shall be underlain by 2 inches of sand, with a 10-mil plastic sheet between the sand and the subgrade.

AM 2-45 Precautions in respect of expansive soils shall be taken.

Foundations

AM 2-46 The proposed structures shall be supported on conventional spread footings, supported into approved compacted fill and/or reworked native material.

Long Term Settlements

AM 2-47 The grading concept, as presently proposed, includes several areas where deep fill will result, exceeding 50 feet in depth. These soil masses may experience significant settlements, with time, of 4 to 6 inches or more. Such downward movements can be tolerated by most improvements, provided these occur at a reasonably uniform rate and rather evenly over a well distributed area. However, the degrees and rates of settlement shall be analyzed during the final design phase.

Phasing of Earthwork

AM 2-48 Unstable Ground
Initial stability evaluations have determined that several natural slopes subject to grading are inherently unstable. Removals, therefore, shall be planned and carried out with care in order to minimize deep-seated, in-construction failures Typically, about 10 percent of back cuts for buttresses will fail during grading. Allowances for schedule and budget contingencies should be made.

AM 2-49 Required Clean-Out Work
Prior to improving the gross stability of hillsides, clean-out work will be necessary along their lowest (toe) elevations. Whereas such selective removals are essential prior to placement of additional fill, this process can trigger undesired slippage. Therefore, selective unloading of the slide mass shall be required before stabilization can effectively begin.

AM 2-50 Slide Unloading
Where existing slope faces are marginally safe in their present condition, the higher portions of each such slide shall require removals toward the top, prior to clean-out, and subsequent loading at the toe.

4.2.7 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the proposed project, with the mitigation measures outlined in Section 4.2.6, would not result in any unavoidable adverse geotechnical impacts.

4.3 WATER/HYDROLOGY

The Hydrology Report has been prepared for the proposed project by Hunsaker and Associates and is included in its entirety in Appendix L of the Draft EIR.

4.3.1 EXISTING ENVIRONMENTAL SETTING

The project site is located within the boundaries of two primary watershed areas: 1) Aliso Creek and 2) Oso Creek. Approximately 75% of the site currently drains into Aliso Creek, with 25% draining to Oso Creek. Regional hydrology is shown in Exhibit 20.

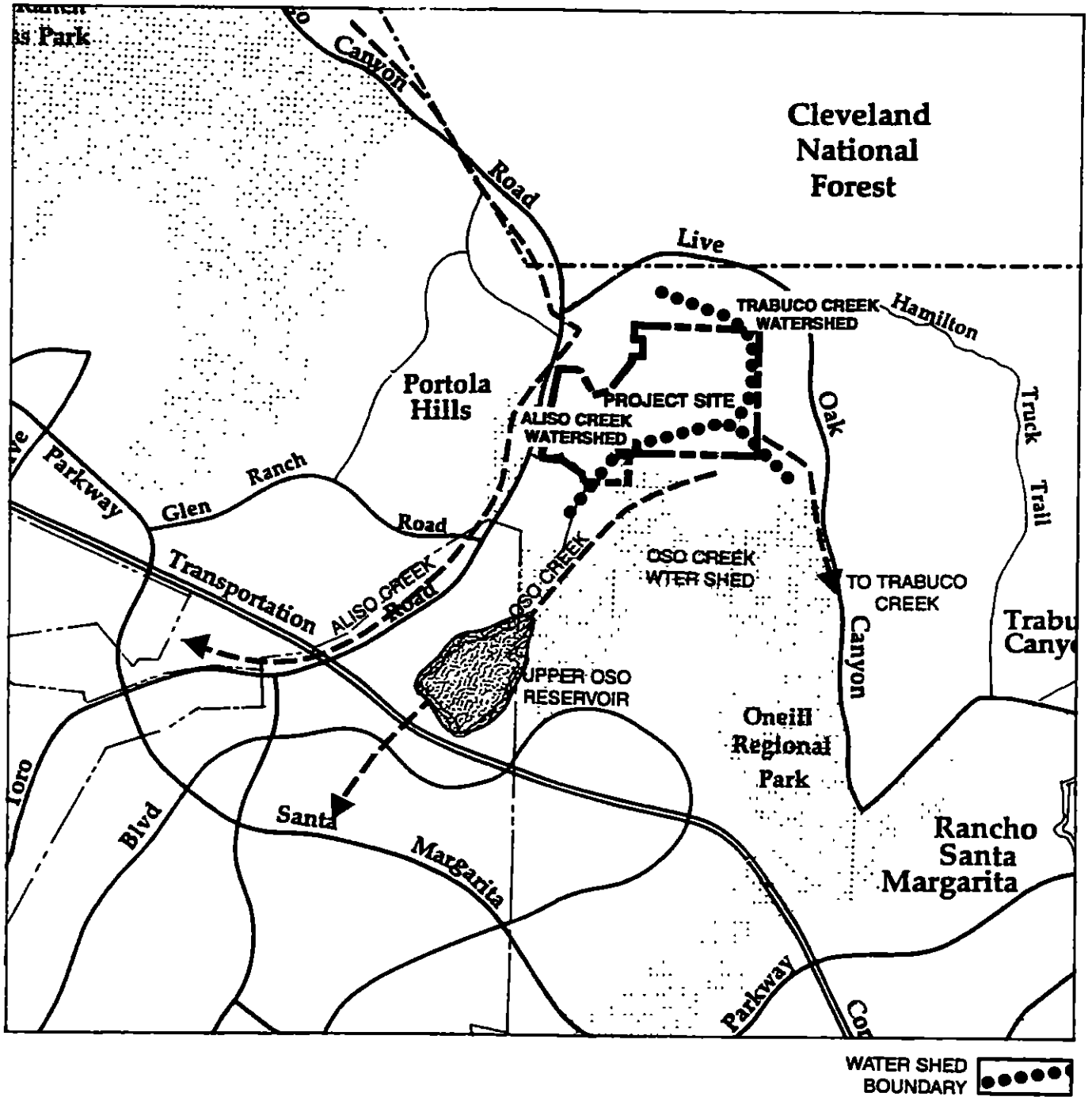
Regional Hydrology

Aliso Creek originates in the Cleveland National Forest, extending for 19 miles to its outlet into the Pacific Ocean, at Aliso Beach. Aliso Creek's watershed encompasses 23,000 acres, and includes natural open space, urban development, regional parks and other recreational facilities. Aliso Creek is formally designated an "impaired" in terms of water quality by the State Water Quality Assessment.

Aliso Creek is located immediately west of the project site, east of El Toro Road adjacent to the northwest portion of the site, crossing under El Toro Road, and west of El Toro Road adjacent to the southwest portion of the site. Aliso Creek has a Q_{100} flow of 3135 cfs at the project's northern boundary.

Existing onsite drainage to Aliso Creek flows from the north and west portion of the property to the west property boundary in a generally westerly direction into three separate facilities which cross under El Toro Road: (a) in the north, these flows are conveyed southwest through a double 96-inch corrugated steel pipe facility (existing Q_{100} is 3,135); (b) in the south, near Valley Vista and El Toro Road, flows are concentrated into a 24-inch reinforced concrete pipe and then conveyed into a 30-inch reinforced concrete pipe; (c) in an area located between (a) and (b), additional offsite flows are collected into a 24-inch reinforced concrete pipe. Flows from each of these three facilities (a, b and c) outlet on the west side of El Toro Road into the natural drainage course of Aliso Creek. Aliso Creek flows southwest through a series of natural courses and man-made facilities eventually outletting into the Pacific Ocean.

The southerly 25% of the project site is located within, and drains into, the Oso Creek watershed. South of the project site, Oso Creek flows are concentrated into a concrete pipe system which increases in size from 42-inch to 54-inch. This system runs in a southwesterly direction through Tract 12724 (Hidden Ridge) beneath Yellow Pine Lane and Meadow Ridge Drive. Flows then outlet onto a concrete energy dissipater and thence back into the natural drainage course of Oso Creek which delivers its flow into the upper Oso Reservoir. Flows collected within the reservoir are then directed either over or through a spillway facility and continue southwest in Oso Creek (which alternates as a natural course or concrete lined channel) to south flowing facilities on the west side of the Golden State Freeway (Interstate 5). Eventually these flows drain into San Juan Creek which outlets into the Pacific Ocean at Doheney State Beach. A small area at the extreme eastern portion of the site drains into the Trabuco Creek watershed.



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Regional Hydrology

EXHIBIT No. 20

URBAN VISION

County of Orange P&DS

Scale: N/A

Source: N/A

N

Onsite Drainage

The majority of existing onsite drainage currently sheet flows to one of four (4) defined onsite drainage courses as shown in Exhibit 21. Existing onsite drainage is summarized in Table 9.

Table 9
EXISTING ONSITE DRAINAGE

Sub Area	Watershed	Q_{100} cfs
A	Aliso Creek	374.5
B	Aliso Creek	19.3
C	Aliso Creek	42.3
D	Oso Creek	103.5

Drainage Area A

The primary onsite drainage drains the northern half of the project site (Drainage Area A) in a generally east to west direction along the northern project boundary. This drainage has been highly eroded during previous winter storm events, and shows evidence of unstable banks. Drainage Area A has a total contributory Q_{100} of 374.5 cfs at the El Toro road 96-inch double pipe undercrossing.

Drainage Area B

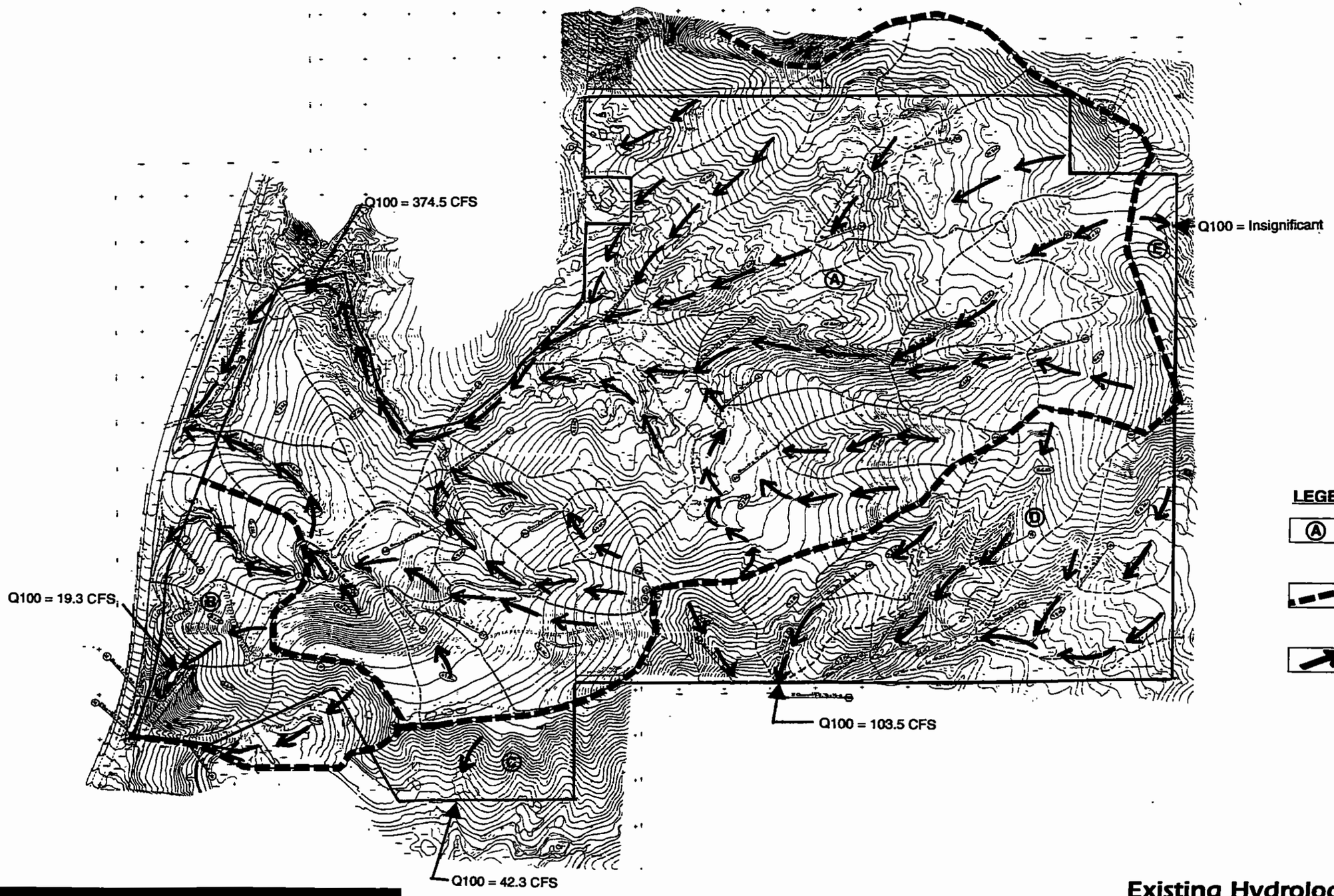
Drainage Area B drains a 6.0 acre portion of the project site to a sump condition south of the primary drainage course. A Q_{100} of 19.3 cfs drains under El Toro Road in a 24-inch RCP, discharging to Aliso Creek, west of El Toro Road.

Drainage Area C

Drainage Area C drains the southwest portion of the site to the southwest corner of the site, where stormwater crosses under El Toro Road in a 24-inch RCP with a Q_{100} cfs stormflow volume of 42.3 cfs.

Drainage Area D

Drainage Area D drains the southeastern portion of the site to Oso Creek in a natural drainage course. Area D has an existing Q_{100} stormflow volume of 103.5 cfs.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION
County of Orange P&DS
Scale: 1"=400'
Source: Hunsaker & Associates

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Existing Hydrology

EXHIBIT No. 21

Livestock Ponds

Eight (8) ephemeral livestock watering ponds are located on the project site and were created by damming tributary drainages in the early 1920's. These ponds serve to retain storm flows until full, until they breach existing earthen dams and continue downstream.

Drainage Assessment Fees

A drainage assessment fee of $74,000 was paid to the County at the time Tract Map 10692 recorded in 1988, and covered the project's pro-rata share of regional drainage facilities.

4.3.2 EFFECTS FOUND TO BE INSIGNIFICANT

The following hydrology effects were found to be less than significant as determined by the Initial Study/Environmental Assessment contained in Appendix C of this EIR. These factors are not evaluated in this EIR.

- Implementation of the proposed project would not result in exposure of people or property to flood hazards.
- The project would not result in changes in the amount of surface water in a water body, changes in currents of the direction of water movement.
- The project would not result in the quantity of groundwater through direct additions or withdrawals, alteration of the rate of flow of groundwater or impacts to groundwater quality.

4.3.3 PROJECT IMPACTS

Implementation of the proposed project will result in the introduction of impervious surfaces (streets, driveways, residential units) and will result in a decrease in the area available for stormwater percolation and a subsequent increase in stormflow runoff. Implementation of the proposed project will result in substantial landform modification, redirecting site drainage throughout the site.

Post development drainage is proposed to be accommodated through a series of storm drains, catch basins and inlet/outlet structures designed to accommodate a 100 year storm event. The proposed storm drain facilities parallel to El Toro Road will join the existing dual 96-inch diameter CSP storm drain which currently crosses underneath El Toro Road. The proposed Orange County Flood Control District facility J01 storm drain plans were approved and signed by the County of Orange on November 16, 1988. The storm drain facilities consist of extending the dual 96-inch CSP storm drain to connect with an open channel riprap facility and a 14-foot by 12-foot reinforced concrete box culvert (RCB) that will run underneath the proposed entry road to Saddleback Meadows.

The on-site private storm drain improvement plans were approved and signed by the County of Orange on November 15, 1988. All of the proposed storm drain system is to be constructed of reinforced concrete pipe (RCP) ranging in size from 18 inches to 48 inches.

All hydraulic calculations and the related hydrology have been previously approved by the County of Orange. Minor updating of the hydrology might be needed in the future depending on input from the County during review of the 40-scale rough grading plans. Proposed drainage facilities are shown in Exhibit 22 and summarized in Table 10.

Table 10
PROPOSED DRAINAGE FACILITY SUMMARY

Storm Drain	Size	Q_{25} cfs (Discharge	Q_{100} cfs (Discharge)	Outlet Location / Connector
A	27-48 inch	277	300	Aliso Creek
B	18-24 inch	68.2	--	Line "A"
E	30 inch	48.5	--	Line "A"
H	27 inch	41.2	--	Line "A"

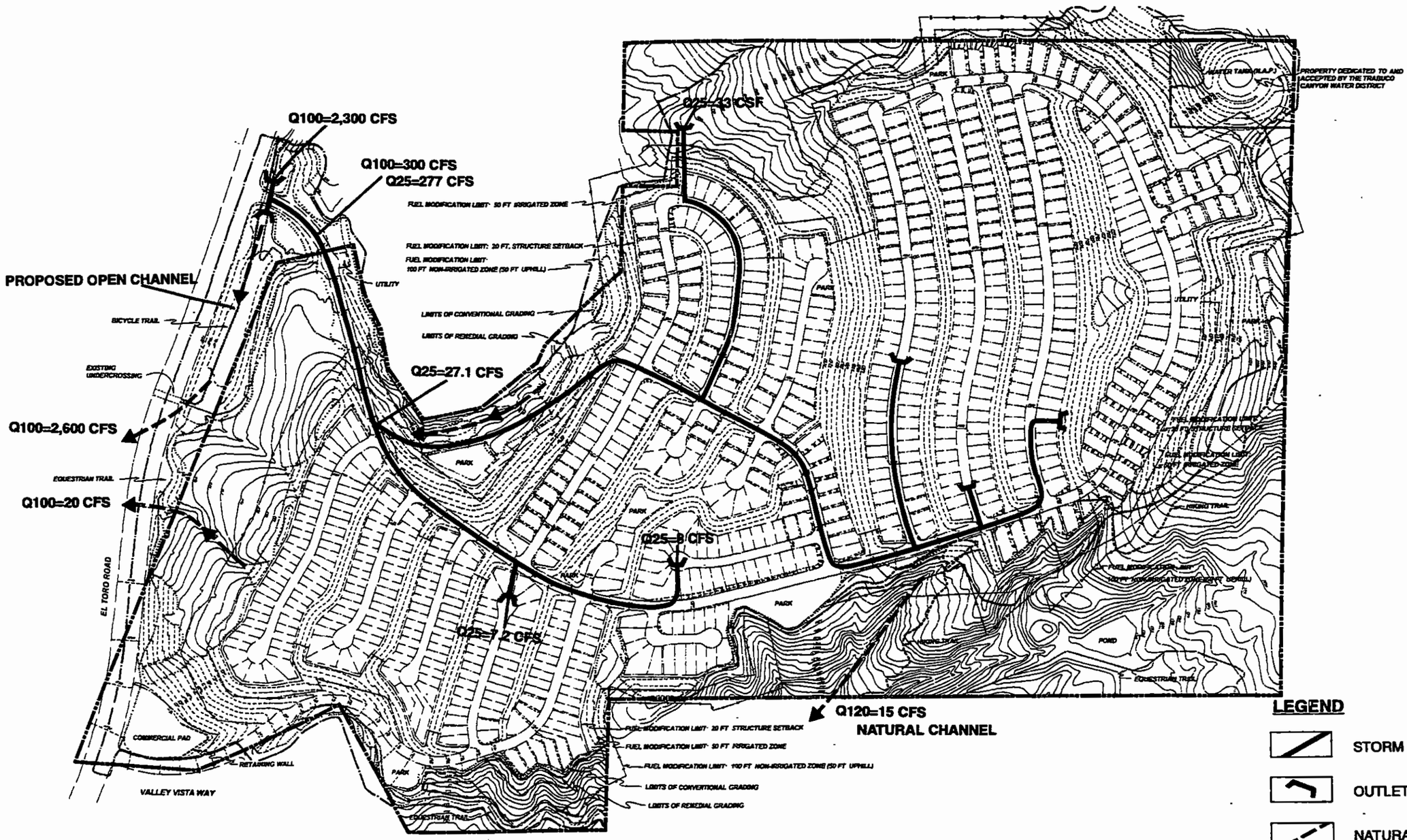
Water Quality

Onsite surface and groundwater quality has not been evaluated from an analytical constituent standpoint due to: 1) its location at the headwaters of Aliso Creek and Oso Creek, 2) the undeveloped nature of the project site and upstream areas, and 3) the lack of pollutant generation sources. Ongoing livestock grazing activities have resulted in continued contamination of the onsite watering ponds with cattle manure. All organic material will be removed during grading operations.

Discharge of increased and concentrated runoff volumes into onsite natural drainage courses would result in increased erosion and associated sedimentation, primarily due to the unstable condition of drainage course banks.

Urban runoff associated with proposed onsite streets, driveways and manufactured slopes would be directly discharged into onsite drainage courses ultimately discharged to Aliso and Oso Creeks and the Pacific Ocean. Urban runoff constitutes would typically include oil, grease, cleaning products, herbicides, pesticides and fertilizers. Project urban runoff would be subject to an National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Discharge Permit, issued by Regional Water Quality Control Board (RWQCB). In addition, the proposed project is subject to the County's NPDES requirements.

Project related post-development urban runoff would incrementally impact the ability of Aliso Creek to recover from its currently impaired designation.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: 1"=400'
Source: Hunsaker & Associates

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Conceptual Drainage Plan

EXHIBIT No. 22

Impact Significance Criteria

An impact is considered significant if:

A. There will be substantial and adverse increased inundation, sedimentation and/or damage from water forces to the subject property or downstream areas; the project will adversely affect the collection and conveyance of runoff and sediment. The design hydrologic standard is the 100 year storm event with an 85 percent (85%) confidence level.[7]

B. Runoff from the completed project area would adversely impact the designated beneficial uses in the runoff receiving watershed, or would substantially impact Public Agency effects to improve any currently recognized conditions of water quality impairment.

4.3.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project would increase onsite storm flows by 17-54% over existing Q_{100} levels. Discharge of urban runoff, discharge of post development runoff into onsite natural drainage courses would result in increased erosion and sedimentation. Urban runoff would be directly discharged into onsite natural drainage courses, resulting in impacts to downstream water quality in Aliso Creek and ultimately the Pacific Ocean.

4.3.5 CUMULATIVE IMPACTS

Implementation of the proposed project, in conjunction with related projects located within the watershed of both Aliso Creek and Oso Creek, would result in increased flows and increased urban runoff, ultimately discharging into the Pacific Ocean. Cumulative impacts to Oso Creek would also effect surface flows and water quality in San Juan Creek. These related projects are located within several jurisdictions, including the County of Orange, the Cities of Mission Viejo, Lake Forest, Aliso Viejo, Laguna Niguel, San Juan Capistrano, Dana Point and Laguna Beach, and Doheney State Park.

4.3.6 MITIGATION MEASURES

Project Design Features

PDF 3-1 A master drainage concept has been incorporated into the project design to mitigate hydrology impacts to existing OCPDS requirements and standards The master drainage concept, shown in Exhibit 22, and contained in its entirety in Appendix L of this EIR, proposes a series of storm drains, catch basins, inlet/outlet structures, energy dissipators and slope drains to control project drainage.

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[7] *These criteria represent refinements of CEQA Criteria that address flooding and runoff that have been utilized in other County of Orange EIRs.*

Standard County Conditions and Mitigation Measures

SC 3-2 Prior to the issuance of any grading permits the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a. Prepare a drainage study determining the effect the proposed development and associated drainage patterns will have on existing drainage facilities.

b. Mitigate either by on-site retardation or by providing improvements appropriately to impacted existing drainage facilities.

SC 3-3 Prior to the issuance of any grading permits the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a. Design and convey construction funds for surface drainage improvements; and

b. Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and

c. Dedicate the associated easements to the County of Orange, if determined necessary.

SC 3-4 Prior to the issuance of any certificates of use and occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, PF&R/Construction Division.

SC 3-5 Prior to the issuance of any grading permit, and if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations.

SC 3-6 Prior to issuance of any building permits, the applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division, including payment of fees and the construction of the necessary facilities.

SC 3-7 Potential for the proposed project to impact the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

Water Quality

SC 3-8 Prior to issuance of building permits, or grading permits, whichever come first, permit

applicant shall submit for approval of the Manager, PDS/Subdivision and Grading Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. This WQMP shall identify at a minimum the routine structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of the BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, lessee, etc.); and, shall reference the location(s) of structural BMPs.

SC 3-9 Prior to the issuance of precise grading permits or building permits, whichever comes first, the applicant shall submit and obtain approval from the Manager, PDS/Subdivision and Grading Services Division, of a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine, structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association shall reference the location(s) of structural BMPs.

Flood Plain Elevation

SC 3-10 Prior to issuance of any grading permits, the applicant shall submit evidence to the Manager, PDS/Subdivision and Grading Services Division, that the applicant has obtained coverage under the NPDES statewide General Stormwater Permit from the State Water Resources Control Board.

Easements

SC 3-11 Prior to the issuance of any certificates of use and occupancy, the applicant shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange or the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting any of said easements, the subdivider shall furnish a copy of the proposed easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval. Further, a copy of the approved easement shall be furnished to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificate of use and occupancy.

4.3.7 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the proposed project, in conjunction with the above outlined mitigation measures, would result in no unavoidable adverse impacts to surface or groundwater hydrology.

Implementation of identified Best Management Practices mitigation measures would reduce potential adverse water quality impacts to less than significant levels.

4.4 TRANSPORTATION/CIRCULATION

The traffic analysis entitled, "Saddleback Meadows (TT 10692) Growth Management/CMP Traffic Analysis (revised), Orange County, California", dated May 19, 1997, has been prepared for the proposed project by Robert Kahn, John Kain (RKJK) Associates, and is included in its entirety in Appendix F of this Draft EIR.

4.4.1 EXISTING ENVIRONMENTAL SETTING

Site Access

Access to the project site is currently provided from El Toro Road, and Valley Vista Way, located within the Hidden Ridge/Hidden Hills Community. The regional circulation system is shown in Exhibit 23.

Regional Transportation Facilities

The Orange County Master Plan of Arterial Highways shows the location and extent of arterial highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan and serves to coordinate future arterial highways between local jurisdictions. Exhibit 25 illustrates the typical Orange County cross-sections and design capacity values for various roadway classifications.

Existing roadways in the project area include the Foothill Transportation Corridor (SR-241), Santiago Canyon Road, El Toro Road, Marguerite Parkway, Portola Parkway, Santa Margarita Parkway, Live Oak Canyon Road, Ridgeline Road, Saddleback Ranch Road and Glenn Ranch Road. The Orange County Master Plan of arterial highways is shown in Exhibit 24.

Foothill Transportation Corridor (SR-241) has recently been extended southerly to Antonio Parkway. This corridor, in conjunction with Portola Parkway and Irvine Boulevard, now provides a connection from the communities of Coto de Caza and Santa Margarita to the City of Tustin. SR-241 is a limited access toll road facility, with on-ramps/off-ramps located near the project at Portola Parkway and Los Alisos Boulevard. Once completed, SR-241 will traverse inland Orange County from San Clemente at the south to its intersection with the Eastern Transportation Corridor on the north, in the City of Tustin.

Santiago Canyon Road is classified as a Primary (four-land divided) Arterial highway on the Orange County Master Plan of Arterial Highways (MPAH). It is currently two lanes in the vicinity of the site. Santiago Canyon Road currently accommodates approximately 10,000 to 14,000 average daily trips (ADT) in the project area.

El Toro Road is classified as a Major Arterial highway south of Live Oak Canyon Road on the

Orange County MPAH. It is partially constructed to its Master Plan classification near Santa Margarita Parkway and has yet to be improved (two lanes) in the vicinity of the project site. El Toro Road currently accommodates approximately 13,000 to 23,000 ADT in the project area.

Marguerite Parkway is classified as a Primary (four-lane divided) Arterial highway south of El Toro Road on the Orange County MPAH. Marguerite Parkway in the project area has been fully constructed and currently carries approximately 12,000 ADT in the project area.

Portola Parkway is classified as a Major (six-lane divided) Arterial highway north of El Toro Road to Alton Parkway on the Orange County MPAH. It is fully improved and currently accommodates approximately 20,000 to 22,000 ADT in the project area.

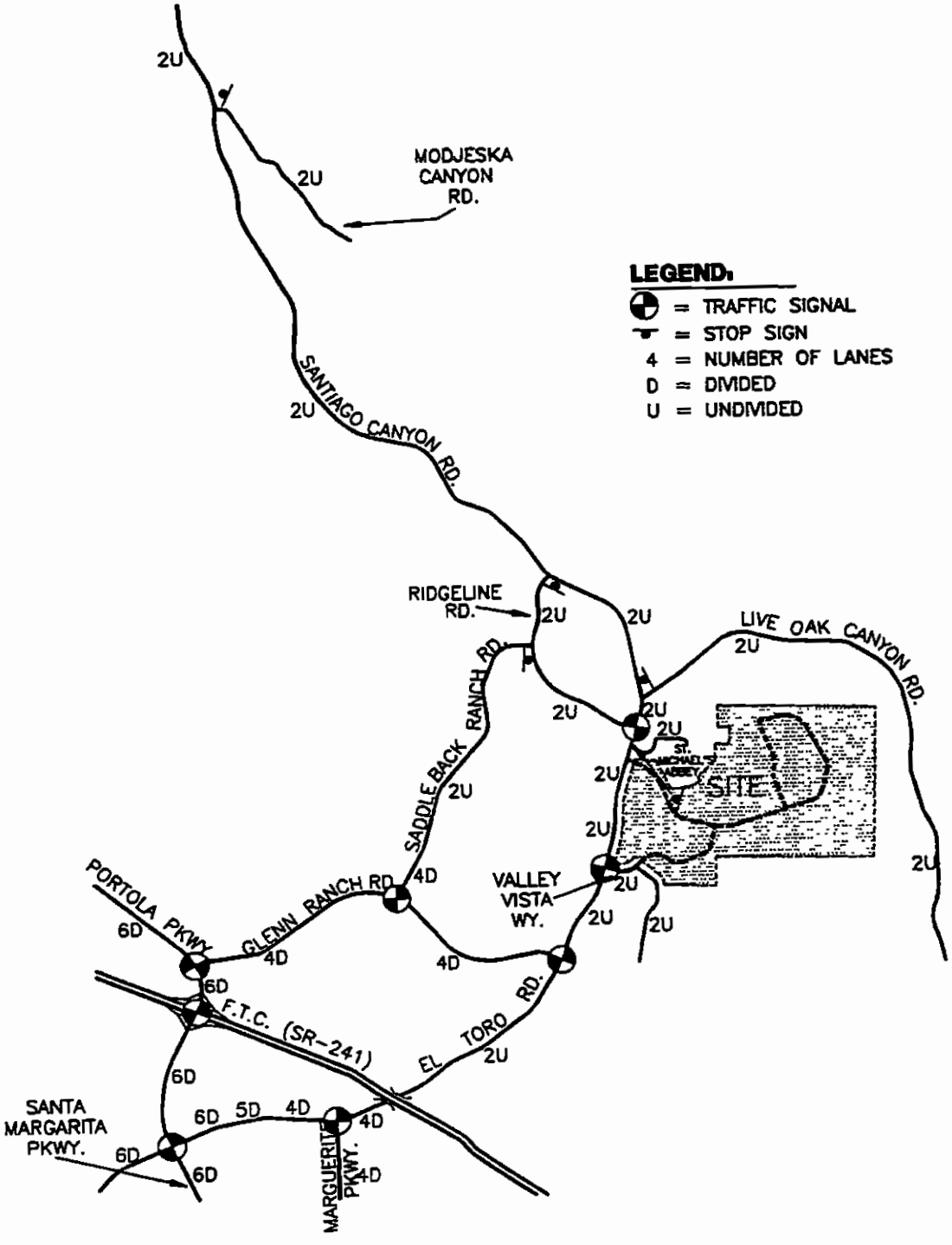
Santa Margarita Parkway is classified as a Major (six-lane Divided) Arterial highway on the Orange County MPAH. It has been fully improved to its Master Plan of Arterial Highways classification in the project area. Traffic volumes on Santa Margarita Parkway are approximately 26,000 ADT in the project area.

Live Oak Canyon Road is currently two lanes east of El Toro Road. It currently carries approximately 5,000 ADT in the project area.

Ridgeline Road is currently two lanes west of El Toro Road. It currently carries approximately 1,000 to 2,000 ADT in the project area.

Saddleback Ranch Road is currently two to four lanes in the project area. It currently carries approximately 3,000 ADT.

Glenn Ranch Road has recently been completed to provide a direct connection between El Toro Road south of the project site and Portola Parkway north of the Foothill Transportation Corridor (SR-241). Glenn Ranch Road is classified as a Primary (four-lane divided) Arterial highway on the Orange county MPAH. It is fully constructed and currently carries approximately 5,000 ADT in the project area.



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Regional Circulation System

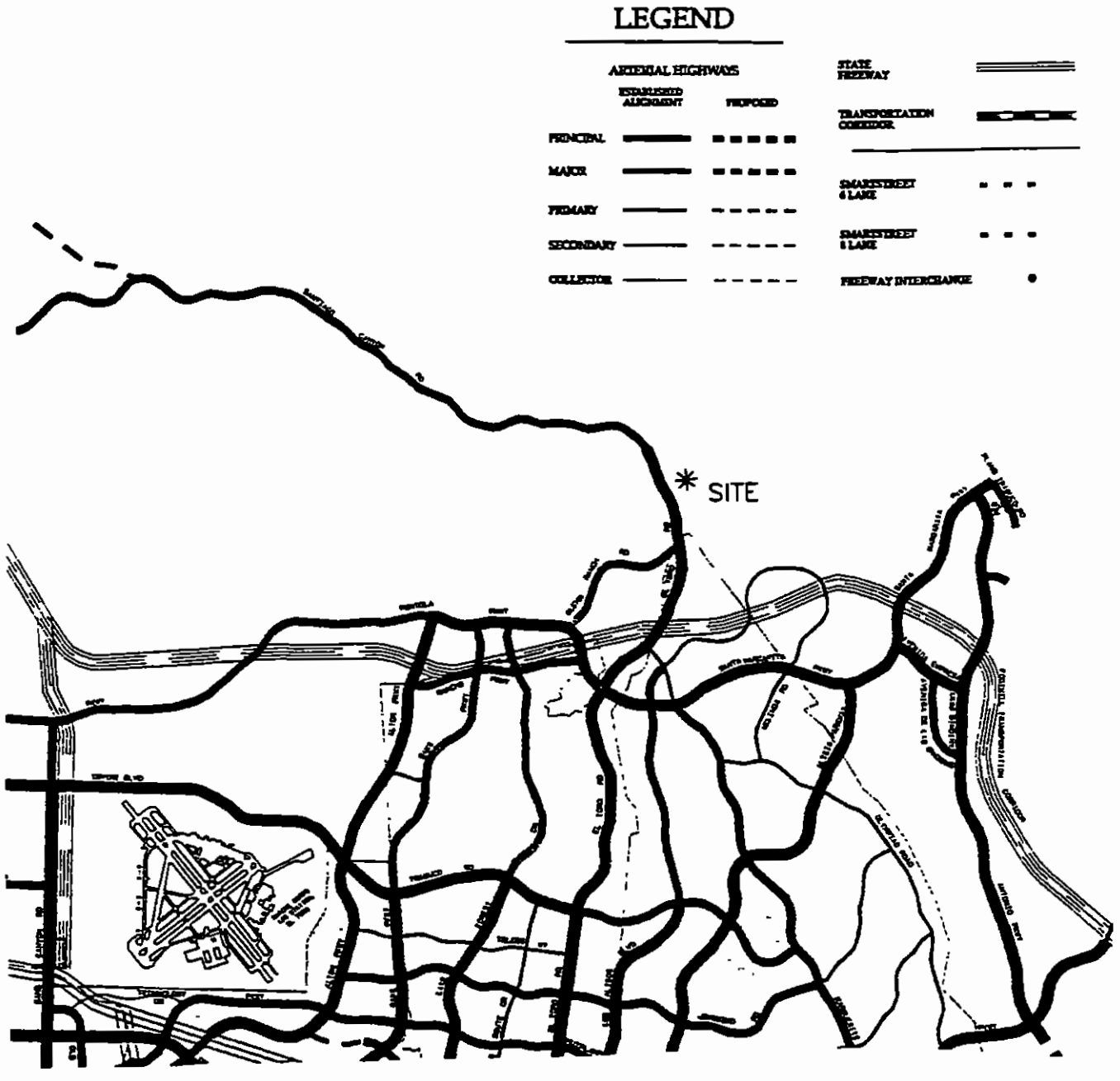
EXHIBIT No. 23

URBAN VISION

County of Orange P&DS

Scale: N/A
Source: RK/JK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Orange Co. Master Plan of Arterial Highways

EXHIBIT No. 24

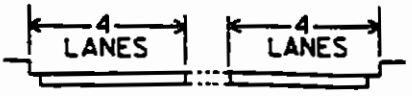
URBAN VISION

County of Orange P&DS

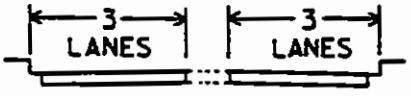
Scale: N/A
Source: RKJK

N

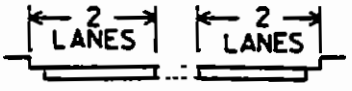
CLASSIFICATION



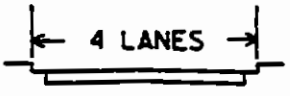
PRINCIPAL
8 Lane Divided Roadway
Accommodates 45,000 to 60,000 ADT



MAJOR
6 Lane Divided Roadway
Accommodates 30,000 to 45,000 ADT



PRIMARY
4 Lane Divided Roadway
Accommodates 20,000 to 30,000 ADT



SECONDARY
4 Lane Undivided Roadway
Accommodates 10,000 to 20,000 ADT

COMMUTER
2 Lane Undivided Roadway
Accommodates 7,500 to 10,000 ADT

SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

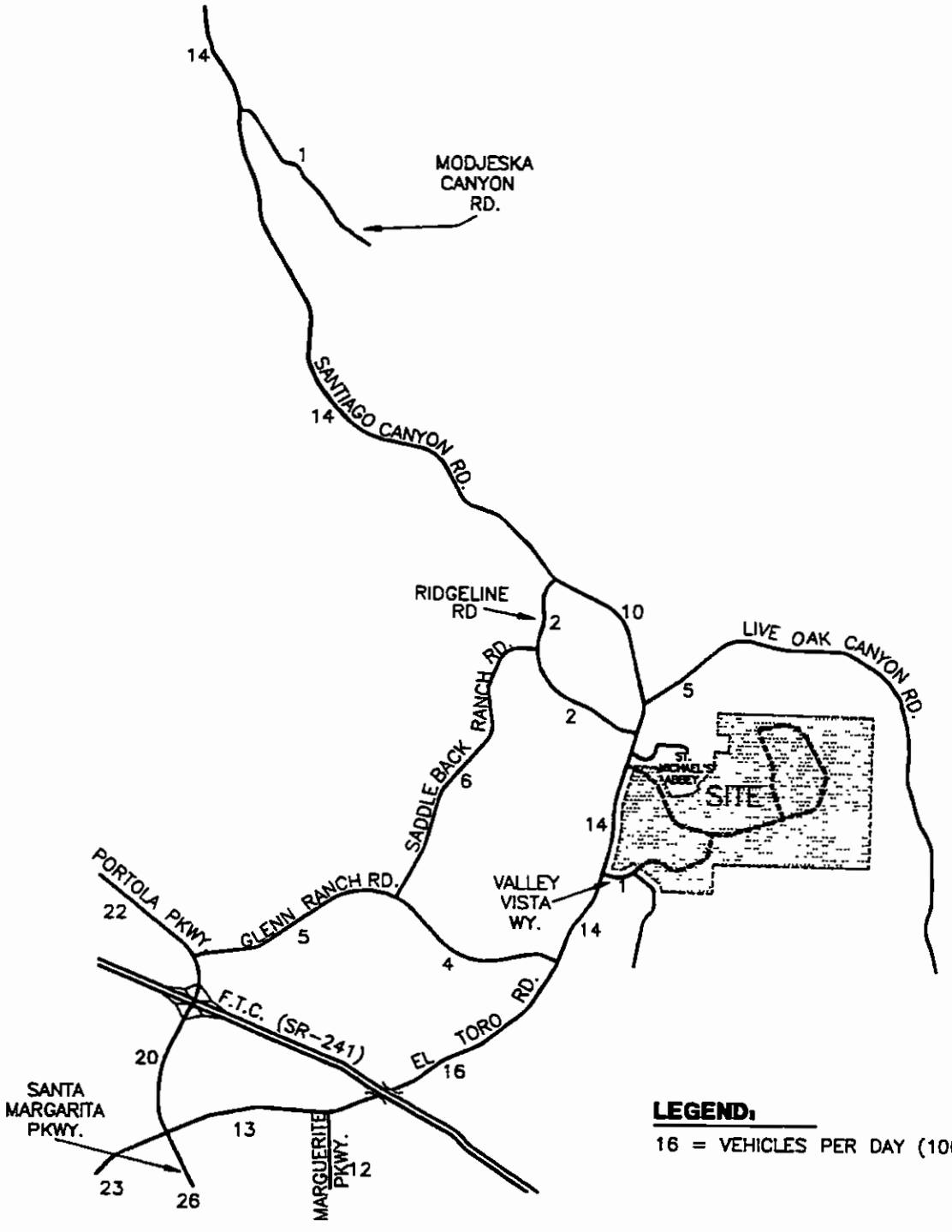
URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK

N

Orange Co. Cross Sections & Level of Service "C" Values

EXHIBIT No. 25



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Existing Average Daily Traffic (ADT)

EXHIBIT No. 26

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK

Traffic Volumes and Conditions

Existing average daily traffic volumes on arterial highways throughout the project area are shown in Exhibit 26. ADT volumes are based upon the traffic data collected by the County of Orange and counts made by the traffic engineer in June, 1995. Existing ADT and Level of Service (LOS) information for project area roadways is contained in Table 11.

Table 11
EXISTING INTERSECTION ICU and LOS

Intersection	PEAK HOUR ICU		PEAK HOUR LOS	
	AM	PM	AM	PM
Santiago Canyon Road (NS) at:				
• Modjeska Canyon Road (EW)	0.82	0.57	D	A
• Ridgeline Road (EW)	0.78	0.55	C	A
El Toro Road (NS) at:				
• Live Oak Canyon Road (EW)	0.74	0.45	C	A
• Ridgeline Road (EW)	0.62	0.53	B	A
• Valley Vista Way (EW)	0.58	0.45	A	A
• Glenn Ranch Road (EW)	0.54	0.56	A	A
Saddleback Ranch Road (NS) at:				
• Glenn Ranch Road (EW)	0.29	0.33	A	A
Marguerite Parkway (NS) at:				
• El Toro Road (EW)	0.32	0.43	A	A
Portola Parkway (NS) at:				
• Glenn Ranch Road (EW)	0.54	0.45	A	A
• Foothill Transportation Corridor (EW)	0.40	0.55	A	A
• El Toro Road (EW)	0.40	0.49	A	A

As shown, all project area intersections are operating at an acceptable level of service.

Traffic signals appear to presently be warranted at the following unsignalized intersections:

Santiago Canyon Road at:

- Ridgeline Road

El Toro Road at:

- Live Oak Canyon Road

The project site is presently located within four roadway fee programs, as summarized in Table 12.

Table 12
ROADWAY FEE PROGRAMS

Program	Cost
• Eastern/Foothill Transportation Corridor Road Fee Program	$ 3,594/du - residential $4.99/sf - commercial
• Santiago Canyon Road Major Thoroughfare and Bridge Fee Program and Safety Improvement Program	$ 510/du - residential $0.45/sf - commercial
• El Toro Road Fee Program	$ 1,026/du - residential $5,948/ac - commercial
• Foothill Circulation Phasing Program Including Special FTC Fees	$ 2,914/du - residential $2.62/sf - commercial
Total	**$ 8,044/du - residential** **$8.34/sf - commercial**

Bikeways

The Master Plan of Countywide Bikeways contained in the General Plan Transportation Element identifies El Toro Road and Live Oak Canyon Road as Class 1 trails. OCTA recently adopted a *Commuter Bikeways Strategic Plan* (CBSP) which identifies a network of proposed regional bikeways that link residential areas with activity centers and intermodal transfer points. The CBSP replaces the County's Master Plan of Countywide Bikeways as the countywide commuter bike plan.

The CBSP identifies El Toro Road as a Class I bikeway and Live Oak Canyon Road as a Class II bikeway. Funding for regional bikeways on the Strategic Plan is provided by the SB-821 Bicycle and Pedestrian Facilities Program which is administered by OCTA. Funds for regional bikeways are allocated on a competitive basis to bikeway projects that are on the Commuter Bikeways Strategic Plan.

Scenic Highway

Both El Toro Road and Live Oak Canyon Road are identified as scenic highways on the County Master Plan of Scenic Highways and in the Foothill-Trabuco Specific Plan.

Public Transit

Orange County Transportation Authority (OCTA) representatives have indicated that the proposed project site is not currently served by an existing bus route extending adjacent to the site on El Toro Road. Two bus routes are located in the project vicinity. Route #309, with the nearest bus stop located at the intersection of Santa Margarita Parkway and Marguerite Parkway (near Trabuco Hills Center) is approximately 2.25 miles southwest of the project site. Route #93, with the nearest bus stop located at the intersection of Santa Margarita Parkway and Los Alisos Boulevard (Portola Plaza) is located approximately 2.5 miles southwest of the subject site.

The nearest Park and Ride parking lot (Park and Ride lots are provided by the OCTA to facilitate ride sharing and car pooling) is located at Saddleback Valley Community Church near the intersection of El Toro Road and Portola Parkway, approximately 2.0 miles southwest of the project site.

4.4.2 EFFECTS FOUND TO BE INSIGNIFICANT

The following transportation/circulation effects were found to be less than significant as determined by the Initial Study/Environmental Assessment contained in Appendix C of this EIR. These factors are not evaluated in this EIR.

- The proposed project would not result in insufficient parking capacity onsite or offsite.
- The proposed project would not conflict with alternative transportation policies (e.g., bus turnouts or bicycle racks).

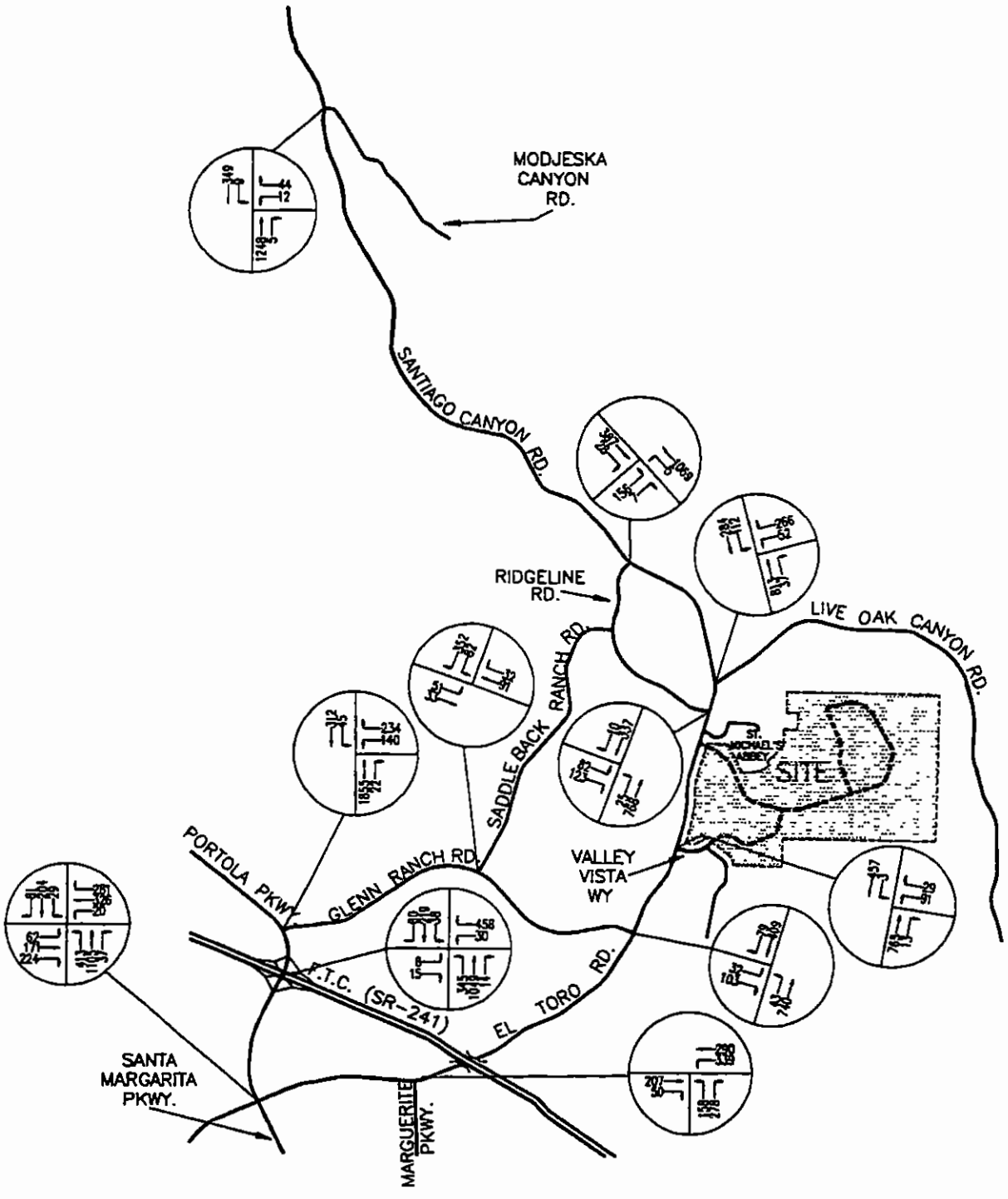
4.4.3 PROJECT IMPACTS

Project access will be off of El Toro Road; an emergency access only/gated access at Valley Vista Way will also be provided. The entry street will be designed as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The Collector cross-section should be maintained for approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway. The entry street will be designed with a traffic signal and a southbound left-turn pocket and northbound right-turn lane.

Traffic Impact Modeling

The current modeling source for traffic projections in the study area is the Orange County Transportation Analysis Model (OCTAM), Version 2.5, South County Subarea (SCTM). The Year 2000 and 2020 daily forecasts were projected to include the project, therefore, Year 2000 and 2020 traffic conditions without the project involved subtracting project volumes from the SCTM model volumes.

The Year 2000 and 2020 peak hour forecasts were developed using the previously described daily forecasts, along with peak hour traffic count data collected at each analysis location. Future baseline ADT volumes are shown in Exhibit 37. The proposed project is projected to generate approximately 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour.



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

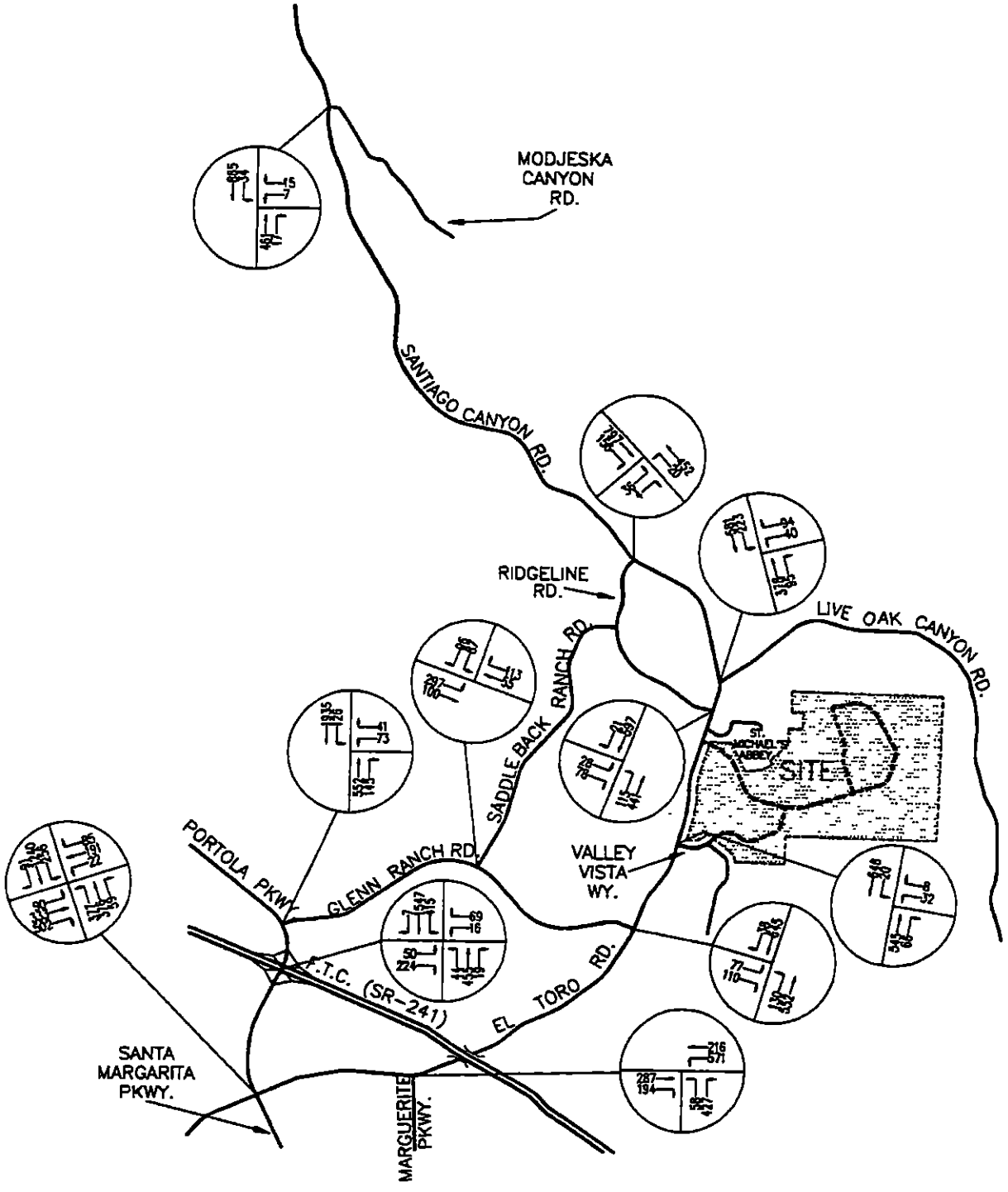
Existing A.M. Peak Hour Intersection Volumes

EXHIBIT No. 27

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Existing P.M. Peak Hour Intersection Volumes

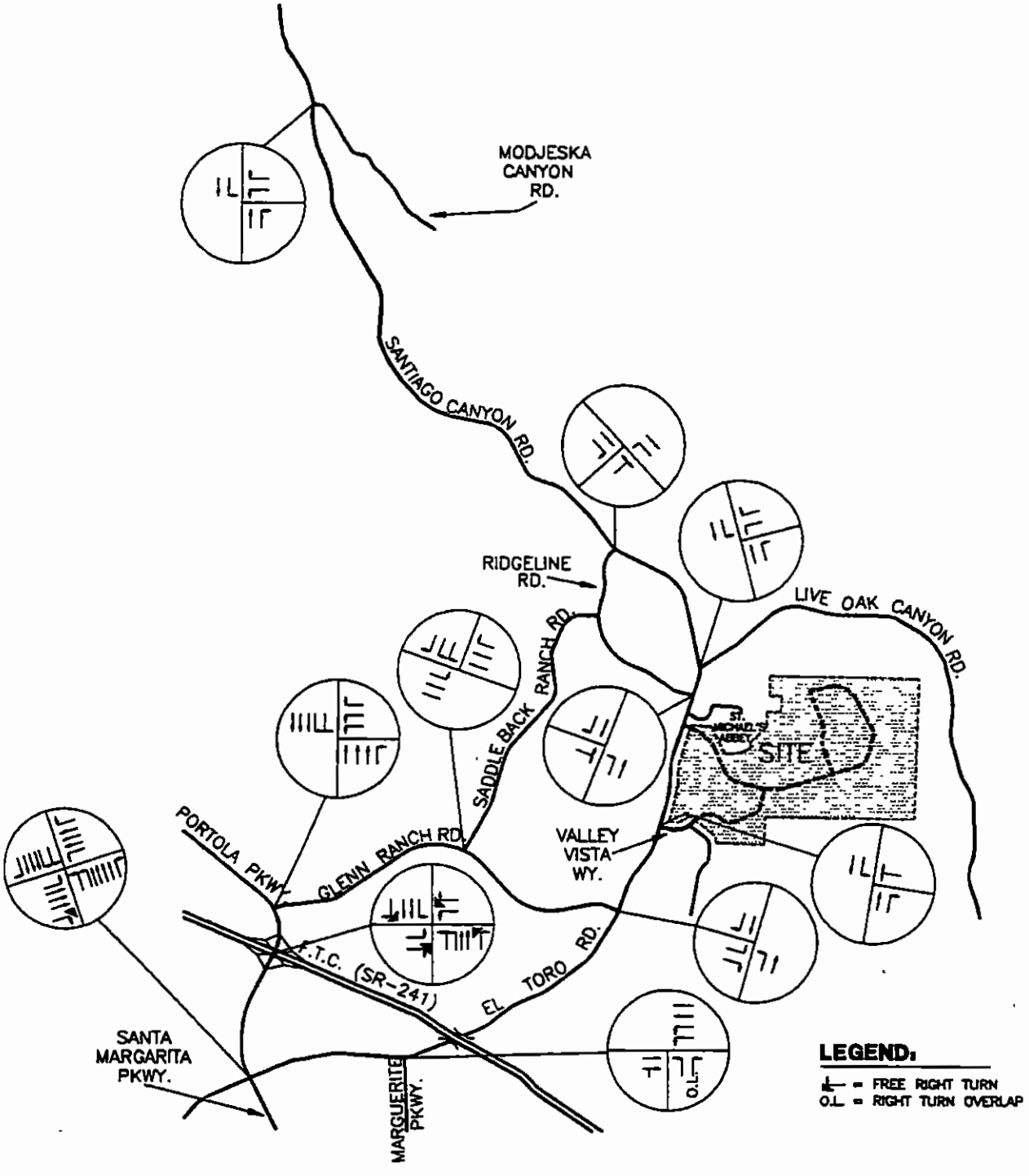
EXHIBIT No. 28

URBAN VISION

County of Orange P&DS

Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Existing Intersection Lanes

EXHIBIT No. 29

URBAN VISION

County of Orange P&DS

Scale: N/A
Source: RKJK

N

Trip Distribution/Assignment

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the proximity to the regional freeway system, existing/future residential development, other commercial and community facilities. The directional orientation of traffic was determined by evaluating existing and proposed land uses within the community and the Master Plan of Arterial Highways (MPAH).

Existing plus project intersection ICU/LOS is shown in Table 13.

Table 13
EXISTING PLUS PROJECT ICU/LOS

Intersection	PEAK HOUR ICU		PEAK HOUR LOS	
	AM	PM	AM	PM
Santiago Canyon Road (NS) at:				
• Modjeska Canyon Road (EW)	0.87	0.61	D	B
• Ridgeline Road (EW)	0.82	0.60	D	A
El Toro Road (NS) at:				
• Live Oak Canyon Road (EW)	0.78	0.49	C	A
• Ridgeline Road (EW)	0.68	0.62	B	B
• Project Entrance (EW)	0.62	0.57	B	A
• Valley Vista Way (EW)	0.64	0.59	B	A
• Glenn Ranch Road (EW)	0.57	0.69	A	B
Saddleback Ranch Road (NS) at:				
• Glenn Ranch Road (EW)	0.32	0.33	A	A
Marguerite Parkway (NS) at:				
• El Toro Road (EW)	0.34	0.49	A	A
Portola Parkway (NS) at:				
• Glenn Ranch Road (EW)	0.57	0.46	A	A
• Foothill Transportation Corridor (EW)	0.40	0.58	A	A
• El Toro Road (EW)	0.41	0.50	A	A

Trip distribution for this study has been based upon near-term conditions, based upon those highway facilities which are in place. The trip distribution patterns for the project are graphically depicted on Exhibit 30, 31. This assignment of traffic from the site to the adjoining roadway system has been based upon the site's trip generation, trip distribution and proposed arterial highway and local street systems. The Projected ADT volumes along El Toro Road in the vicinity of the site do not exceed 30,000 vehicles per day. The projected ADT's along El Toro Road between the Foothill Transportation Corridor (SR-241) and Live Oak Canyon Road are well within the Level of Service "C" volumes for a Primary (four-lane divided) Arterial highway facility.

As shown in Table 13. Intersections in the vicinity of the site are projected to continue to operate at Level of Service "D" or better during peak hours. A traffic signal is projected to be warranted at the intersection of El Toro Road/Project Entrance for existing plus project traffic conditions.

Year 2000 intersection ICU/LOS projections with and without the project and with and without improvements are shown in Table 15. As shown in Table 15, all intersections will operate at LOS D or better, except for the intersection of Portola Parkway at Foothill Transportation Corridor, which will operate at LOS E during morning peak hours for the with project/without improvements scenario. A traffic signal would be warranted at the intersection of Santiago Canyon Road at Modjeska Canyon Road for the Year 2000 without project traffic conditions.

Year 2020 intersection ICU/LOS projections with and without the project and with and without improvements are shown in Table 15a. As shown in Table 15a several intersections would operate at unacceptable levels of service in Year 2020 without improvements in place. With project improvements in place, all intersections would operate at acceptable levels of service. Improvements would include the ultimate widening of El Toro Road and Santiago Canyon Road to four through travel lanes (two in each direction)

Santiago Canyon Road Analysis

Pursuant to the County of Orange Growth Management Plan (GMP), segments of Santiago Canyon Road are required to function at a Level of Service "C" Capacity improvements along Santiago Canyon Road will be required in conjunction with future growth to achieve Level of Service "C". The Santiago Canyon Road Major Thoroughfare and Bridge Fee Program has been designed to provide up to $34 million in improvements to Santiago Canyon Road from Chapman Avenue to Live Oak Canyon Road. However, the March, 1994 Project Report for improvements to Santiago Canyon Road indicates that the total cost of improvements is approximately $52.3 million for a "limited project" scenario. To address the difference between the ultimate cost of $52.3 million and the fee program allocation of $34 million, the project must provide an additional contribution beyond the payment of normal fees based upon its traffic share. Santiago Canyon Road Project Share Analysis is shown in Table 14.

Table 14
SANTIAGO CANYON ROAD PROJECT SHARE ANALYSIS

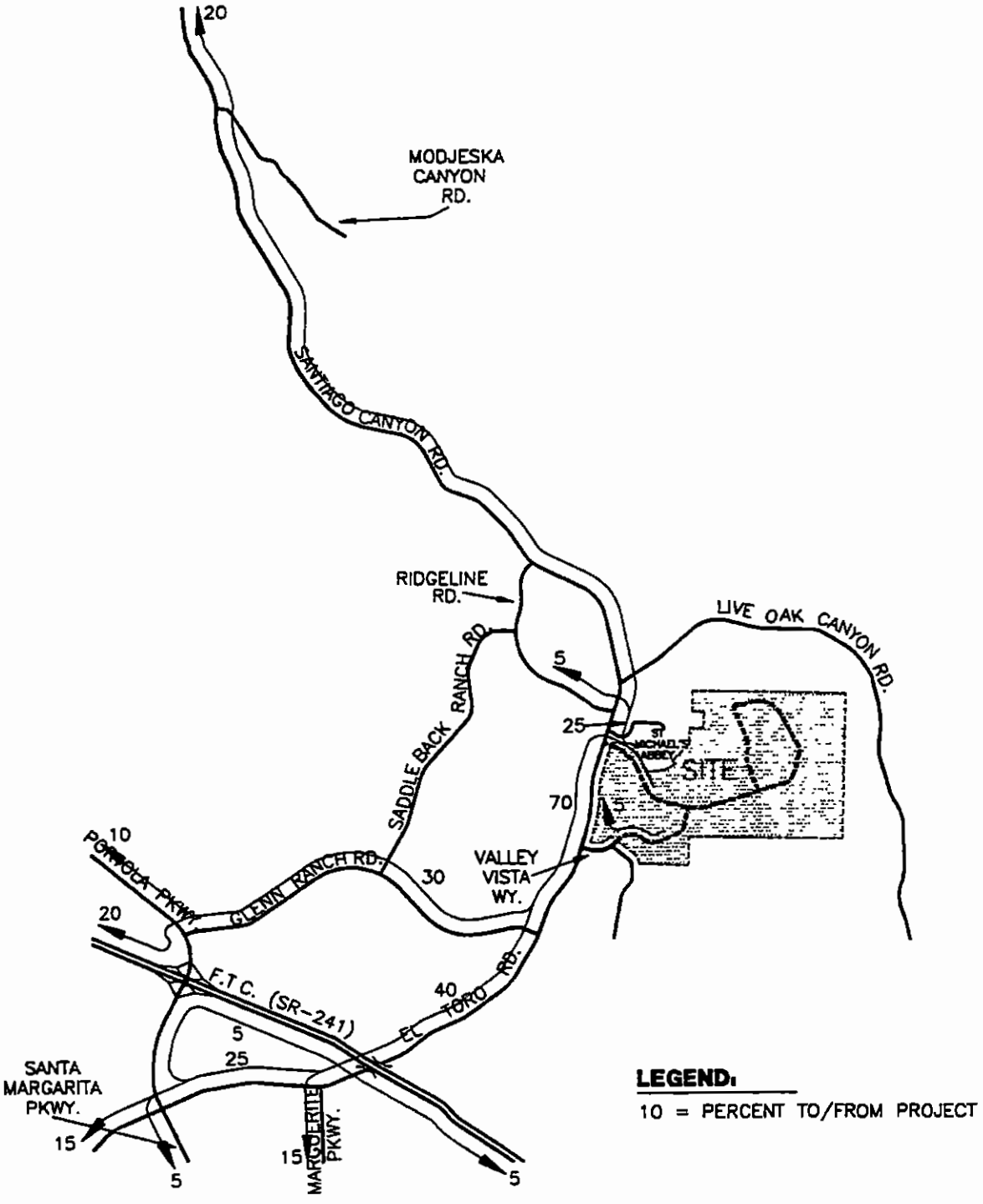
Volume Component	Roadway Segment					
	Live Oak Cyn. Rd. to Ridgeline Rd.		Ridgeline Rd. to Modjeska Cyn. Rd.		North of Modjeska Cyn. Rd.	
	AM	PM	AM	PM	AM	PM
Existing Volume (two way)	1,478	1,276	1,640	1,441	1,650	1,375
Project Volume (two way)						
-Residential	95	117	85	117	95	117
-Commercial	8	32	6	24	4	16
Project Increases						
-Residential	6 4%	9.2%	5.8%	8.1%	5.8%	8.5%
-Commercial	0.5%	2.5%	0.4%	1.7%	0.2%	1.2%

Impact Significance Criteria

The impact evaluation in this analysis focuses on intersection capacity, and uses peak hour intersection capacity utilization (ICU) values to express level of service (LOS). For the year 2010 evaluation, the GMP requires an evaluation of intersections where the project impact is greater than one percent. Satisfactory intersection operation is expressed as LOS D or better (ICU values from 0.00 to 0.90). Therefore, a significant circulation impact would occur if the project caused any intersection to exceed LOS D.

4.4.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Under existing plus project intersection ICU/LOS conditions, the surrounding circulation would continue to operate at acceptable levels of service.



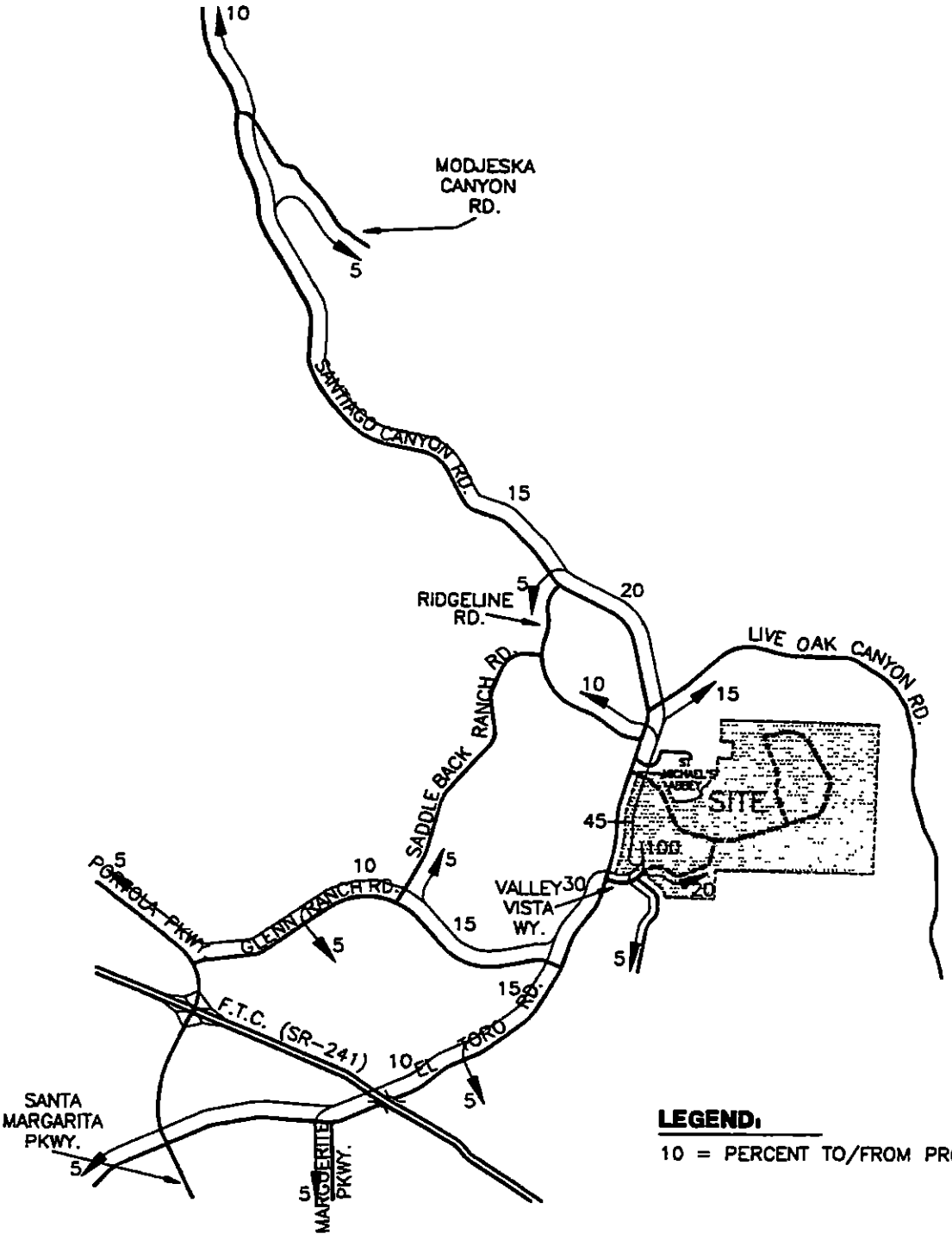
SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Project Residential Trip Distribution

EXHIBIT No. 30

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Project Commercial Trip Distribution

EXHIBIT No. 31

URBAN VISION

County of Orange P&DS

Scale: N/A

Source: RKJK

N

Table 15
YEAR 2000 INTERSECTION ICU/LOS
WITH/WITHOUT PROJECT, WITH/WITHOUT IMPROVEMENTS

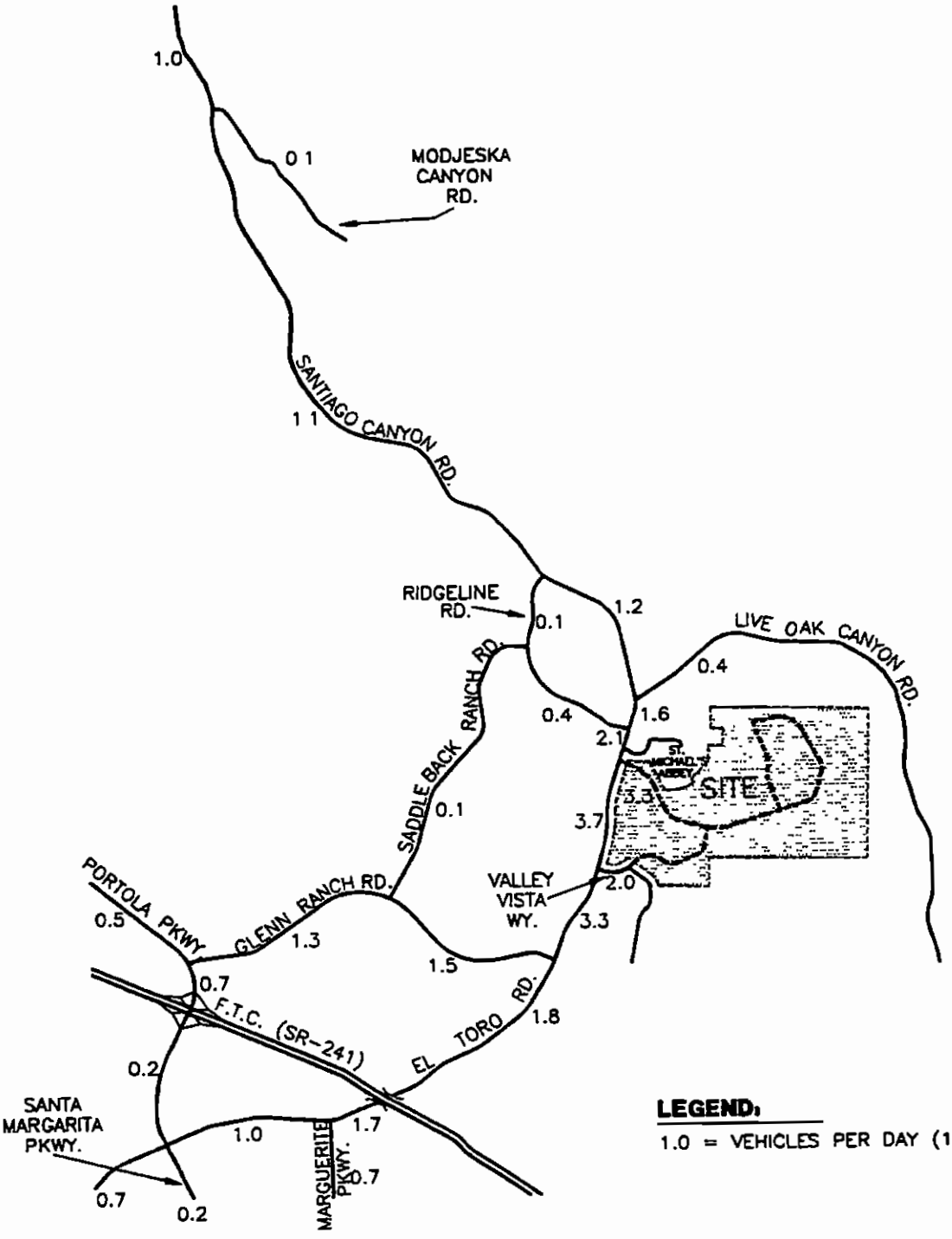
Intersection	Without Project Without Improvements				With Project Without Improvements				With Project With Improvements			
	Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Santiago Canyon Road (NS) at:												
• Modjeska Canyon Road (EW)	0.86	0.69	D	B	0.90	0.74	D	C	0.90	0.74	D	C
• Ridgeline Road (EW)	0.87	0.72	D	C	0 92	0.78	E	C	0.56	0.78	A	C
El Toro Road (NS) at:												
• Live Oak Canyon Road (EW)	0.80	0 60	C	A	0 84	0 63	D	B	0.84	0.63	D	B
• Ridgeline Road (EW)	0.70	0 62	B	B	0.75	0 69	C	B	0.75	0.69	C	B
• Project Entrance (EW)					0.74	0.62	C	B	0.74	0.62	C	A
• Valley Vista Way (EW)	0.67	0 52	B	A	0.73	0.65	C	B	0.73	0 65	C	B
• Glenn Ranch Road (EW)	0.62	0.75	B	C	0 65	0 83	B	D	0.65	0 83	B	D
Saddleback Ranch Road (NS) at:												
• Glenn Ranch Road (EW)	0.59	0.70	A	B	0.63	0.71	B	C	0.63	0.71	B	C

Intersection	Without Project Without Improvements				With Project Without Improvements				With Project With Improvements			
	Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Marguerite Parkway (NS) at:												
• El Toro Road (EW)	0.49	0.73	A	C	0.52	0.79	A	C	0.52	0.79	B	C
Portola Parkway (NS) at.												
• Glenn Ranch Road (EW)	0.90	0 75	D	C	0 93	0.76	E	C	0.85	0.75	D	C
• Foothill Trans Corridor (EW)	0.73	0.87	C	D	0.74	0.90	C	D	0.74	0.90	C	D
• El Toro Road (EW)	0 80	0.79	C	C	0.80 1	0.80	C	C	0.81	0.80	D	C

Table 15a
YEAR 2020 INTERSECTION ICU/LOS
WITH/WITHOUT PROJECT, WITH/WITHOUT IMPROVEMENTS

Intersection	Without Project Without Improvements				Without Project With Improvements				With Project Without Improvements				With Project With Improvements			
	Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Santiago Canyon Road (NS) at:																
• Modjeska Canyon Road (EW)	1 16	1.00	F	E	0 66	0.54	B	A	1 20	1.05	F	F	0.68	0.556	B	A
• Ridgeline Road (EW)	1.18	0.98	F	E	0 72	0 56	C	A	1.22	1.02	F	F	0.74	0.589	C	A
El Toro Road (NS) at																
• Live Oak Canyon Road (EW)	1.07	0.79	F	C	0.74	0 60	C	A	1 12	0.83	F	D	0.76	0.62	C	B
• Ridgeline Road (EW)	0.89	0 92	D	E	0.59	0 62	A	B	0.94	1.00	E	E	0 61	0 667	B	B
• Project Entrance (EW)	-	-	-	-	-	-	-	-	0.90	0.83 8	D	D	0 58	0538	A	A
• Valley Vista Way (EW)	0 87	0.79	D	C	0.53	0.45	A	A	0.93	0.94	E	E	0 57	0.54	A	A
• Glenn Ranch Road (EW)	0 94	1.24	E	F	0.54	0.82	A	C	0.97	1.31	E	F	0.56	0.82	A	D
Saddleback Ranch Road (NS) at:																
• Glenn Ranch Road (EW)	0.77	0.96	C	E	0.72	0.69	C	B	0 80	0.96	C	E	0 75	0.69	C	B

Intersection	Without Project Without Improvements				Without Project With Improvements				With Project Without Improvements				With Project With Improvements			
	Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS		Peak Hour ICU		Peak Hour LOS	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Marguerite Parkway (NS) at:																
• El Toro Road (EW)	0.74	1 33	C	F	0 65	0.78	B	C	0.77	1.38	C	F	0 68	0.79	B	C
Portola Parkway (NS) at																
• Glenn Ranch Road (EW)	1 21	1.04	F	F	0.90	0.88	D	D	1.22	1.10	F	F	0.90	0.87	D	D
• Foothill Trans Corridor (EW)	1.04	1.44			0.75	0.88	C	D	1.05	1.48	F	F	0.76	0.90	C	D
• El Toro Road (EW)	1.20	1.14	F	F					1.21	1.14	F	F				
with improvements	-	-	-	-	0.84	.095	D	E	-	-	-	-	0.86	0.97	D	E
with additional improvements	-	-	-	-	0 84	.087	D	D	-	-	-	-	0.86	0.89	D	D



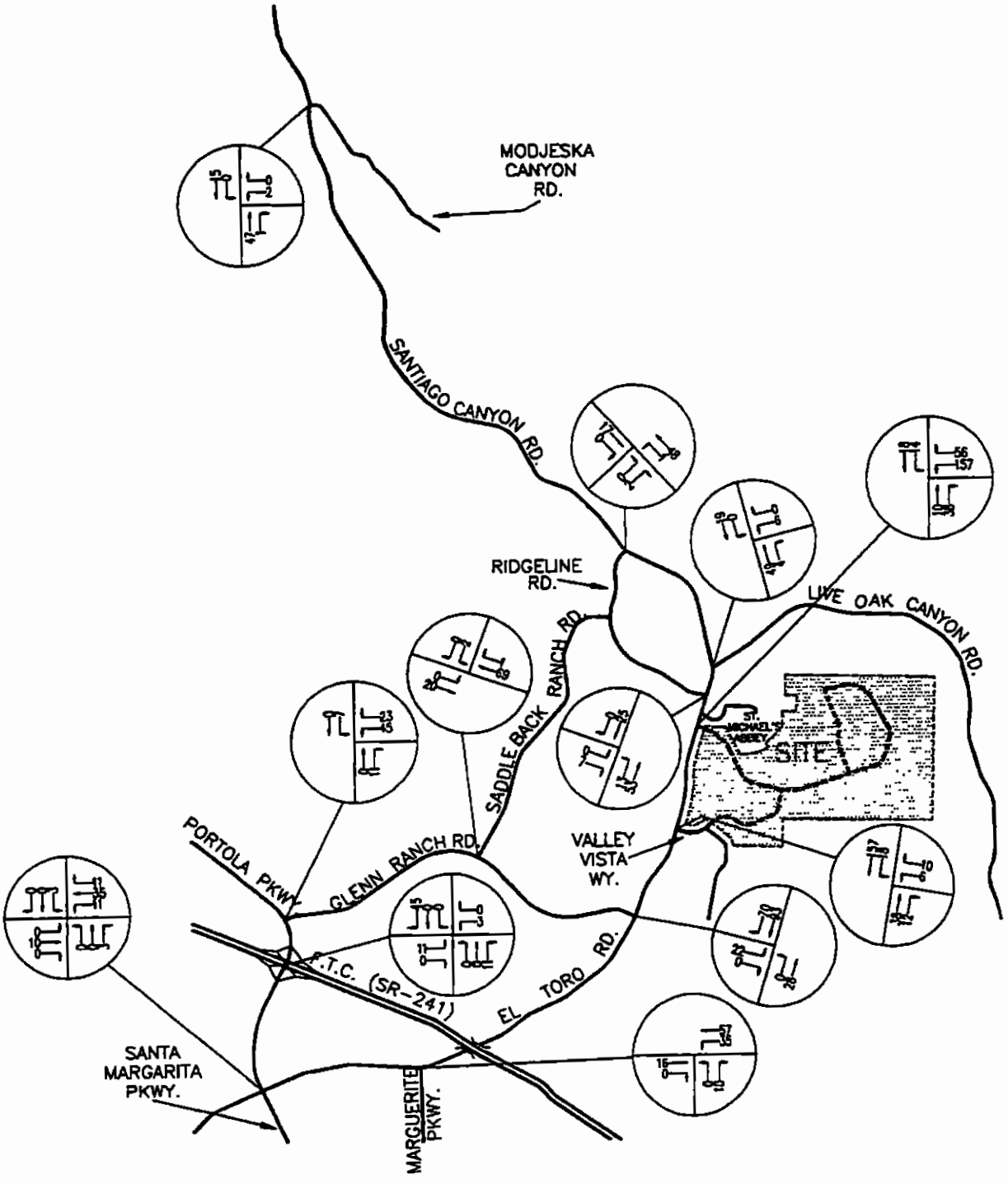
SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Project Average Daily Traffic (ADT)

EXHIBIT No. 32

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

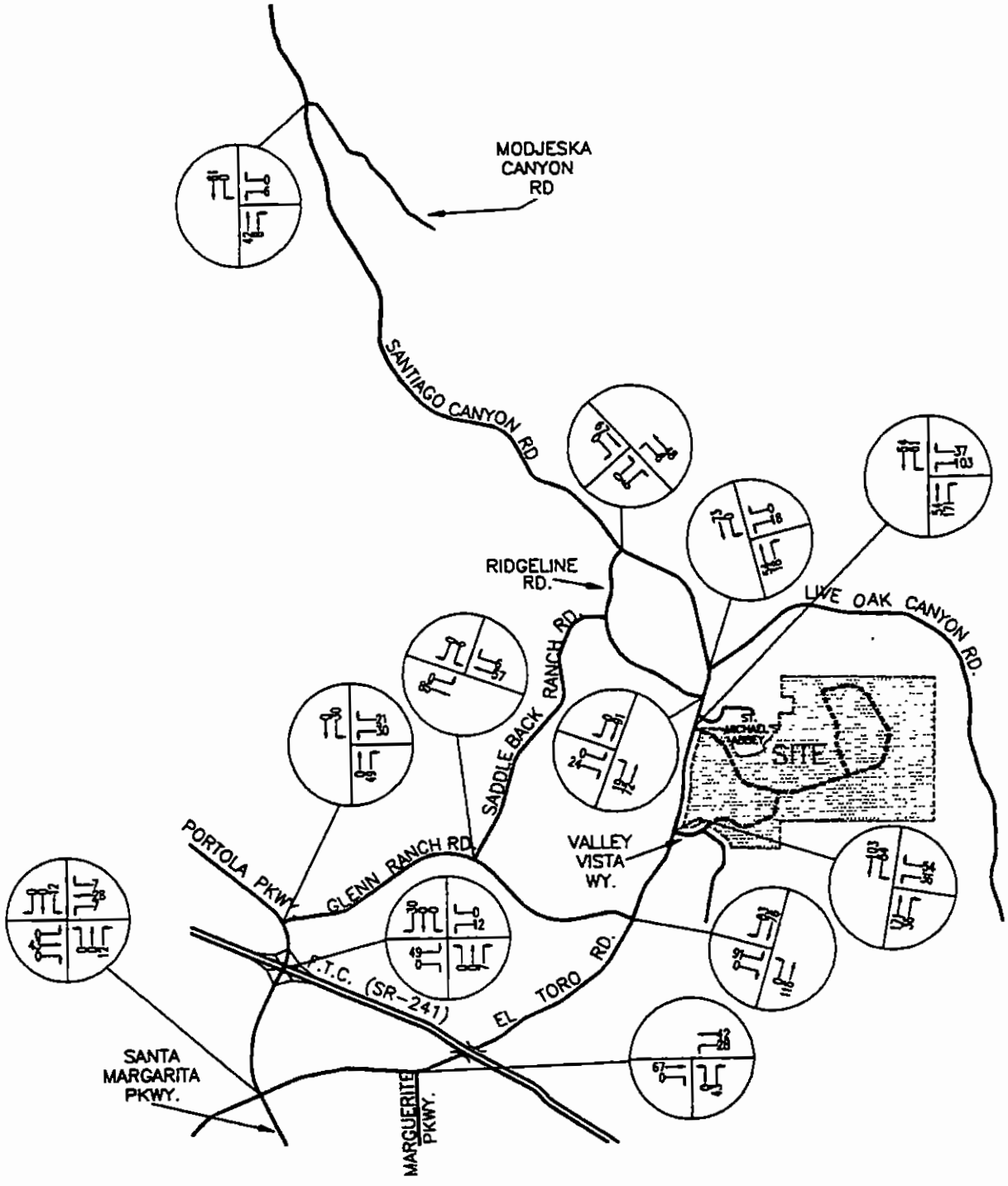
Project A.M. Peak Hour Intersection Volumes

EXHIBIT No. 33

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Project P.M. Peak Hour Intersection Volumes

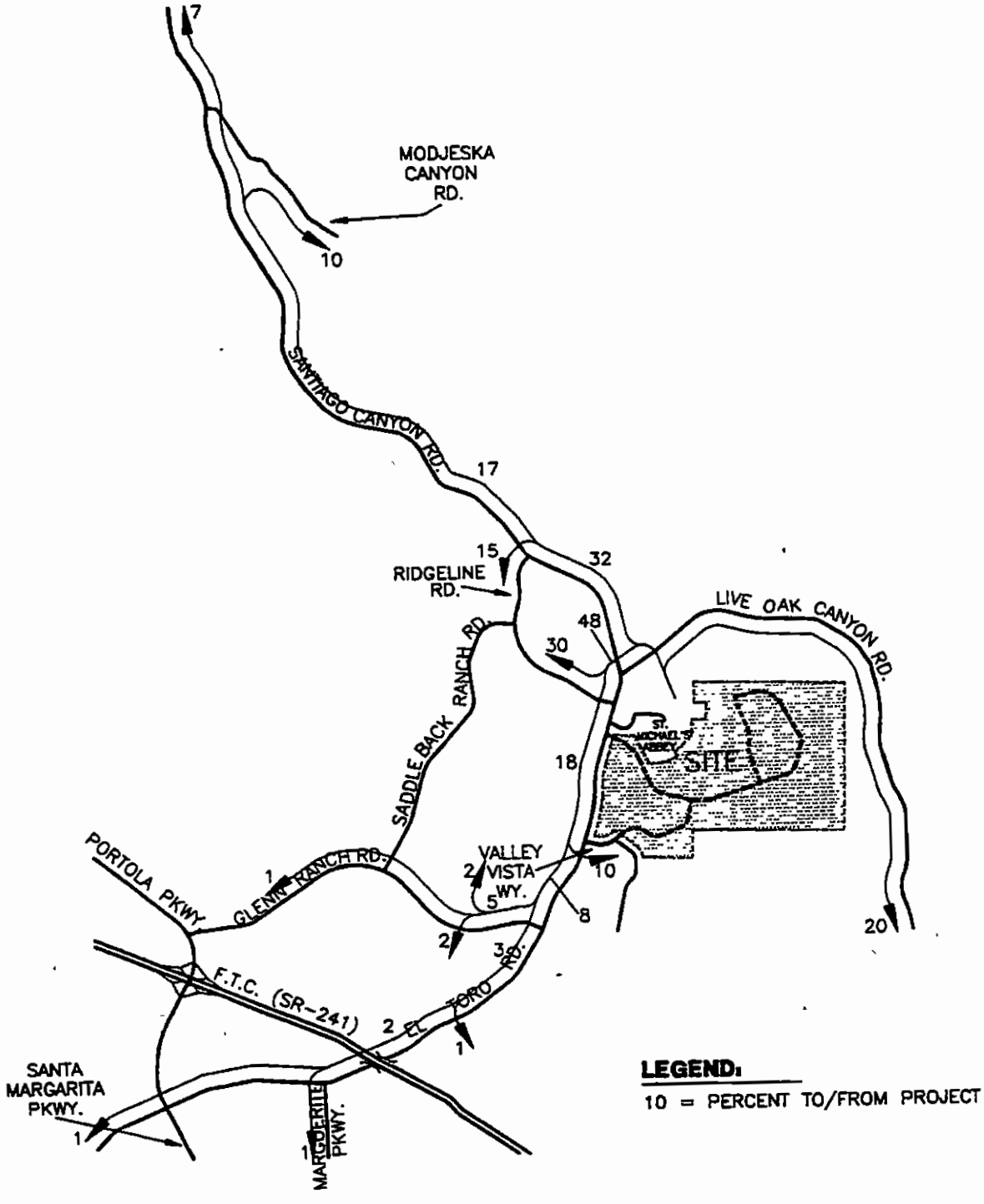
EXHIBIT No. 34

URBAN VISION

County of Orange P&DS

Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

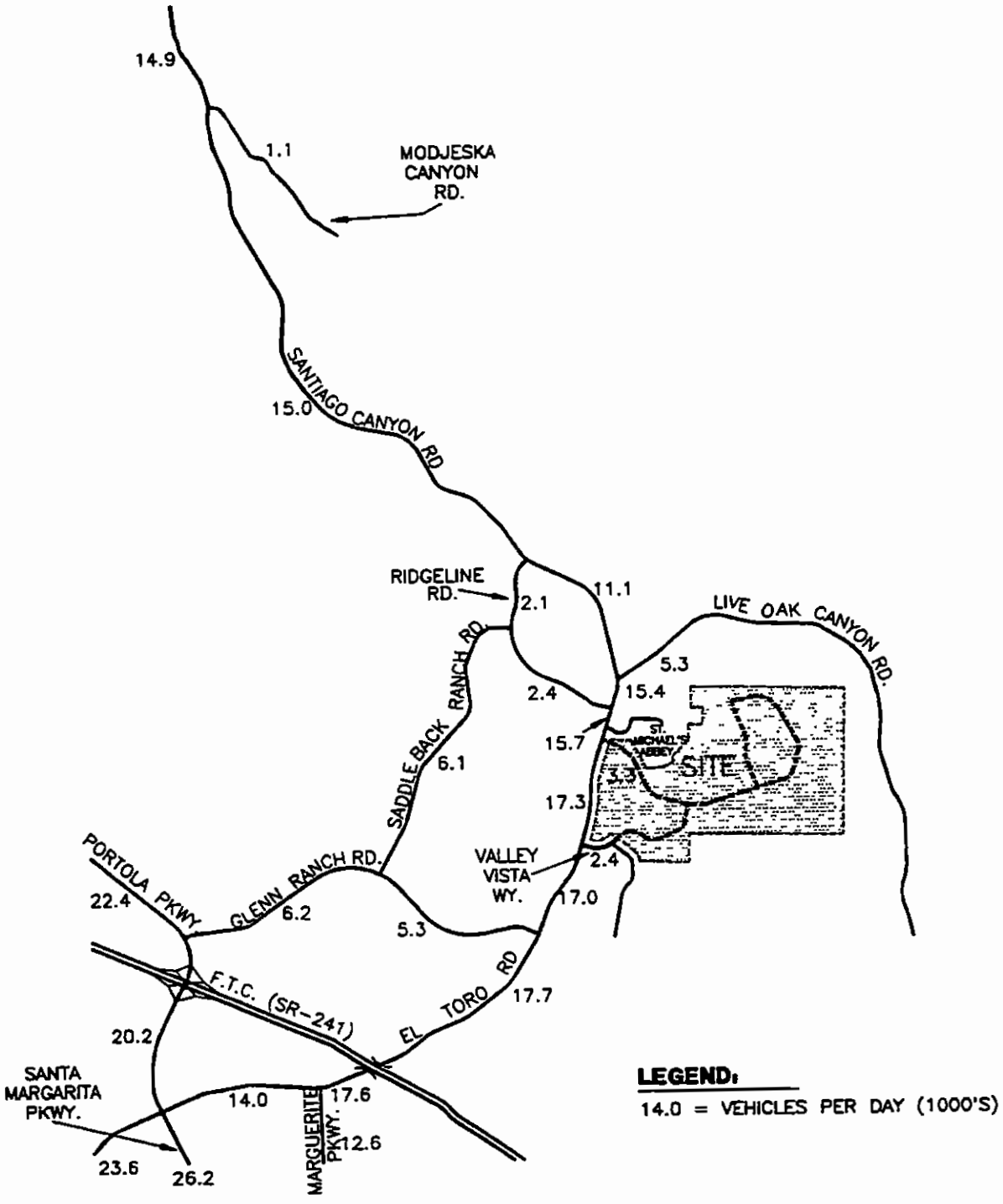
Other Development Trip Distribution

EXHIBIT No. 35

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Existing Plus Project Average Daily Traffic (ADT)

EXHIBIT No. 36

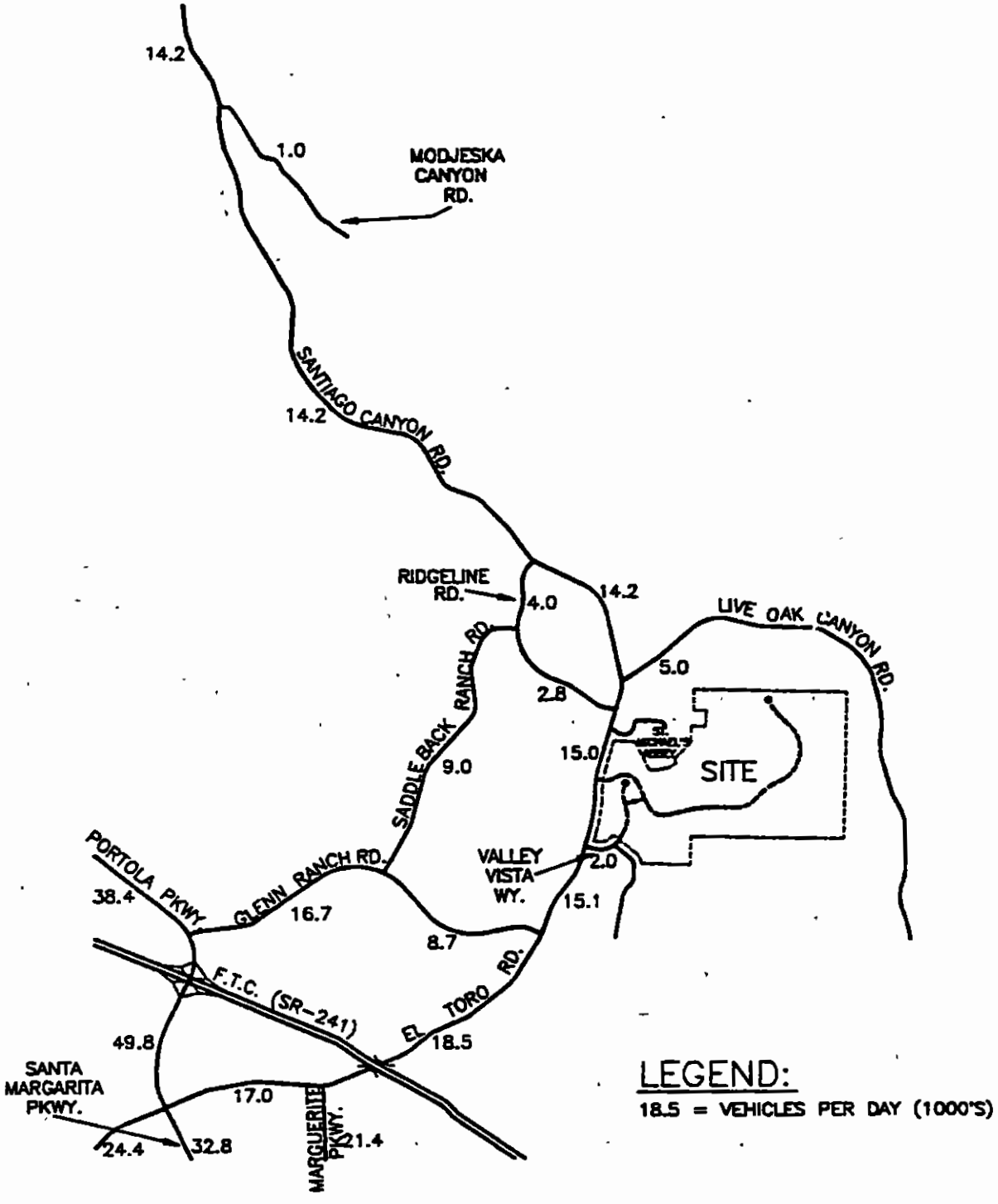
URBAN VISION

County of Orange P&DS

Scale: N/A

Source: RKJK

N



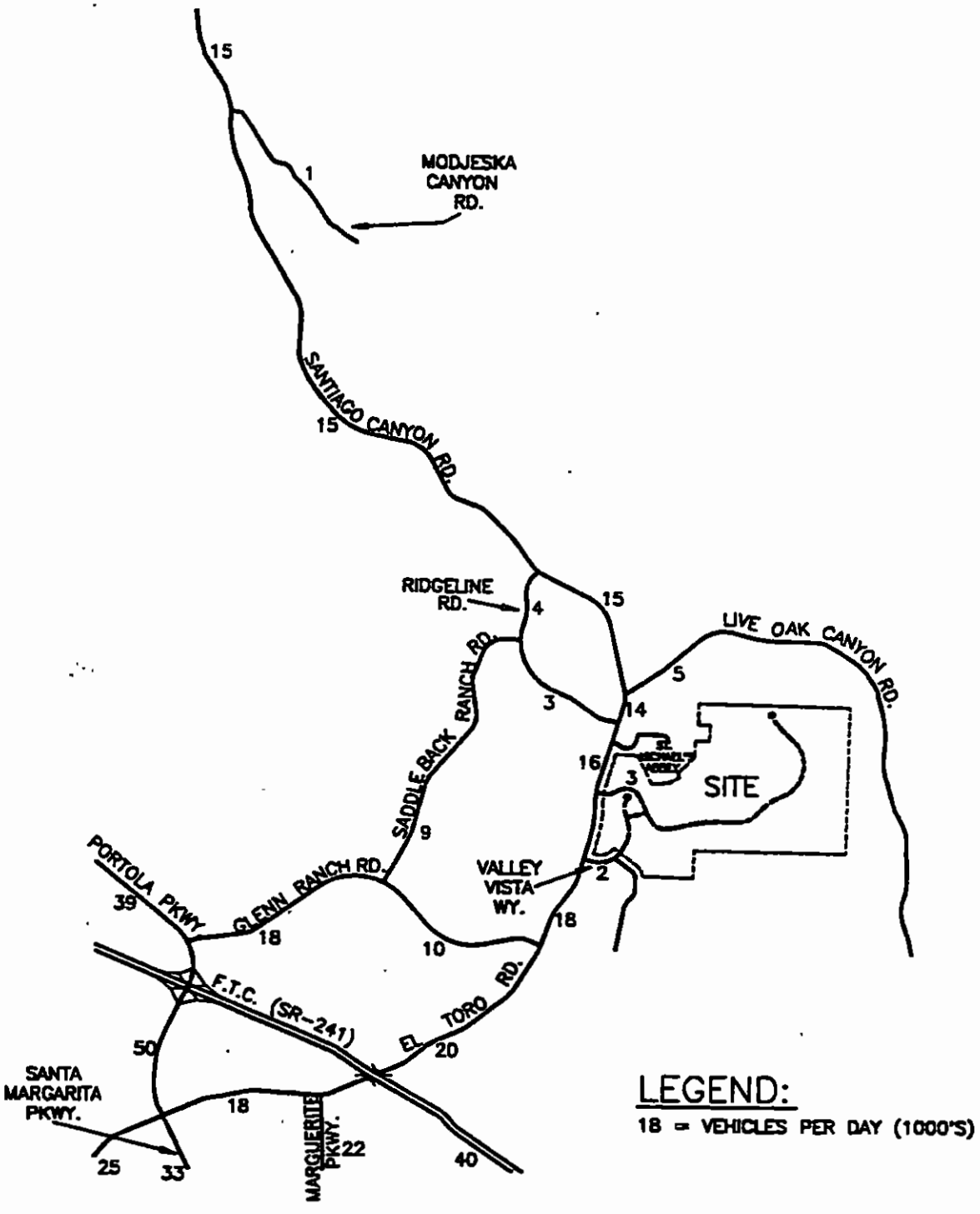
SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Future Baseline Average Daily Traffic Volumes (Year 2000)

EXHIBIT No. 37

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK



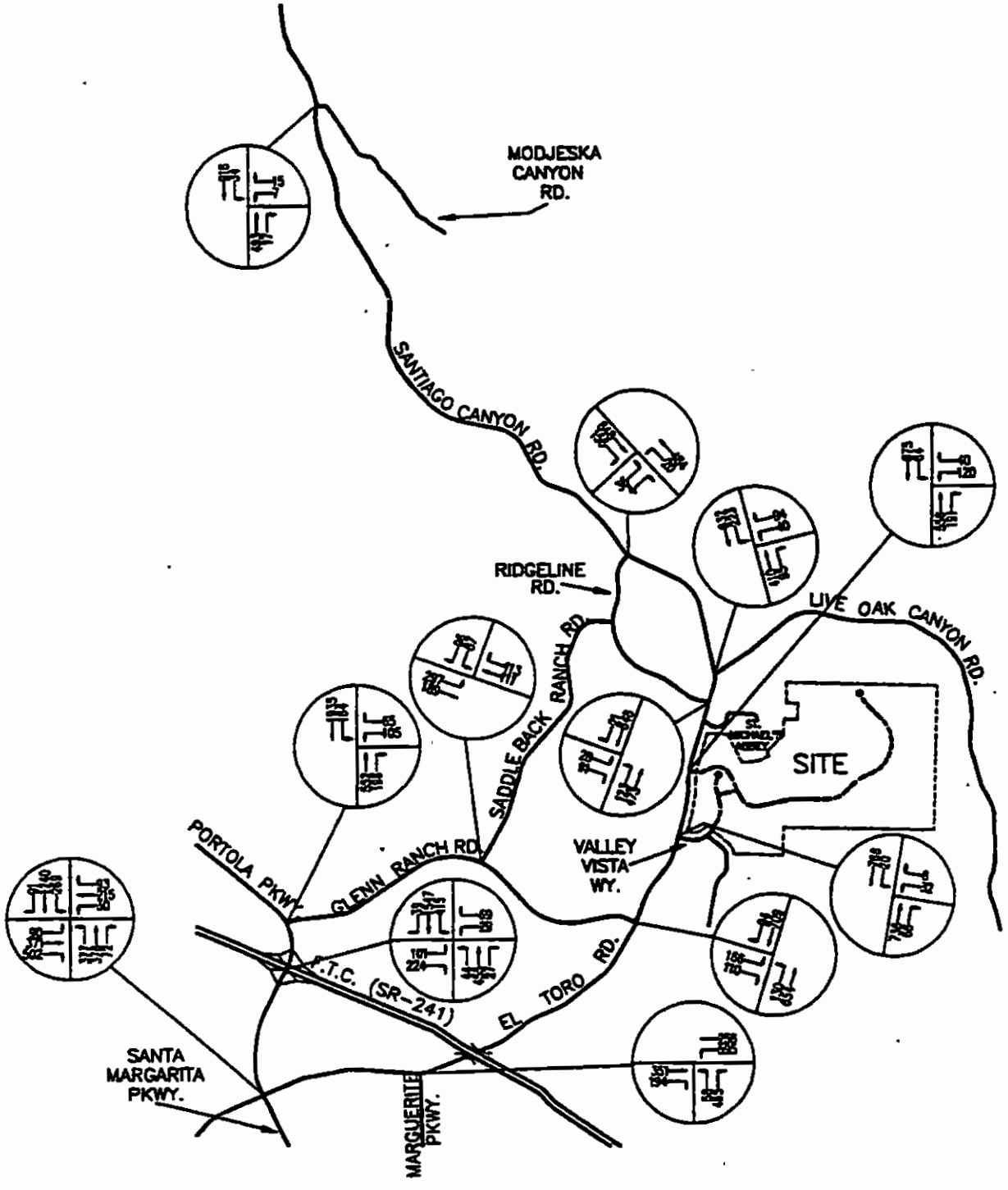
SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Future Baseline with Project Average Daily Traffic Volumes

EXHIBIT No. 38

URBAN VISION
County of Orange P&DS
Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

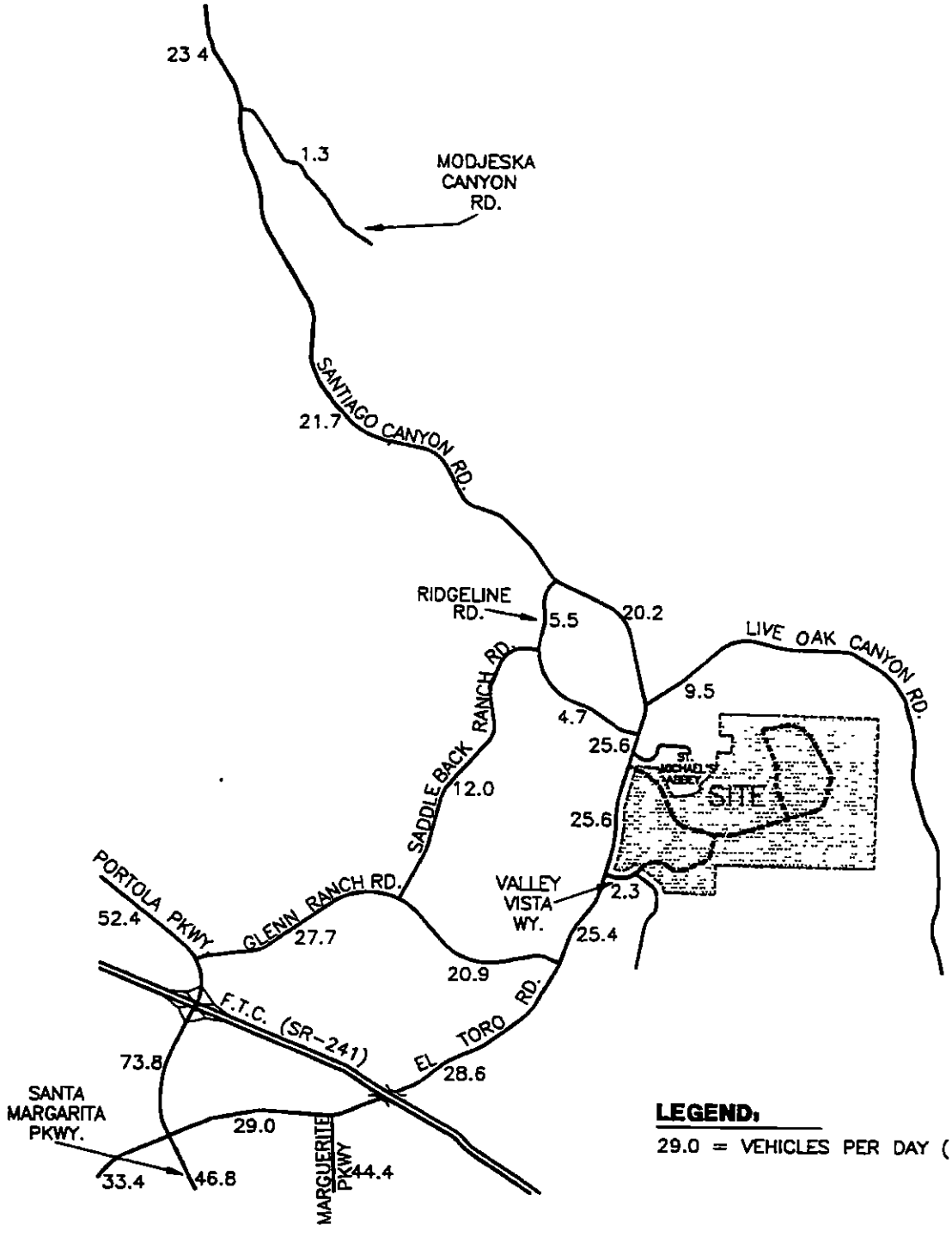
Future Baseline with Project Peak Hour Volumes

EXHIBIT No. 39

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS

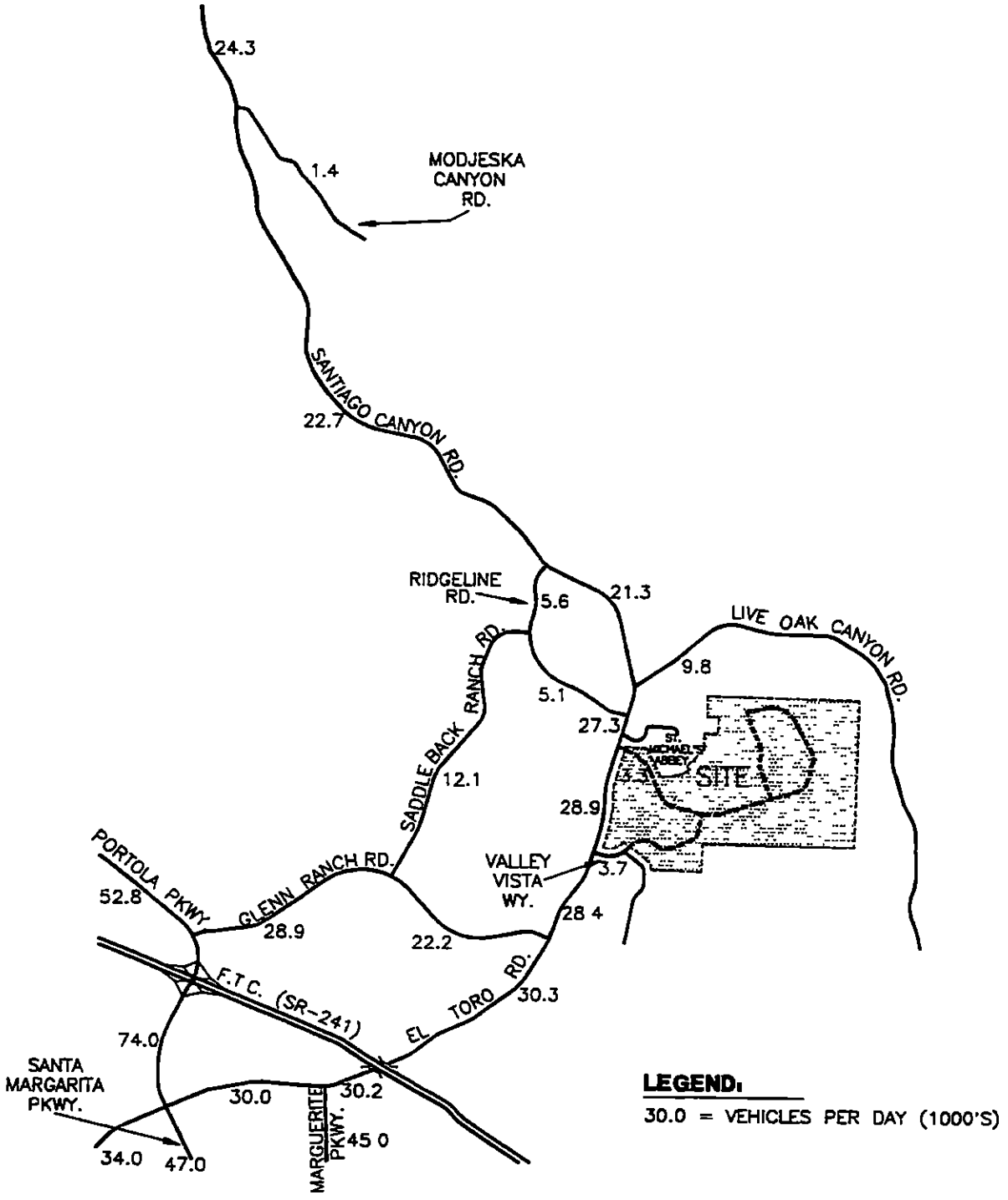
Scale: N/A

Source. RKJK

N

Year 2020 Average Daily Traffic (ADT) Without Project

EXHIBIT No. 40



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Year 2020 Average Daily Traffic (ADT) With Project

EXHIBIT No. 41

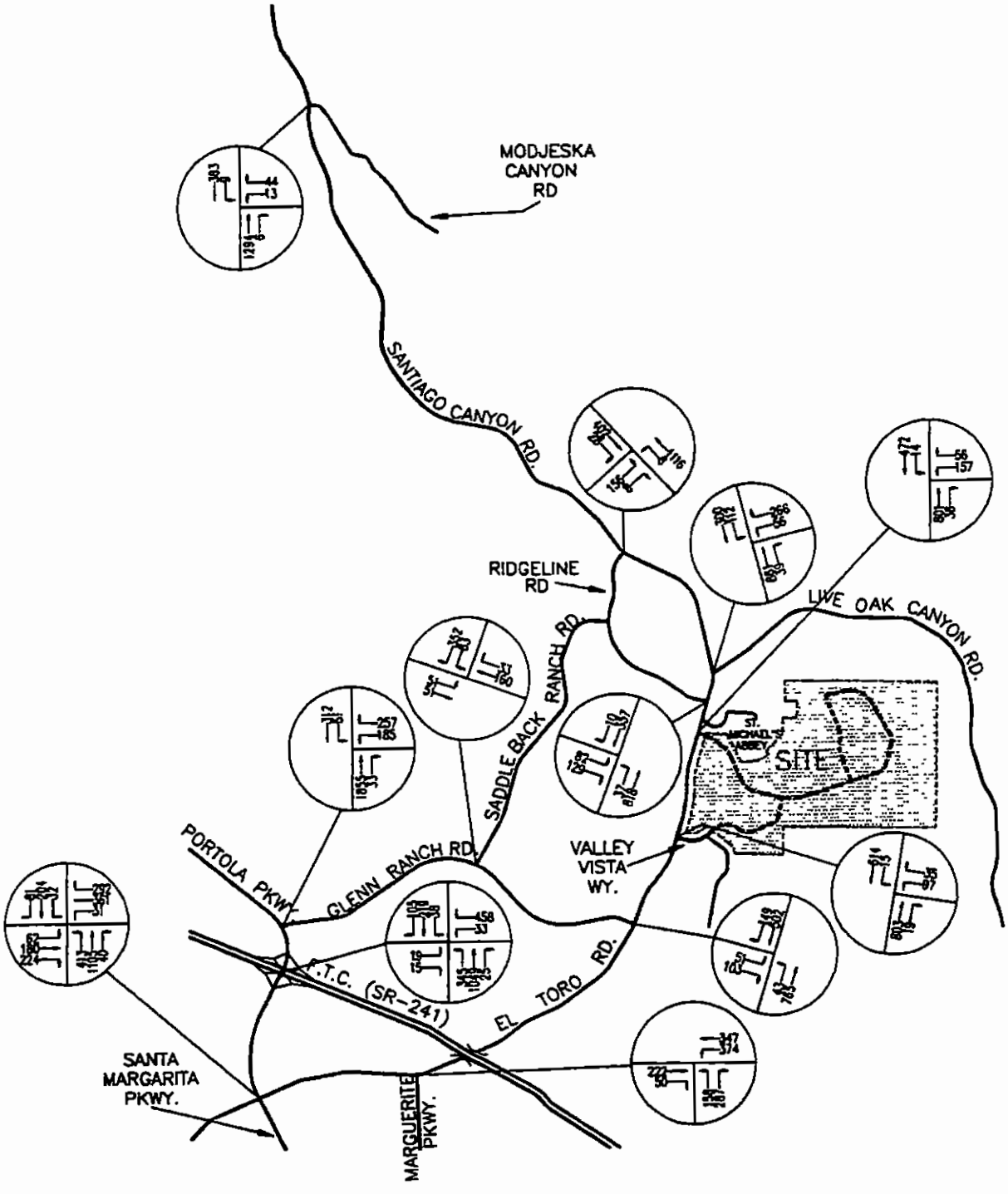
URBAN VISION

County of Orange P&DS

Scale: N/A

Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Existing Plus Project A.M. Peak Hour Intersection Volumes

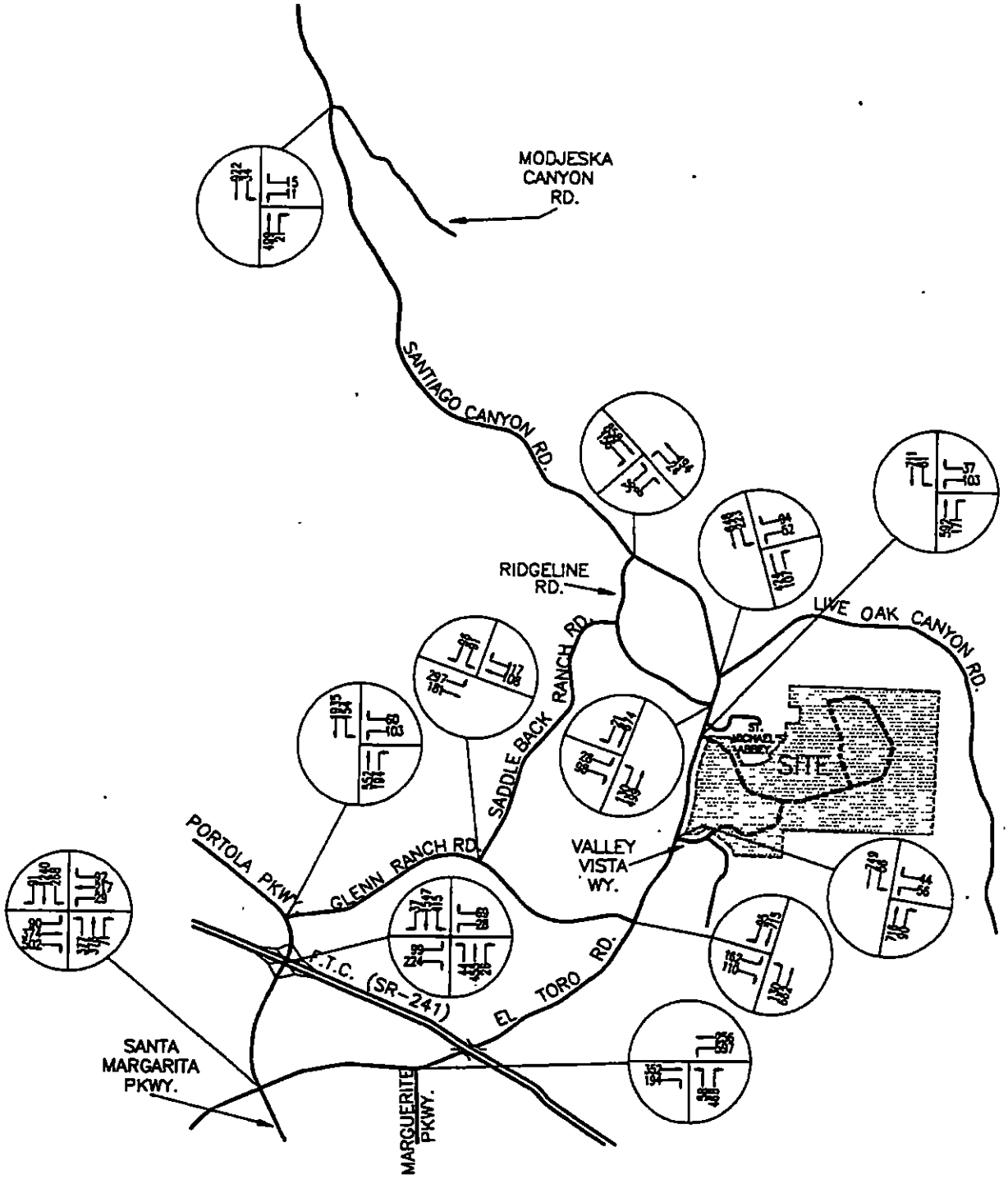
EXHIBIT No. 42

URBAN VISION

County of Orange P&DS

Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

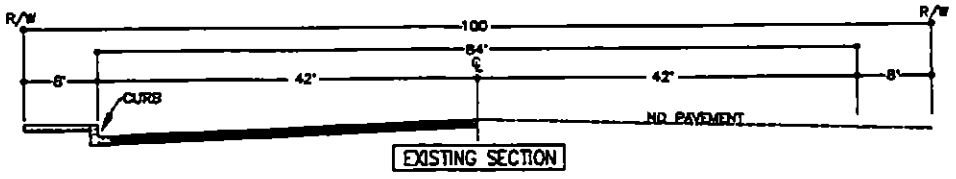
Existing Plus Project P.M. Peak Hour Intersection Volumes

EXHIBIT No. 43

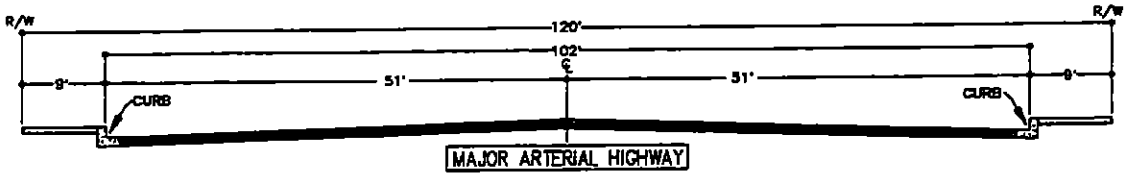
URBAN VISION

County of Orange P&DS
Scale: N/A
Source: RKJK

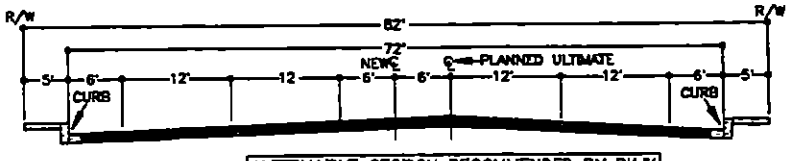
N



EXISTING SECTION



MAJOR ARTERIAL HIGHWAY



ALTERNATIVE SECTION RECOMMENDED BY RKJK

SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

OCMPAH Cross Sections / El Toro Road

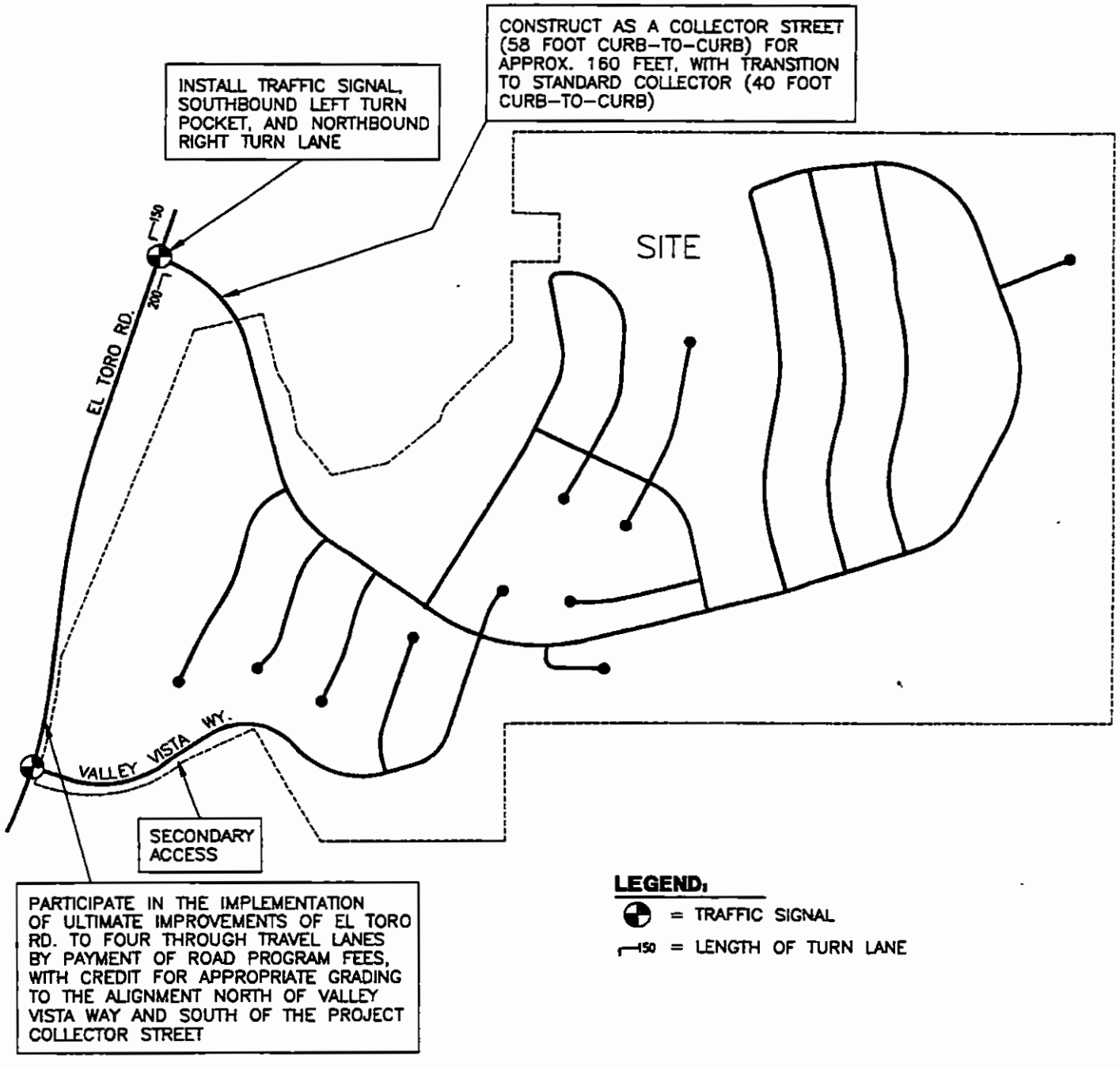
EXHIBIT No. 44

URBAN VISION

County of Orange P&DS

Scale: N/A
Source: RKJK

N



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

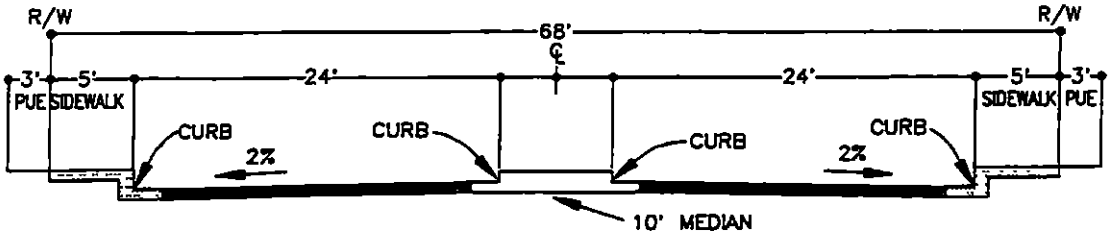
Circulation Recommendations

EXHIBIT No. 45

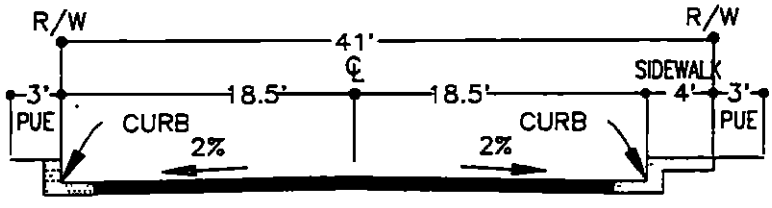
URBAN VISION

County of Orange P&DS

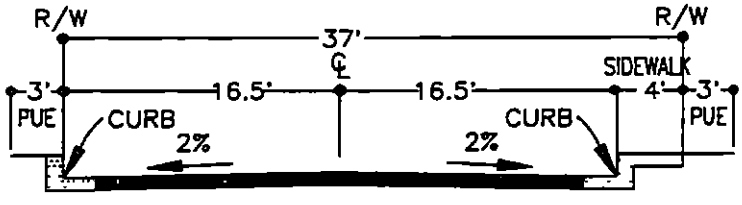
Scale: N/A
Source: RKJK



ENTRY RECOMMENDED BY RKJK



INTERIOR STREET



INTERIOR STREET

SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Project Street Sections

EXHIBIT No. 46

URBAN VISION

County of Orange P&DS

Scale: N/A
Source: RKJK

N

Year 2000 intersection conditions, without mitigation measures, would exceed Level of Service "D" significance criteria at the following intersection:

- Santiago Canyon Road at Modjeska Canyon/ Ridgeline Road
- Portola Parkway at Foothill Transportation Corridor
- El Toro Road at Live Oak Canyon Road/Glenn Ranch Road
- Portola Parkway at Glenn Ranch Road

Year 2020 intersection conditions, without mitigation measures, would exceed Level of Service "D" significance criteria at the following intersections:

- Santiago Canyon Road at Modjeska Canyon Road
- Santiago Canyon Road at Ridgeline Road
- El Toro Road at Live Oak Canyon Road
- El Toro Road at Ridgeline Road
- El Toro Road at Project Entrance
- El Toro Road at Glenn Ranch Road
- El Toro Road at Valley Vista Way
- Saddleback Ranch Road at Glenn Ranch Road
- Marguerite Parkway at El Toro Road
- Portola Parkway at Glenn Ranch Road
- Portola Parkway at Foothill Transportation Corridor
- Portola Parkway at El Toro Road

4.4.5 CUMULATIVE IMPACTS

The OCTAM/SCTM Year 2000/2020 model accounts for all cumulative projects within the region which could affect future traffic conditions. Refer to Section 4.4.3 for a complete analysis of cumulative impacts.

4.4.6 MITIGATION MEASURES

Project Design Features

Primary project access will be off of El Toro Road with an emergency access at Valley Vista Way.

PDF 4-1 The onsite circulation system is proposed as shown in Exhibit 45 to accommodate project related traffic generation, including design of the entry street as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The entry's cross-section shall be maintained for approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway. Secondary emergency only access will be provided via a gated connection to existing Valley Vista Way. Minimum fire access roadway width of 28 feet shall be required.

PDF 4-2 The entry street will be designed with a traffic signal and a southbound left-turn pocket and northbound right-turn lane. The applicant shall provide a cash deposit for the design and construction of the traffic signal.

PDF 4-3 All weather access to the proposed water tank shall be provided by the applicant. This access shall be designed with a minimum 28 foot width and a maximum grade of 10%.

Standard County Conditions and Mitigation Measures

SC 4-4 Prior to the issuance of any building permits, the applicant shall participate in design, construction, and/or financing of the cost of a traffic signal in the project vicinity in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-5 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Programs listed below, in a manner meeting the approval of the Manager, PF&R/Programs Division.

a. Foothill Circulation Phasing Program

b Prior to recordation of a final tract map, the subdivider shall enter into an agreement with the County of Orange for participation in a fee program (if adopted by the Board of Supervisors) for implementation of the Foothill/Eastern Transportation Corridor. Said agreement shall provide that:

1. The fee shall be $158.00 per trip end times the County standard trip end generation rate for the type of development proposed, times the number of units (footage) proposed, or the fee payable under the program, whichever is less.

2. Subdivider's obligation to pay fees would arise only after the County establishes the fee program, prior to issuance of building permits.

3. Subdivider's obligation to pay the fee would be extinguished if the fee program were not established within three (3) years of the date of issuance of the first building permit for subject development

4. Subdivider shall furnish surety bond, letter of credit, money or such other security approved by the Director, PF&RD, to assure payment of the fees related to subject development.

5. This condition shall be void if a trial court of competent jurisdiction, in a final judgement, or an appellate court, if the matter is appealed, sets aside a

condition imposed by the County which was substantially the same as said condition.

c. El Toro Road

d. Santiago Canyon Road

SC 4-6 Building permit issuance shall be phased in accordance with the Foothill Circulation Phasing Plan (FCPP) Development Phasing Plan, and shall also be subject to any other Board of Supervisors approved growth management phasing plan pertaining to the timely provision of public services and facilities.

SC 4-7 Building permit issuance shall be phased in accordance with any Board of Supervisors approved Growth Management Phasing Plan pertaining to the timely provision of public services and facilities.

SC 4-8 Prior to the issuance of any grading permits, adequate sight distance shall be provided at all street intersections per Standard Plan 1117, in a manner meeting the approval of the Manager, PF&R/Programs Division. This includes any necessary revisions to the plan such as removing slopes or other encroachments from the limited use area.

SC 4-9 Prior to the issuance of any certificates of use and occupancy, the developer shall construct the approved internal circulation improvements in a manner meeting the approval of the Manager, PF&R/Construction Division. Further, a copy of the approved plans shall be furnished to the Manager, Building Inspection Services, prior to the issuance of any certificates of use and occupancy.

SC 4-10 When monuments exist which control the location of subdivisions, streets or highways, or provide survey control, the monuments shall be located and referenced prior to any street construction or relocation, and shall be reset after construction as required by Section 8771 of the Business and Professions Code, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-11 Prior to issuance of a building permit, the applicant shall pay a cash fair share contribution for the design and construction of improving Santiago Canyon Road from Live Oak Canyon Road to Jamboree Road, in a manner meeting the approval of the Manger, PF&R/Programs Division. In addition, the applicant shall participate in the Santiago Canyon Road Safety Improvement Program.

SC 4-12 Prior to issuance of a building permit, the applicant shall design and construct roadway improvements for El Toro Road including a deceleration lane and a left turn pocket into the project entrance based on a 60 mph minimum design speed in a manner meeting the approval of the Manager, PF&R/Programs Division.

SC 4-13 Prior to issuance of a building permit, the applicant shall provide a cash deposit for

the difference in cost of designing and constructing the roadway improvements proposed with the project as compared to the costs associated with the ultimate configuration of El Toro Road, as determined by PDS/Environmental & Project Planning Services Division, all in a manner meeting the approval of the Manager, PF&R/Programs Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, Transportation Planning.

AM 4-14 El Toro Road lane improvements needed at the Project Entrance to serve Year 2000 and 2020 conditions shall be completed in conjunction with development.

AM 4-15 Traffic signing/striping shall be implemented in conjunction with detailed construction plans for the project. Verification of adequate parking shall be analyzed for the project site in conjunction with approval of the site plan.

AM 4-16 The project shall participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program (FCPP), El Toro Road Fee Program and the Santiago Road Fee Program.

Both existing traffic patterns and SCTM traffic projections for Years 2000 and 2020 indicate the attraction of Glenn Ranch Road, Portola Parkway, and the Foothill Transportation Corridor (SR-241) for increased traffic volumes in the project study area. North of the Foothill Transportation Corridor, El Toro Road can accommodate projected traffic volumes with the proposed project on four travel lanes divided by a raised or striped median.

4.4.7 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the proposed project, with the above outlined mitigation measures, would reduce all traffic/circulation impacts to less than significant. No unavoidable adverse impacts would occur.

4.5 AIR QUALITY

An Air Quality Impact Assessment has been prepared for the proposed project by Giroux & Associates, and is included in Appendix F.

4.5.1 EXISTING ENVIRONMENTAL SETTING

Meteorology/Climate

The project site's climate, as with all of Southern California, is dominated by the strength and position

of the semi-permanent high pressure center over the Pacific Ocean near Hawaii. It creates cool summers, mild winters, infrequent rainfall, it drives the cool daytime sea breeze, and it maintains comfortable humidities and ample sunshine. Unfortunately, the same atmospheric processes that create the desirable living climate combine to restrict the ability of the atmosphere to disperse the air pollution generated by the large population attracted in part by the comfortable climate. Portions of the Los Angeles Basin therefore experience some of the worst air quality in the nation for certain pollutants.

Temperatures in El Toro average 62°F annually. Daily and seasonal oscillations of temperature are small because of the moderating effects of the nearby oceanic heat reservoir. In contrast to the steady temperature regime, rainfall is highly variable, and confined almost exclusively to the "rainy" period from early November to mid-April. Rainfall in the project area averages around 12 inches annually with January typically the wettest month of the year.

Winds near the project site, based on long-term monitoring from nearby El Toro MCAS, display several characteristic regimes. During the day, especially in summer, winds are from the west at 7-9 miles per hour. At night, especially in winter, the land becomes cooler than the ocean and an offshore wind of 3-5 miles per hour develops. After sunrise, the wind direction rotates through the southeast and south at 5-7 miles per hour until the west wind again becomes dominant in the early afternoon. Such light winds lead to limited local ventilation and resulting in possibly elevated pollution levels near freeways, shopping centers and other traffic concentrations. The project site is, however, sufficiently separated from traffic stagnation conditions as to preclude the formation of any local pollution "hot spots." One other important wind regime occurs when a high pressure center forms over the western United States and creates strong, hot, dry, gusty, Santa Ana winds from the northeast and east across El Toro.

The net effect of the area wind pattern is that any locally generated air pollutant emissions will be carried from east to west at night, and then reverse from west to east by day. Although the daytime wind speeds are generally stronger and therefore better ventilate the project area, the offshore flow, once well-organized late in the evening and during the night, is also strong enough to minimize any significant localized air stagnation. The least ventilated period is typically during the morning and evening directional transition when winds become near calm until the new flow component becomes fully established.

In addition to winds that govern the horizontal rate and trajectory of any air pollutants, Southern California experiences several characteristic temperature inversions that control the vertical depth through which pollutants can be mixed.

Ambient Air Quality Standards (AAQS): In order to assess the air quality impact of any proposed new development such as Saddleback Meadows, that impact, together with baseline air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered adequate to protect the public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress or infection, such as asthmatics, the elderly, the very young, people weak from other disease or illness, and persons engaged in heavy work or exercise, called "sensitive receptors". Healthy adults can tolerate periodic exposure to air

pollution levels well above these standards before adverse health effects are observed. Recent research has shown, however, that adverse health effects may occur from life-long chronic exposure to ozone concentrations that just meet the hourly standard. Barely meeting clean air standards may, therefore, not be enough to insure public health protection until some additional margin of safety is established to overcome chronic exposure health effects.

The Clean Air Act Amendments of 1970 established national AAQS with states retaining the option to adopt more stringent standards or to include other pollution species. Because California already had standards in existence before federal AAQS were established, and because of unique meteorological problems in California, there is considerable diversity between state and federal standards currently in effect in California as shown in Table 16.

Baseline Air Quality: The project site is located within the South Coast Air Basin, which is currently classified as non-attainment status. Existing and probable future levels of air quality in the project area can be best inferred from ambient air quality measurements conducted by the South Coast Air Quality Management District (AQMD) at its El Toro monitoring station. Monitoring at this station include both regional pollutants such as dust and smog, as well as primary vehicular pollution levels such as carbon monoxide. Table 17 summarizes the last seven years of published data from this monitoring station. Although the entire spectrum of air pollutants is not monitored at the El Toro station, the following conclusions can be drawn from this data:

a. Photochemical smog (ozone) levels continue to exceed standards by a wide margin. However, the frequency of first stage smog episodes has ranged from 0-2 per year with a noticeable trend toward fewer episodes within the last several years. First stage smog episodes have dropped by 90% in 1987-93 from 1981-86. 1990 was the first year without a first-stage smog alert (one hour $\geq$ 0.20 ppm) since ozone monitoring began at El Toro 1992-94 was the first consecutive three-year period without a first-stage smog episode.

b. Annual maximum ozone levels rose in the early 1980's to close to the second stage alert level of 0.35 ppm for 1 hour, but they since dropped sharply to the sub-0.20 ppm level. For several years, El Toro had the worst smog of any station in Orange County. In the last several years, however, El Toro, and by inference all of the South County, had some of the lowest smog readings on record.

Table 16
AMBIENT AIR QUALITY STANDARDS

AIR POLLUTANT	STATE STANDARD CONCENTRATION/ AVERAGING TIME	FEDERAL PRIMARY STANDARD CONCENTRATION/ AVERAGING TIME	MOST RELEVANT EFFECTS
Ozone	0.09 ppm, 1-hr. avg. >	0.12 ppm, 1-hr avg.>	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals. (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans, (c) Vegetation damage; (d) Property damage
Carbon Monoxide	9 0 ppm, 8-hr avg. > 20 ppm, 1-hr avg. >.	9 ppm, 8-hr avg.> 35 ppm, 1-hr avg.>	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease, (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.25 ppm, 1-hr avg. >	0.053 ppm, ann. avg.>	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg.> 0.25 ppm, 1-hr. avg. >	0.03 ppm, ann. avg.> 0.14 ppm, 24-hr avg.>	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM_{10})	30 $\mu g/m^3$, ann. geometric mean > 50 $\mu g/m^3$, 24-hr average>	50 $\mu g/m^3$, annual arithmetic mean > 150$\mu g/m^3$, 24-hr avg.>	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Sulfates	25 $\mu g/m^3$, 24-hr avg. >=		(a) Decrease in ventilatory function, (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead	1.5 $\mu g/m^3$, 30-day avg. >=	1.5 $\mu g/m^3$, calendar quarter>	(a) Increased body burden, (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to reduce the visual range to less than 10 miles at relative humidity less than 70 percent, 8-hour average (10am - 6pm)		Visibility impairment on days when relative humidity is less than 70 percent

Table 17
Air Quality Monitoring Summary - El Toro Monitoring Stations (1989-95)
(Number of Days Standards Were Exceeded, and Maximum Levels During Such Violations
Entries shown as ratios = samples exceeding standard/samples taken)

Pollutant/Standard	1989	1990	1991	1992	1993	1994	1995
Ozone:							
1-Hour > 0.09 ppm (a)	30	32	29	31	22	16	15
1-Hour > 0.12 ppm (b)	7	11	10	9	7	5	1
1-Hour ≥ 0.20 ppm ©	2	0	1	0	0	0	0
Max 1-Hour Conc. (ppm)	0.23	0.19	0.24	0.16	0.16	0.18	0.15
Carbon Monoxide:							
1-Hour > 20. ppm (a)	0	0	0	0	0	0	0
8-Hour > 9. ppm (a,b)	0	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	9	9	8	10	7	8	6
Max. 8-Hour Conc. (ppm)	5.1	5.6	4.8	7.3	4.1	5.4	4.1
Inhalable Particulates: (PM-10)							
24-Hour > 50 $\mu g/m^3$ (a)	20/60	16/55	9/59	5/60	7/61	7/59	11/60
24-Hour > 150 $\mu g/m^3$ (b)	0/60	0/55	0/59	0/60	0/61	0/59	0/60
Max. 24-Hour Conc. ($\mu g/m^3$)	88.	88.	94.	83.	115.	91.	122.

Source. South Coast Air Quality Management District, El Toro Monitoring Station, El Toro Road @ Jeronimo Road.

(a) = California ambient air quality standard
(b) = National ambient air quality standard
(c) = California first-stage smog episode alert level.

c. Measurements of carbon monoxide have shown relatively low baseline levels for a monitoring station located near two busy arterials (El Toro Road and Jeronimo Road). With lower traffic volumes and more complex terrain reducing stagnation potential, CO levels near Saddleback Meadows are probably even lower than the AQMD readings at the El Toro monitoring station.

d. Respirable dust (PM-10) levels periodically exceed the state standard, but the less stringent

federal PM-10 standard has never been violated since PM-10 measurements began at El Toro.

Air Quality Planning

The Federal Clean Air Act (1977 Amendments) stated that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan that demonstrates the steps needed to bring the area into compliance with all national standards by December 31, 1987. In the South Coast Air Basin (SCAB), the agencies designated to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies adopted an Air Quality Management Plan (AQMP) in 1979 and revised it in 1982 to project attainment of the standards in 2000. However, the EPA was required to disapprove the 1982 AQMP because it had not shown attainment by 1987, as required by the 1977 Clean Air Act Amendments (1977 CAAA).

Under court order, another AQMP revision was adopted by SCAG and the SCAQMD in 1989. The 1989 AQMP projected attainment of all national standards by the year 2007. The 1989 AQMP was again not approved by the federal Environmental Protection Agency (EPA) for incorporation in the State Implementation Plan (SIP) because the 2007 deadline for compliance was inconsistent with the 1977 CAAA.

The 1989 AQMP relied in part on technology which had not yet been invented to meet its year 2007 target. It called for stricter controls on automobiles, paints and coatings, new industries, and transportation usage. The plan was divided into three tiers, with Tier I representing measures which were available for immediate implementation, Tier II consisting of measures that needed further development but were based on known technology, and Tier III representing emission reduction measures that were dependent on the development of new technology, including heavy reliance on clean fueled vehicles.

In 1988, the California Legislature enacted the California Clean Air Act (CCAA). The CCAA requires that regional emissions be reduced by 5 percent per year, averaged over 3 year periods, until attainment can be demonstrated. Each area that does not currently meet a national or state ambient air quality standard is to prepare a plan which demonstrates how the 5 percent reductions will be achieved.

In July 1991, the SCAQMD adopted a new AQMP which was prepared to meet the CCAA requirements. Although the 1991 AQMP deferred the attainment date to 2010, consistent with the 1990 federal Clean Air Act, it contained fewer Tier III measures, relying on the adoption of new motor vehicle controls by the California Air Resources Board (ARB) which will result in cars by 2003 which are 80 percent cleaner than those sold in 1990.

The 1990 Federal Clean Air Act requires that revised SIPs be prepared with a sliding schedule of attainment dates depending upon the severity of existing air quality. Southern California has the worst smog in the country, and therefore has the longest amount of time to achieve clean air (2010). The 1991 AQMP was modified in 1994 and submitted in November, 1994 as the SCAB portion of the California SIP. A court-ordered requirement for substitution of a more draconian Federal

Implementation Plan (FIP) was reversed by the U. S. Congress in 1995. The 1994 SIP submittal is therefore the currently operable air quality plan for the region.

A residential development project such as Saddleback Meadows relates to the air quality planning process through the growth forecasts that were used as inputs into the regional transportation model. If a proposed development is consistent with those growth forecasts, and if all available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the air quality impact on a regional basis should be considered as less than significant. The AQMP also contains a number of land use and transportation control measures (TCMs). Many of these measures can not be implemented on any single development basis because they require an integration of all development and all transportation planning. The effectiveness of many TCMs is expected to increase over the next decade. AQMP consistency on a single development basis is thus more a matter of facilitating or providing the infrastructure for TCM implementation than of actually specifically being solely responsible to carry out regionally comprehensive AQMP measures.

4.5.2 EFFECTS FOUND TO BE INSIGNIFICANT

The following air quality effects were found to be less than significant as determined by the Initial Study/Environmental Assessment contained in Appendix C of this EIR. These factors are not evaluated in this EIR.

- The project would not create objectionable odors.

4.5.3 PROJECT IMPACTS

The analysis methodology utilized procedures outlined in the SCAQMD 1993 "CEQA Air Quality Handbook" where appropriate. In areas where more site-specific information was available beyond the default values recommended in the handbook, they were used to supplement the SCAQMD-suggested input parameters.

Vehicular emissions were calculated using the SCAQMD "MAAQI" computer model. Microscale emissions impacts were calculated using one generic run of the CALINE4 computer model adjusted for site-specific traffic volumes, travel speeds and emission data for intersections near Saddleback Meadows potentially affected by project-related traffic.

Many air quality impacts from dispersed mobile sources, i.e., the dominant pollution generators in the basin, often occur hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual source is generally immeasurably small.

Significance Impact Criteria

Criteria for determining the potential significance of new air quality impacts are based on Federal, state and local pollution standards/regulations. Impacts are considered potentially significant if project emissions meet any of the following criteria:

A. If the project is capable of an increase in daily emissions that exceeds the following SCAQMD recommended threshold criteria:

Table 18
SCAQMD RECOMMENDED SIGNIFICANCE THRESHOLD CRITERIA[8]

Pollutant	Operational Emissions	Construction Emissions
Reactive Organic Gases (ROG)	55 lbs/day	75 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Suspended Particulates (PM_{10})	150 lbs/day	150 lbs/day
Nitrogen Oxides (NO_x)	55 lbs/day	100 lbs/day
Sulphur Oxides (SO_x)	150 lbs/day	150 lbs/day

B. If project emissions increase ambient carbon monoxide levels from below the NAAQS/CAAQS to above these standards.

C. If project emissions result in the accedence of any State, Federal or local ambient standards.

These thresholds do not take into account several important considerations, namely:

1. Emission levels from one large project may exceed thresholds while those from numerous smaller projects with identical emissions might not, even though the regional impact is the same.

2. Large developments have a greater opportunity to effectively implement TCMs because of a greater potential participant pool in trip/VMT diversion programs.

3. Project-related emissions and their regional impact may already have been incorporated into regional growth projections.

4. Emissions generated in or near El Toro have essentially the same regional air quality impact if they were released in a nearby community. If the anticipated demand for residential use is not met at Saddleback Meadows but in some other community, the no-project alternative will have basically the same regional air quality impact.

Additional indicators should be used as screening criteria to evaluate the need for further analysis with

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[8] *The SCAQMD recommended significance thresholds listed above are found in the District's revised CEQA Air Quality Handbook, adopted in February, 1993.*

respect to air quality. Whenever possible, the project should be evaluated in a quantitative analysis; otherwise a qualitative analysis is appropriate. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation;
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP;
- Project could generate vehicle trips that cause a CO hot spot;
- Project might have the potential to create or be subjected to objectionable odors;
- Project could have hazardous materials on site and could result in an accidental release of air toxic emissions;
- Project could emit an air toxic contaminant regulated by District rules or that is on a federal or state air toxic list;
- Project could involve disposal of hazardous waste;
- Project could be occupied by sensitive receptors near a facility that emits air toxics or near CO hot spots;
- Project could emit carcinogenic air contaminants that could pose a cancer risk.

Project-Related Sources of Potential Impact

Intensification of land uses in Orange County potentially impacts ambient air quality on two scales of motion. As cars drive throughout Southern California, the small incremental contribution to the basin air pollution burden from any single vehicle is added to that from several million other vehicles. The impact from this project, even if it generates a significant number of new vehicle trips, is very small on a regional scale. Basin-wide air quality impacts are, therefore, addressed in terms of project compatibility with regional air quality plans. If any given project or plan has been properly incorporated into basin-wide growth projections which are the basis for regional air quality/transportation planning, then the basin-wide impact of any proposed development is presumed, by definition, to be less than significant.

Locally, changes in the location of any collection of automotive sources, or changes in the number of vehicles or travel speeds may impact the microscale air quality around any given development site. Traffic increases not only contribute air pollutants in direct proportion to their cumulative percentage of traffic volume growth, but they may slow all existing traffic to slower, more inefficient travel speeds. The development traffic/air quality impact is thus potentially compounded.

Temporary construction activity emissions will occur during project buildout. Such emissions include

on-site generation of dust and equipment exhaust, and off-site emissions from construction employee commuting and/or trucks delivering building materials. Because of their temporary nature, air quality impacts from construction have often been considered as individually less than significant. Also, construction activity emissions are difficult to quantify, since the exact type and amount of equipment that will be used or the acreage that may be disturbed on any given day in the future is not known with any reasonable certainty. The emphasis in environmental documents relative to construction activity emission impacts has therefore been to minimize the emissions as fully as possible through comprehensive mitigation even if the precise amount of emissions can not be precisely quantified.

Historical use of agricultural pesticides or herbicides on the project site may have left residues within the soil that may be lofted during site development. Such concern, however, are more common for cultivated fields where DDT or other chlorinated compounds were used than for open rangeland such as the project site.

Construction workers, and to some extent the public at large, could also be exposed to any spores, viruses or other materials in the soil released during site grading. Grading activities are not likely to create any unacceptable health impacts from biological organisms in that organisms such as Valley Fever are not endemic to the El Toro area. Thousands of acres of Orange County have been tilled for many years or graded for new development with minimal evidence of any health impacts from soil-borne pathogens.

Construction Activity Impacts

Dust is normally the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). Because of such variations, regulatory agencies use one universal factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into mid-range average values.

The PM-10 fraction of fugitive dust emissions are predicted to be around 55 pounds per day per acre disturbed in the absence of any dust control measures being applied.[9] Mandatory measures required by South Coast AQMD Rule 403 (Fugitive Dust) are generally assumed to reduce this rate by 50%. Average daily PM-10 emissions during site grading and other disturbance are stated in the SCAQMD Handbook to be 26.4 pounds/ acre. Enhanced dust control procedures such as continual soil wetting, use of supplemental binders, early paving, etc. can theoretically achieve a 90% PM-10 control efficiency, or around 5.3 pounds per day per acre.

With "normal" dust control procedures, daily PM-10 emissions during construction of any individual project would exceed the SCAQMD emissions significance threshold of 150 pounds per day if more than 5.7 acres (150 lb ÷ 26.4 lb/acre = 5.7 acres) were under simultaneous disturbance. With

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9 *AQMD CEQA Handbook, Table 9-2*

assumed maximum achievable dust control, up to 28.4 acres (150 ÷ 5.7 = 28.4) could be under simultaneous disturbance.

The proposed project would be mass graded in one phase, with a total area of disturbance of 211 acres. Project development would exceed the PM-10 emissions significance threshold if a very substantial fraction of the project area were under simultaneous construction. It is highly doubtful, however, that heavy equipment operations will cover more than 25 acres because it would take an armada of equipment moving furiously to cover that much ground on any given day. It is possible, however, that more than 5.7 acres may be under simultaneous disturbance as the significance threshold for standard dust abatement. Enhanced dust control procedures thus need to be implemented during construction. With an effective dust control program implemented during construction, PM-10 impacts can be maintained at a less-than-significant level.

In addition to the fine particulates that remain suspended in the air semi-indefinitely, soil disturbance during construction may release considerable amounts of larger particles that have short atmospheric residence times. These larger particulates are generally inert silicates that are readily filtered out in the upper respiratory tract. They therefore have no adverse health effects. They may, however, create a soiling nuisance as they settle out on parked cars, landscaping foliage or other horizontal surfaces. Clouds of such dust may also locally impair visibility Soiling nuisance at St. Michael's Abbey during daytime on-shore flow or in Hidden Hills during nocturnal drainage winds is therefore a possible concern that further prompts the use of efficient dust control.

It is through these larger particulates that the public is aware of a dust problem in a construction area rather than through PM-10 Because such large particles are more readily lofted by turbulence during strong winds, extra dust control or cessation of soil disturbance activities is recommended when wind speeds exceed a heavy particulate lofting threshold of around 25 mph.

Construction also entails use of internal combustion engines to power on-road trucks and off-road mobile, semi-mobile and semi-stationary equipment. Such sources are mainly diesel-powered and are poorly regulated in terms of allowable emission levels. Off-road sources are sometimes not well maintained because there is no regulatory mechanism to enforce efficient combustion as there is for on-road sources. The SCAQMD has calculated the total area under construction that would cause the significance thresholds to be exceeded from construction-related equipment combustion emissions. For single family residences, the threshold is 1.3 million square feet of gross floor area (SCAQMD Handbook, Table 6-2). For 705 units even at 2,630 square feet per unit, total improved footage from simultaneous construction of the entire project will be less than the stated threshold. With the use of a comprehensive dust control program, construction activity air quality impacts in the project vicinity can be maintained at less than significant levels.

Construction activities are concentrated at the construction site, but they also spill over into the adjacent community. Spill-over may be physical spillage, or it may be from off-site congestion effects. Vehicles may track dirt off-site, lane closures may create congestion on public roadways and construction worker vehicles and supply trucks may compete with the general public for sometimes inadequate roadway capacity. Trucks may be left idling near off-site sensitive receptors while waiting to load or unload. Each of these small impacts nevertheless may be cumulatively significant when

spread over several years of project area buildout. As with the on-site impacts, a heightened level of impact mitigation will need to be utilized to maintain an overall tolerable level of impact from site activity construction. Housekeeping and construction activity management procedures are identified in the impact mitigation discussion relative to "spill-over" minimization.

Mobile Source Impacts

The bulk of the proposed project's impact will derive from the approximately 5,410 daily trips that will be generated at full site buildout. At a typical trip length of around 9 miles per trip, project implementation would add around 50,000 vehicle miles traveled (VMT) to the basin-wide mobile source emissions burden.

The emissions associated with project buildout can be readily calculated using the SCAQMD's MAAQI computer model. Emissions from project-related travel were calculated for a buildout year of 1997 as the earliest likely project completion year. The results of these calculations are summarized in Table 19. The computer output from the emissions model is contained in Appendix G of this document.

Table 19
PROJECT-RELATED OPERATIONAL EMISSIONS (POUNDS/DAY)*

Land Use	CO	ROG	NO_x	SO_x	PM-10
750 D.U. (Mfg. Housing	1311.8	107.7	149.0	10.3	15.2
20 KSF Commercial	397.3	34.0	43.1	3.2	5.1
Total	1709.1	141.7	192.1	13.5	20.3
SCAQMD	550.0	55.0	55.0	150.0	150.0
Proj. Share of Threshold	311%	258%	349%	9%	14%

Source: MAAQI Computer Model (output in Appendix)

* Assuming a 1998 buildout.

** Stationary source emissions are slightly over predicted because project size was artificially modified upward to force MAAQI model trip projections to match the project traffic study forecasts.

Mobile Source Emissions

As shown in Table 19, mobile source emissions for the three primary exhaust pollutants (ROG, CO and NO_x) exceed the SCAQMD significance threshold by a wide margin. This conclusion is generally consistent with the SCAQMD Handbook ... which, in Table 6-2, states that single family residential projects of 166 units or more may have a significant environmental impact. Although the SCAQMD Air Quality Handbook states strongly that such emission levels will have a significant impact on the environment, that finding is not necessarily binding. The SCAQMD is only an advisory agency on this project, such that the Lead Agency must evaluate whether there will actually be a measurable degradation of the regional air quality environment resulting from project implementation. While the proposed project would cause the suggested AQMD emissions threshold to be exceeded by a wide margin, several considerations may mitigate against considering the resulting air quality impact as individually significant as follows:

1. Similar emissions would result from development of the same project in an adjacent jurisdiction or elsewhere in Orange County.

2. The project is consistent with growth assumptions that were used for regional emissions forecasts in the AQMP. The AQMP forecasts regional attainment of the federal ozone standard by 2010 as long as the rate of predicted regional growth is not exceeded. The Saddleback Meadows project is only a minute part of predicted Orange County growth.

3. The transportation infrastructure is in place to efficiently service the site with good access to multiple transportation modes.

4. The project is located near the Foothill Transportation Corridor that provides good linkage between the Orange County concentrated employment centers and the project site.

The above considerations would allow for the Lead Agency to find that the air quality impact is individually less than significant despite the considerable emissions magnitude. If the emissions total alone were to be judged as sufficient evidence for a finding of significance, then the above considerations should be incorporated into a statement of overriding consideration.

Relative to a finding of (in)significance for the mobile source emissions, it should also be noted that the calculations do not take into account mandatory conversion of the basin travel fleet to methanol or a similar "clean" fuel. Clean fuel market penetration is mandated to be 25 percent by 1997 and then rise steadily into the early 21st Century. Zero emissions vehicle (ZEV) availability is also currently mandated under state law by the end of this decade with accelerated market penetration expected in the first decade of the next century. The assumption of 100 percent use of gasoline and diesel fuel in the analysis thus overstates project regional air quality impacts. However, independent of any reason to reduce the stated burden, traffic from all future growth will contribute significantly to the sub-regional and regional air pollution burden, and, therefore, creates a cumulatively significant air quality impact, regardless of project size. This is a function of growth and the dependence upon

the single occupant fossil-fueled vehicle as the primary means of transportation. All growth delays the ultimate attainment of regional clean air standards. This project, within a loose definition of "cumulative projects", would contribute to that impediment to clean air. Regardless of any finding of individual impact significance, the proposed Saddleback Meadows development should be identified as having a cumulatively significant air quality impact.

Because vehicular sources from all combined growth will contribute so substantially to regional emissions total, it correspondingly represents a significant opportunity to reduce that contribution. A reasonable reduction percentage through the implementation of an aggressive transportation system management (TSM) will achieve a measurable reduction when applied to such a large baseline emissions level. If the air quality impact from mobile source emissions is to be maintained at an acceptable level, a viable TSM program is an imperative strategy toward achieving that end.

Orange County has been extensively involved in trip/VMT reduction programs through the trip reduction ordinances (TRO) and various geographically focused transportation management programs. Several countywide programs that monitor city and county response to AQMP TCMs have shown that the county collectively has exceeded the 1994 trip reduction target of the 1991 AQMP when the county is allocated its fair share of the basin-wide reduction target. While progress toward reducing the dependence on the single occupant vehicle (SOV) is slow, continued progress toward higher average vehicle ridership (AVR) is to be expected during the Saddleback Meadows buildout time frame.

While regional mobile source emissions do not have a very direct impact on local El Toro air quality, the incremental addition of growth-related traffic over a wide area may change microscale air quality distributions. To determine whether future traffic changes will create an adverse air quality impact, a microscale air quality analysis was performed for the traffic analysis grid around the project site. A screening procedure based on the California line source roadway dispersion model CALINE4 was run for a number of traffic scenarios to evaluate any changes due to changes in patterns of growth anticipated as part of the Saddleback Meadows development.

The model combines the results of the traffic analysis with very restrictive dispersion conditions in order to generate a worst-case impact assessment. Carbon monoxide (CO) was used as an indicator of any "hot spot" potential because CO, unlike regional pollutants such as ozone, is directly related to source activity immediately adjacent to the receptor (a primary, unreacted pollutant impact). Calculations were made for an hourly exposure in the immediate vicinity of 10 roadway intersections where baseline traffic volumes were calculated in the traffic analysis.

The results of the microscale impact analysis are summarized in Table 20. The values in Table 20 must be added to any non-local background CO distribution. If one assumes that the maximum level measured near the El Toro and Jeronimo Roads intersection is the regional background, and that the worst-case, one-hour level of 6 ppm observed in 1995 occurs at the exact same hour as any worst-case project impact, then it would take a local contribution of 14 ppm to threaten the one-hour California CO standard of 20 ppm. Microscale hourly CO levels, both without and with the proposed project are forecast to be below the 14 ppm threshold. Combined CO concentrations will thus remain below the California 1-hour CO standard of 20 ppm, and far below the federal standard of 35 ppm.

Table 20
MICROSCALE AIR QUALITY IMPACT ANALYSIS
(Hourly CO concentration [ppm] above non-local background at edge of each indicated intersection).

	— Existing —		——— 2020 ———			
Intersection	**Base**	**+Proj.**	**No. Proj.**	**Mitig.**	**W/Proj.**	**Mitl.**
Portola Pkwy/Glenn Ranch Road	3.2	3.3	6.5	3.7	6.5	3.8
El Toro Road/Valley Vista Way	1 7	2.4	1.1	0.6	1.2	0.6
Portola Pkwy/El Toro Road	2.9	3 0	5.3	3.0	5.3	3.0
El Toro Road/Glenn Ranch Road	1.7	1.9	1.7	0.4	1.9	0.8
El Toro Road/Live Oak Canyon Road	2 9	3.0	2 1	0.9	2.2	1.0
Santiago Canyon Road/Modjeska Canyon Road	4.7	4 9	2.6	0.9	2.6	0.9
El Toro Road/Ridgeline Road South	2 1	2.3	1.1	0.5	1.5	1.0
Portola Pkwy/Foothill T.C.	2.4	2.4	5.7	2.5	5.7	2.5
Marguerite Pkwy/El Toro Road	1.7	1.9	1.7	1.3	2.0	1.5
Santiago Canyon Road/Ridgeline Road North	2.6	4.5	2.5	1.1	2.6	1.1
Saddleback Ranch Road/Glenn Ranch Road	0.8	0.8	0.9	0.9	1.0	1.2
El Toro Road/Project Entrance	—	2.4	—	—	1.2	0.6

Source: Screening Procedure based upon CALINE4 Model; Caltrans Air Quality Technical Analysis Notes (AQTAN), 1988.

Project-related CO contributions are seen in Table 20 to range from 0.0 to 1.9 ppm. The only increase exceeding 1 ppm occurs at El Toro Road and Ridgeline, where a change in level of service increases queuing times for all vehicles. The average increase at all intersections is 0.2 ppm compared to the most stringent standard of 20 ppm (1.0 percent average change). There are not now, nor will there be with the project, any microscale air pollution "hot spots" at any project area intersections.

Increased area-wide traffic and associated congestion is offset by continued improvements in vehicular CO emissions per average vehicle Future (2020) CO levels with the proposed project and with anticipated intersection improvements are generally less than in 1997. At no intersection are 2020 "with project" levels greater than in 1997 by no more than 1.0 ppm. SCAQMD Rule 1303 identifies a CO increment of less than 5 percent of the hourly standard of 20 ppm, i.e., 1.0 ppm, to

be a de minimis increment requiring no further impact analysis. The findings of the microscale impact assessment are therefore that CO levels under theoretical worst-case conditions do not exceed clean air standards and the Saddleback meadows traffic will add an insignificant amount to the total CO exposure. Microscale impacts are less than significant.

4.5.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project prior to the application of mitigation measures would result in significant impacts to short term dust (PM-10) generation, and operational emissions. Potentially significant impacts were identified during construction from dust (PM-10) generated by surface disturbance and from construction equipment operations. Operational emissions will be in excess of thresholds of significance for regionally significant pollutants as identified by the South Coast AQMD. As a minimum, vehicular emissions from project-related traffic should be identified as having a cumulatively significant air quality impact.

4.5.5 CUMULATIVE IMPACTS

Cumulative impacts are evaluated in Section 4.5.3 of this document. Regardless of any finding of individual impact significance, the proposed project would have an unavoidable adverse cumulative impact on air quality.

4.5.6 MITIGATION MEASURES

A number of mitigations, as related to the project, are already incorporated into rules, regulations or ordinances. They are included in the following list of mitigation measures in that compliance mitigates a potentially adverse impact. They are not discretionary measures, however, which a developer can implement or the County of Orange can additionally require since compliance is already assumed in the impact analysis

Project Design Features

No air quality PDF's have been proposed.

Standard Conditions and Mitigation Measures

SC 5-1 Grading and excavation shall be halted during periods of high winds meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. According to AQP Measure F-4, high winds are defined as 25 mph or greater. This level occurs only under unusually extreme conditions, such as Santa Ana wind conditions. Notations in the above format, included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

SC 5-2 Prior to issuance of grading permits, the project applicant shall demonstrate measures to ensure compliance with SCAQMD Rule 403, and shall identify the dust

suppression measures, such as regular watering, which shall be implemented to reduce emissions during construction and grading in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. This will help reduce the short-term impacts from particles which could result in nuisances that are prohibited by Rule 403.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations:

AM 5-3 As previously noted, no credit was taken for mobile source emissions reductions either from technology improvements (reformulated gasoline, alternative fuels and/or electric cars), nor from transportation behavior modification in response to programs such as South Coast AQMD Reg. XV or by the trip reduction programs. These programs will mitigate the identified significant growth-related cumulative air quality impact to some extent. Because the projected effectiveness of such programs and because the time frame for technology development is uncertain, the degree of possible mitigation can not be quantified with certainty. Similarly, the buildout date for Saddleback Meadows will depend on economic forces that can not be predicted. The following discussion structures the recommended mitigation as comprehensively as possible, but quantification of mitigation effectiveness is speculative at currently known levels of detail.

AM 5-4 Contractors will comply with SCAQMD Rule 403.

AM 5-5 Contractors will utilize measures to prevent dirt from being tracked, washed, blown or otherwise conveyed onto paved roadways, and will wash or sweep the construction access points at El Toro Road on a routine basis on a frequency specified by the County of Orange as well as whenever dirt is visible more than 50 feet from the access point independent of the routine clean-up schedule.

AM 5-6 Trucks hauling dirt on public roads to and from the site will be covered or will maintain a six inch differential between the maximum height of any hauled material and the top of the haul trailer. Haul truck drivers will water the load prior to leaving the site to prevent soil loss during transport.

AM 5-7 Construction management procedures required by the County of Orange and other jurisdictions shall be implemented Contractor personnel responsible for supervision and the appropriate actions to be taken for the following measures shall be identified:

- Cessation of activities during a Stage-2 smog episode. Call 1-800-242-4022 for the daily forecast.

- Truck routes and schedules for receipt of materials shall be coordinated with County of Orange staff.

- Where feasible, on-road vehicles and off-road equipment shall be turned off and subsequently restarted if the anticipated duration of idling is expected to exceed five (5) minutes.

AM 5-8 Graded surfaces used for off-road parking, materials lay-down or awaiting future construction shall be stabilized for dust control as needed. Frequently accessed unpaved areas shall be paved as early as possible to minimize dirt trackout to public rights of way.

AM 5-9 Equipment will be maintained in proper tune to prevent visible soot from reducing light transmission through the exhaust stack exit by more than 20 percent for more than three (3) minutes per hour and use low-sulfur fuel as required by SCAQMD regulation.

Flag persons and appropriate traffic control devices will be used as needed to minimize construction activity interference with off-site traffic.

AM 5-11 Implementation of the above measures is expected to maintain construction activity air quality impacts at less than significant levels.

Operational Activities:

- Traffic flow at the project access will be maintained at acceptable levels of service through mitigation measures identified in the project traffic study.

- 220v electric power for future use to charge electric-powered vehicles will be made available in homeowner garages.

AM 5-12 Emissions calculations and the corresponding ambient air quality impact assessment for project-related construction and Saddleback Meadows operations presumed compliance with SCAQMD rules regarding dust control. The potential for additional emissions reduction beyond the mandatory requirements of existing rules and regulations was evaluated based on Appendix 11 of the SCAQMD Air Quality Handbook which quantifies reduction potential of a variety of project construction and operation emissions control measures.

Dust emissions can be controlled from their 50 percent control assumed for Rule 403 compliance by an additional 50-80 percent of the uncontrolled fraction. The net effective dust control level is therefore 75-90 percent.

Unless the entire project site is under simultaneous massive grading, attaining the optimum level of dust control will maintain dust impacts at less than significant levels.

Operational emissions reduction from mobile sources of 5 percent of their non-TCM implementation level can not reduce the substantial emission level to less than the SCAQMD advisory level significance thresholds. A number of secondary considerations were identified, however, that would either allow for a finding of an individually less than significant air quality impact.

4.5.7 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the proposed project, in conjunction with the above outlined mitigation measures, would result in unavoidable adverse impacts to cumulative operational emissions.

4.6 NOISE

A Noise Impact Analysis has been conducted for the proposed project by Giroux & Associates, and is included in Appendix H of the DEIR.

4.6.1 EXISTING ENVIRONMENTAL SETTING

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally described as unwanted sound. Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Several rating scales have been developed for the analysis of adverse effects of community noise on human beings. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. Upon this premise, a number of noise scales have been developed including the Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL).

LEQ is the sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. LEQ is the "energy" average noise level. CNEL is similar to LEQ but is based on a 24 hour period, and applies a time-weighting factor that places greater significance on noise events occurring during the evening and night hours (when sleep disturbance is a concern). "Time-weighted" refers to the fact that noise occurring during certain sensitive time periods is penalized for occurring at these times. The evening period (7 p.m. to 10 p.m.) penalizes noises by 5 dB, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dB. The CNEL scale is specified by the County of Orange for community noise analysis.

An interior CNEL of 45 dB(A) has been required by the State noise insulation standards (Title 24 of the California Code of Regulations) for all multiple family dwelling units and hotel/motel rooms since 1974. In 1988, the State Building Standards Commission expanded that standard to include all habitable rooms, including single family or low density residential uses. All development in close

proximity to automotive traffic, rail or industrial noise sources with baseline levels exceeding 60 dB CNEL must undergo an analysis to verify that the 45 dB interior standard is attainable.

Exterior to interior noise attenuation is typically 20 dB for all windows closed. A 65 dB CNEL exterior noise exposure thus generally allows the 45 dB CNEL interior standard to be met as long as windows can normally be closed to shut out the noise. A level of 65 dB is also the threshold where noise begins to intrude significantly into normal activities such as having a conversation. Although people may express annoyance if traffic noise levels in usable exterior space such as yards, patios, porches, etc. are below 65 dB, the percentage of "highly annoyed" people increases dramatically when noise exceeds 65 dB.

Noise/land use compatibility standards for various classes of land uses are generally expressed in the Noise Element of the General Plan to insure that noise exposure is considered in any development decisions. Local noise suitability criteria are based on state model guidelines shown in Exhibit 47.

Exhibit 47 contains four classes of acceptability and has a number of overlapping compatibility noise levels within several criteria. In order to reduce the potential ambiguity of various conditional acceptabilities, Orange County developed a more clear-cut matrix of acceptable noise levels shown in Table 21 and explained in Table 26.

Noise standards for residential projects are shown in Table 25:

Table 21
ORANGE COUNTY RESIDENTIAL NOISE STANDARDS

Exterior Level	Requirement
<60 dB CNEL	None
60-65 dB CNEL	Indoor Level <45 dB CNEL
>65 dB CNEL	Outdoor Level Mitigated to <65 dB CNEL Indoor Level <45 dB CNEL

Baseline Noise Levels

Existing noise levels on the project site are normally low except in close proximity to El Toro Road. Periods of quiet are interspersed with occasionally noisy periods of aircraft overflights. The project site also is near a flight corridor for military helicopter training operations in Santiago, Black Star and other interior canyons.

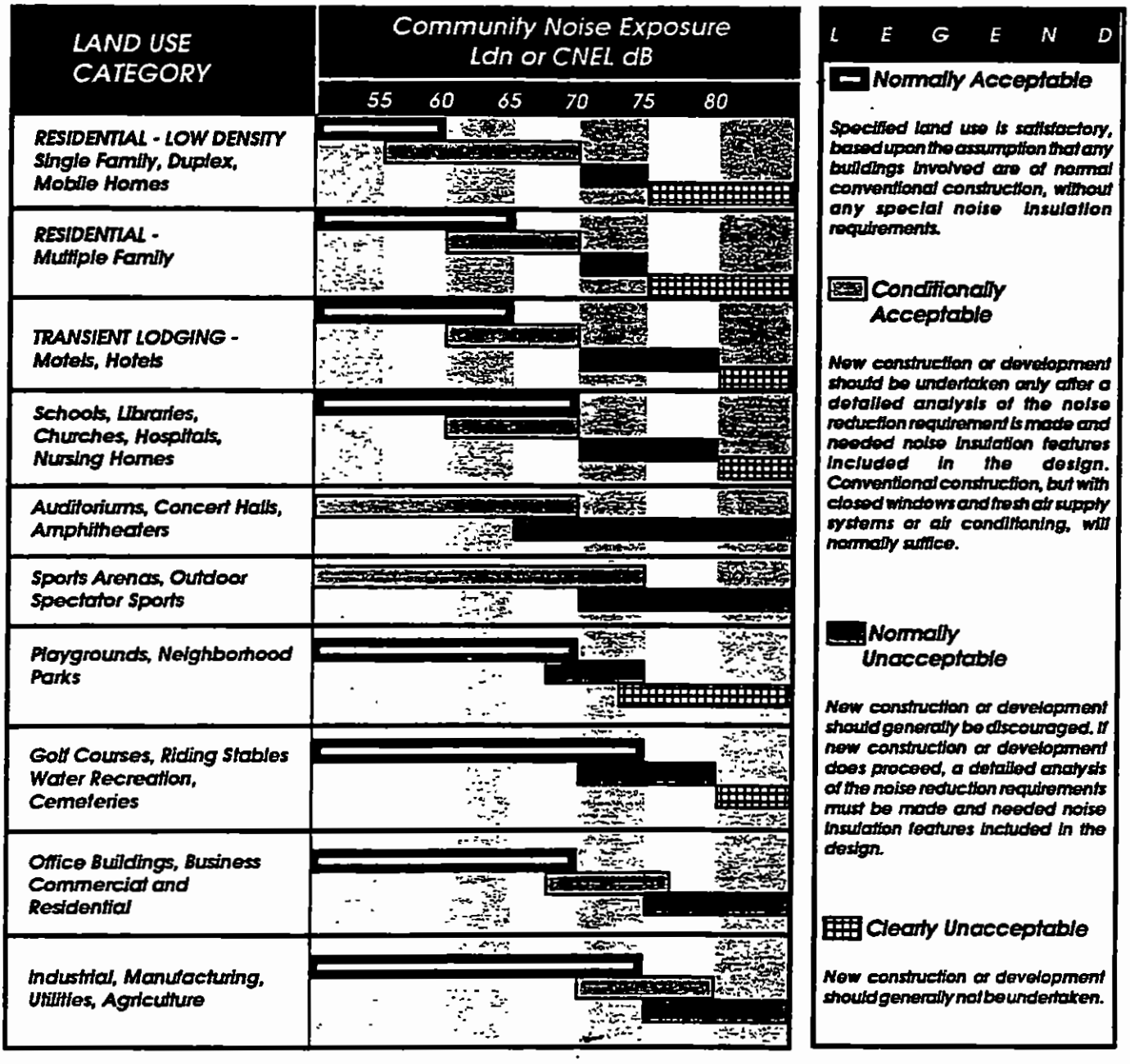
The project site is located near one of the primary landing/takeoff routes from El Toro MCAS. Aircraft above the site, however, are sufficiently high such that the noise exposure is only marginally degraded. Exhibit 48 shows that the site is traversed by the 60 dB CNEL contour, shown in the

Orange County Noise Element. The 60 dB contour just touches a small area in the southwestern corner of the project site. Almost all of the project site is outside the 60 dB CNEL contour. However, County policy relative to aircraft noise exposure is to use the highest exposure anywhere on the property as the noise reference level. At the property line adjacent to Valley Vista Way in an area of proposed open space, the maximum El Toro MCAS noise exposure is 62 dB CNEL. To be consistent with County policy, this level was thus used as an impact evaluation/mitigation criterion with the understanding that its use is over productive to varying degrees across the project site.

Aircraft fleet conversion since the element was adopted have slightly reduced the project site noise exposure. The project site is shown as being traversed by the 60 dB CNEL contour near the southwest corner of the property in the County Noise Element. Its current actual exposure is around 2 dB less with the 60 dB CNEL contour just off the project site. However, small differences (2 dB) are generally indistinguishable. Aircraft noise will thus be a project constraint as long as aviation operations continue at El Toro. Depending upon future site re-use, aircraft noise may or may not be an important issue.

Because aircraft noise contours are constructed based upon average annual operations, and because the contours represent extended periods of quiet with isolated noise peaks, CNEL is not necessarily the best indicator of noise nuisance potential. Individual fly-over events may thus be intrusive even if the CNEL is below levels considered unacceptable for noise-sensitive uses. Mitigation for single event intrusion has therefore been incorporated For this project in addition to complying with the uniforms building code adopted by the State of California and the practices of the Orange County Environmental Management Agency.

In order to characterize existing project site noise levels, a brief noise measurement program was undertaken on August 28, 1995. Noise levels were measured for 30-minute periods near El Toro Road, and again near the caretaker's trailer by the cattle corral. The observed levels (in dB) were as follows:



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS

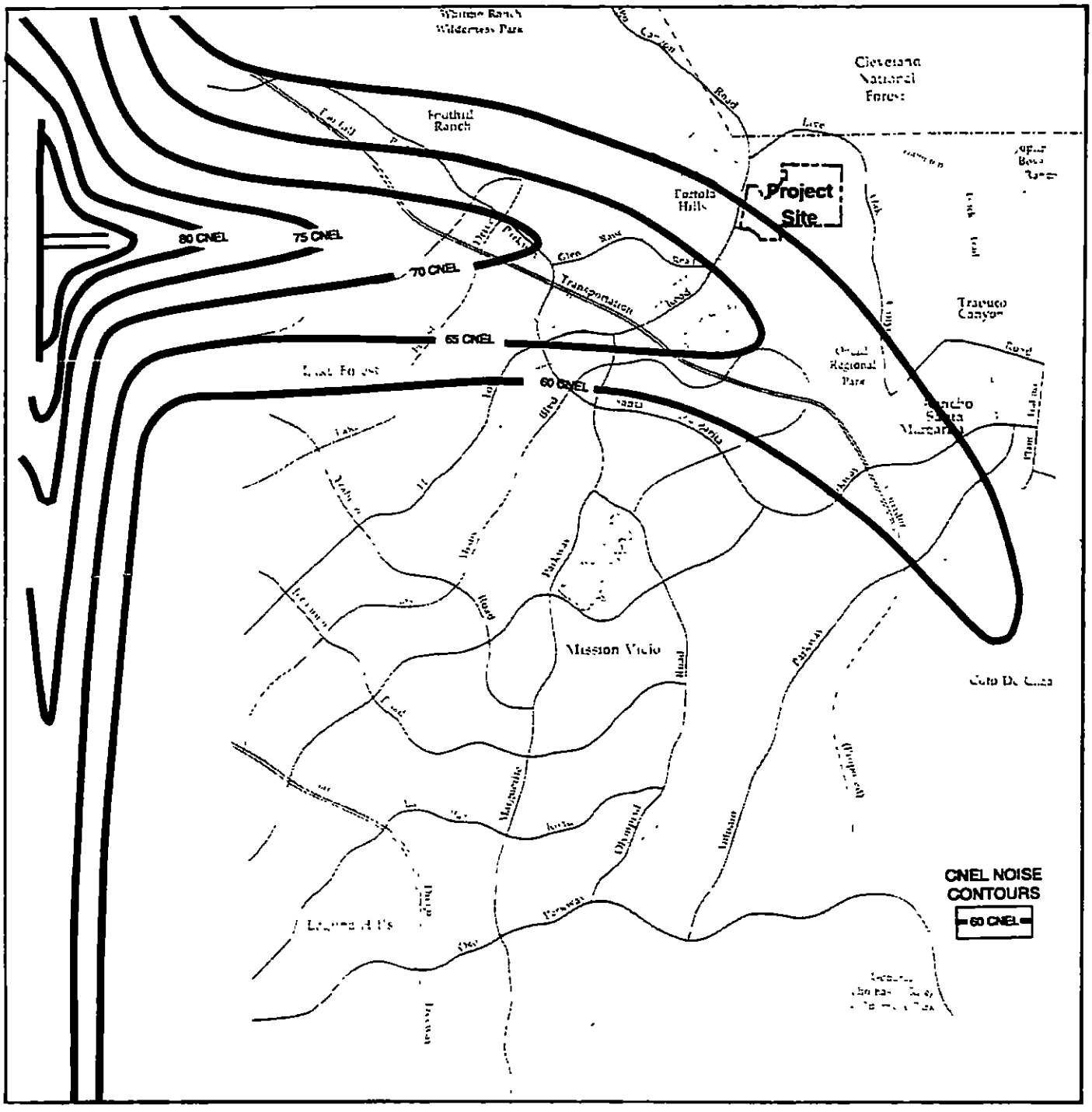
Scale: N/A

Source: N/A

N

California Noise & Land Use Compatibility Guidelines

EXHIBIT No. 47



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: N/A

El Toro MCAS Noise Contours

EXHIBIT No. 48

Table 22
EXISTING ONSITE NOISE LEVELS

Parameter	50' to El Toro Rd.	Cattle Corral [a]	Cattle Corral [b]
LEQ	67.8	62.4	48.0
Lmax	86.5	86.5	—
Lmin	38.0	39.0	—
L10	71.0	55.5	—
L50	59.5	46.0	—
L90	43.5	42.5	—

[a] - with helicopter overflights

[b] - without helicopter activity

The dramatic effect of just a few single loud noise events skewing the average is seen in the difference between periods of helicopter traffic versus flight-free periods. Without the helicopters, the site interior has a semi-rural noise character. With the flight activity, the average noise level, as expressed by LEQ, is only around 5 dB less than directly adjacent to El Toro Road. As noted above, average noise exposure alone is therefore not a completely sufficient criterion for evaluating possible impacts of the ambient acoustic environment on development plans for the project.

4.6.2 EFFECTS FOUND TO BE INSIGNIFICANT

The following noise effects were found to be less than significant as determined by the Initial Study/Environmental Assessment contained in Appendix C of this EIR. These factors are not evaluated in this EIR.

- None of the effects listed in the Initial Study are insignificant.

Table 23
ORANGE COUNTY LAND USE/CNEL COMPATIBILITY MATRIX[10]

Type of Use	65+ dB CNEL	60-65 dB CNEL
Residential	3a, b, e	2a, e
Commercial	2c	2c
Employment	2c	2c
Open Space		
• Local	2c	2c
• Community	2c	2c
• Regional	2c	2c
Educational Facilities		
• School (K through 12)	2c, d, e	2c, d, e
• Preschool, college, other	2c, d, e	2c, d, e
Places of Worship	2c, d, e	2c, d, e
Hospitals		
• General	2a, c, d, e	2a, c, d, e
• Convalescent	2a, c, d, e	2a, c, d, e
Group Quarters	1a, b, c, e	2a, c, e
Hotels/Motels	2a, c	2a, c
Accessory Uses		
• Executive Apartments	1a, b, e	2a, e
• Caretakers	1a, b, c, e	2a, c, e

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10 *Explanation and Definitions:*

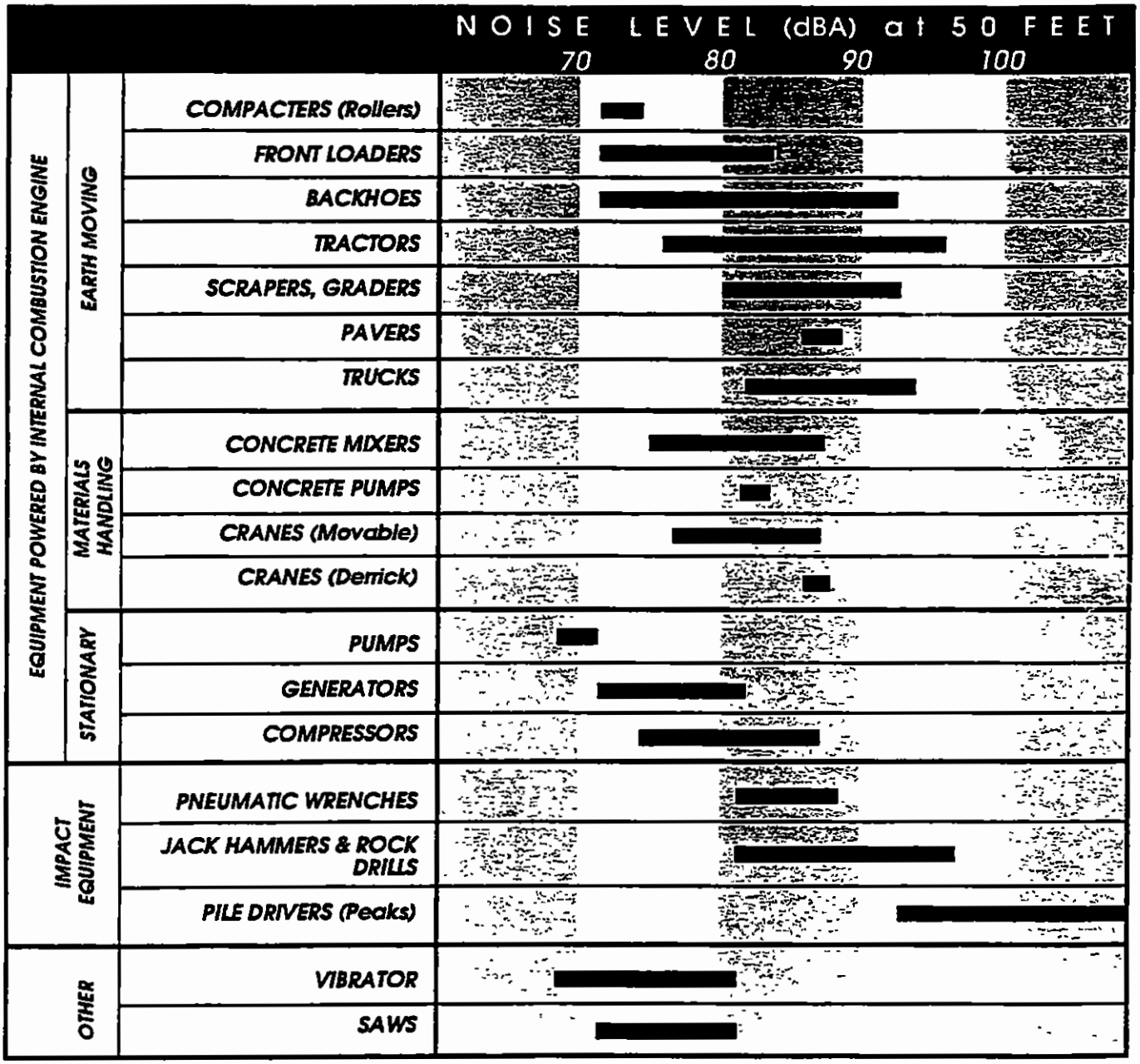
1. *Allowed if interior and exterior community noise levels can be mitigated.*
2. *Allowed if interior levels can be mitigated.*
3. *New residential uses are prohibited in areas within the 65-decibel contour from any airport or air station; allowed in other areas if interior and exterior community noise levels can be mitigated. The prohibition against new residential development excludes limited "infill" development within an established neighborhood.*

Standards Required for Compatibility of Land Use and Noise

a. *Interior Standard: CNEL of less than 45-decibels (habitable rooms only)*
b. *Exterior Standard: CNEL of less than 65-decibels in outdoor living areas*
c. *Interior Standard: LEQ(h) = 45 to 65 decibels interior noise level, depending on interior use*

Typical Use	*LEQ(h)*
• *Private Office, Church Sanctuary, College, Preschool, Schools (Grade K-12), Board Room, Conference Room, etc.*	*45*
• *General Office, Reception, Clerical, etc.*	*50*
• *Schools (Grades K-12)*	*52*
• *Bank Lobby, Retail Store, Restaurant, Typing Pool, etc.*	*55*
• *Manufacturing, Kitchen, Warehousing, etc.*	*65*

d. *Exterior Standard: LEQ(h) of less than 65 decibels in outdoor living areas.*
e. *Interior Standard: As approved by the Board of Supervisors for sound events of short duration such as aircraft fly-overs or individual passing railroad trains.*



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Typical Construction Equipment Noise Levels

EXHIBIT No. 49

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: N/A

N

4.6.3 PROJECT IMPACTS

Three noise concerns are typically identified with land use intensification such as that proposed for the project area. Construction activities, especially heavy equipment, will create short-term noise increases near the project site. Upon completion, project-related traffic will cause an incremental increase in area-wide noise levels throughout the El Toro area. Since, however, the number of trips generated by this small housing project is limited, the impact of ambient noise on the project site, rather than project traffic noise impacts on the rest of the community, is the important noise environment concern.

Construction Noise Impacts

Temporary construction noise impacts will vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by site clearing and grading, then by foundation construction, and finally for finish construction. The earth-moving (grading) activities are anticipated to be the noisiest sources during construction with equipment noise ranging from 75 to 90 dB(A) at 50 feet from the source.

Spherically radiating point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The quieter construction noise sources will, therefore, drop below 60 dB by about 300 feet from the source while the loudest sources might still be detectable above the local background beyond 1,000' from the construction area. With hilly topography in the project vicinity, the terrain shielding effects will limit the "noise envelope" around each construction site to considerably less than its theoretical maximum.

Construction noise sources are not strictly relatable to a noise standard because they occur only during selected times and the source strength varies sharply with time. The penalty associated with noise disturbance during quiet hours and the nuisance factor accompanying such disturbance usually leads to time limits on grading activities imposed as conditions on grading permits. The weekday (including Saturday) hours from 7 a.m. to 8 p.m. are the times allowed in the Orange County Noise Ordinance for construction or grading. Division 6 (Sec. 4-6-1, et seq.) of the County Code also contains standard requirements related to the distance separation between construction activities and any occupied dwellings. EMA's "Standard Condition for Approval" N10 requires:

1. All powered equipment operating within 1,000 feet of a dwelling must have a properly operating and maintained muffler.

2. Stockpiling and staging activities must be located as far as practicable from dwellings.

Construction activities in areas of noise-sensitive biotic habitats such as coastal sage scrub containing gnatcatchers may affect bird behavior. Little actual evidence of noise effects on gnatcatchers has been documented, but many wildlife management agencies believe such effects exist. In San Diego County, a standard of 60 dB Leq (one hour average) derived from studies on least Bells Vireo has been applied to gnatcatchers. Use of this standard ignores the fact that a large number of successful breeding pairs have been found directly under the take-off end of major airport runways or next to freeways where peak hourly noise levels reach almost 80 dB. Many San Diego County grading projects have nevertheless been conditioned to avoid the breeding season for possibly noise-sensitive birds, or to erect temporary berms or other buffers to reduce avian noise exposure if seasonal avoidance is not practical.

Development-Related Vehicular Noise Impacts

Long term noise concerns from the increased urbanization of the project area center primarily on mobile source emissions surrounding the project site. These concerns were addressed using the California specific vehicle noise curves (CALVENO) in the federal highway noise prediction model (FHWA-RD-77-108) in a computerized version of the model developed by Caltrans. The model calculates the Leq noise level for a particular reference set of input conditions, and then makes a series of adjustments for site-specific traffic volumes, distances, speeds, or noise barriers.

Project-related traffic may incrementally contribute to the noise exposure of off-site receiver locations. Of the 3780 daily project-generated trips, 75% will travel southwestward on El Toro Road, while the other 25% will turn right at El Toro Road to travel inland. At each subsequent turning opportunity, fractions of each traffic stream will split into different directions and thus dilute any off-site project traffic noise impact. The CNEL at 100 feet from area roadways for various scenarios is shown in Table 24.

As shown in Table 24, Valley Vista Way and Glenn Ranch Road would experience noise increases exceeding 2 dB noise level increases of 1 dB or greater are considered distinguishable. However, as shown in the Table 25, the 65 dB CNEL contour will remain within 50 feet of the roadway centerline when project traffic noise is superimposed upon existing noise levels. This offsets any degree of noise impact occurring on these roadways. It should also be noted that in areas of concentrated traffic, such as at the project area, the high noise levels already experienced will substantially mask most project noise contribution. The project is too limited in scope to create a discernible change in offsite traffic noise levels. Noise impact on the ambient acoustic environment is judged to be less than significant.

Table 24

CNEL (dB[A]) at 100' to CENTERLINE

Link	Existing	Exist. + Project	2000 No Project	2000 W/Project	2020 Cumul.
Santiago Canyon Road:					
• N. of Modjeska Canyon Road	65	65	65	65	67
• Modjeska Canyon Rd. to Ridgeline	65	65	65	66	67
• Ridgeline Rd. to Live Oak Cyn. Rd.	63	64	65	66	67
Modjeska Canyon Road:	53	54	55	55	55
• East of Santiago Cyn. Rd.					
El Toro Road					
• Ridgeline Road to Project	65	66	65	66	68
• Project to Valley Vista	65	66	65	67	68
• Valley Vista - Glenn Ranch	65	66	65	66	68
• Glenn Ranch Rd. to SR-241	66	66	66	67	68
• SR-241 to Santa Margarita Parkway	66	66	66	67	68
• Marguerite Pkwy to Santa Marg. Pkwy	65	65	66	66	68
• West of Santa Margarita Parkway	67	67	67	67	69
Portola Parkway:					
• North of SR-241	67	67	69	69	71
Santa Margarita Parkway:					
• SR-241 to El Toro Road	66	67	70	70	72
• South of El Toro Road	68	68	69	69	70
Ridgeline Road:					
• Santiago Cyn Rd to Saddleback Ranch	56	57	60	60	61
• Saddleback Ranch Rd. to El Toro Rd	56	57	59	60	60
Saddleback Ranch Road:					
• Ridgeline Rd. to Glenn Ranch Road	61	61	63	63	64
Glenn Ranch Road:					
• Portola Pkwy to Saddleback Rnch Rd	60	62	66	66	68
• Saddleback Ranch Rd. to El Toro Rd	59	61	63	64	67
Live Oak Canyon Road:					
• East of El Toro Road	60	61	62	62	63
Valley Vista Way:					
• East of El Toro Road	53	57	57	59	59
Marguerite Parkway:					
• South of El Toro Road	64	64	67	67	70
Project Access Road:					
• East of El Toro Road	N/A	59	N/A	61	61

N/A = no data available

Table 25

DISTANCE FROM CENTERLINE TO 65 dB CNEL CONTOUR (feet)

Link	Existing	Exist. + Project	2000 No Project	2000 W/Project	2020 Cumul.
Santiago Canyon Road:					
• N. of Modjeska Canyon Road	100	105	100	105	140
• Modjeska Canyon Rd. to Ridgeline	100	105	100	110	135
• Ridgeline Rd. to Live Oak Cyn. Rd.	80	85	105	110	130
Modjeska Canyon Road:					
• East of Santiago Cyn. Rd.	<50	<50	<50	<50	<50
El Toro Road:					
• Ridgeline Road to Project	100	110	105	115	155
• Project to Valley Vista	110	120	105	122	165
• Valley Vista - Glenn Ranch	100	120	105	125	165
• Glenn Ranch Rd. to SR-241	110	115	120	130	165
• SR-241 to Santa Margarita Parkway	110	115	120	130	165
• Marguerite Pkwy to Santa Marg. Pkwy	100	100	110	120	165
• West of Santa Margarita Parkway	135	140	140	145	180
Portola Parkway:					
• North of SR-241	130	135	190	195	240
Santa Margarita Parkway:					
• SR-241 to El Toro Road	125	125	230	230	295
• South of El Toro Road	150	150	175	175	220
Ridgeline Road:					
• Santiago Cyn Rd to Saddleback Rnch Rd	<50	<50	<50	<50	55
• Saddleback Ranch Rd. to El Toro Rd	<50	<50	<50	<50	50
Saddleback Ranch Road:					
• Ridgeline Rd. to Glenn Ranch Road	55	55	75	75	90
Glenn Ranch Road:					
• Portola Parkway to Saddleback Ranch	<50	60	110	120	160
• Saddleback Ranch Rd. to El Toro Rd	<50	50	70	80	135
Live Oak Canyon Road:					
• East of El Toro Road	<50	50	65	65	75
Valley Vista Way:					
• East of El Toro Road	<50	<50	<50	<50	<50
Marguerite Parkway:					
• South of El Toro Road	90	95	130	135	215
Project Access Road:					
• East of El Toro Road	N/A	<50	N/A	<50	50

N/A = no data available

Source: FHWA-RD-77-108 (Calveno mod.)

The roadway that could affect project onsite noise exposure is El Toro Road. At the maximally exposed lot at around 400 feet from El Toro Road, the traffic noise level will be 63.5 dB CNEL at area buildout. Inclusion of a 60 dB CNEL aircraft contribution increases the noise exposure to 65.0 dB CNEL at the nearest property line. This just meets the County exterior noise standards and requires no extensive noise mitigation. This calculation assumes a semi-infinite line of sight to El Toro Road. Terrain irregularities will reduce the actual noise exposure to well below the worst-case maximum. There, is, therefore, no required exterior noise mitigation because of adequate setback from El Toro Road.

Mitigation in the form of exterior to interior noise attenuation will be required to meet the 45 dB CNEL interior standard for all units within the development since a 62 dB CNEL aircraft noise contour will cover the site as long as El Toro MCAS operations occur. Meeting the interior standard requires the option to close the window. Such ability, in turn, requires that there is supplemental mechanical ventilation to replace the natural draft eliminated by such closure. For new homes in inland valleys of Orange County, air conditioning is normally a standard feature meeting this requirement.

Noise reduction of 20 dB is normally attainable with closed windows, which will reduce any aircraft-related CNEL from 62 to 42 dB. As previously noted, however, CNEL is not the best predictor of noise annoyance due to single event phenomena such as individual overflights. Measured peak noise levels from helicopter operations were 86.5 dB in the center of the project site A comparable level would likely occur from El Toro jet aircraft operations. A 20 dB attenuation would create a 65+ dB single event level that may be annoying to occupants even with windows closed. Most new developments within the fringes of the El Toro noise impact envelope thus have been built with acoustically enhanced windows.

Use of windows rated with a sound transmission class (STC) of 25 or better is recommended to reduce noise annoyance potential from single events. Such windows reduce single event noise, reduce vibration response (rattle) to aircraft noise often found in single-pane windows and are more energy efficient.

Residential activities may affect adjacent noise-sensitive land uses such as contemplative religious facilities. These facilities are, however, already exposed to single event aircraft noise that is much louder than a distant barking dog, lawnmower or auto horn associated with project residential use. The combination of irregular terrain, distance buffering and normally quiet residential activities are not expected to create a significant noise impact on any adjacent abbey or monastery uses.

Impact Significance Criteria

According to CEQA guidelines, a significant noise impact is one that substantially increases the ambient noise levels for adjoining or nearby sensitive receptors. For purposes of community noise assessment, changes in noise levels of three dB or greater are typically identified as significant, while changes of less than one dB are not discernable. In the one dB to three dB range, residents sensitive to noise may perceive a slight change.

Transportation related noise standards have been established for noise sensitive land use areas (e.g., residences, schools, hospitals, churches, etc.) in the Orange County Noise Element. These standards are 65 dB CNEL for exterior noise sensitive areas and 45 dB CNEL for interior areas.

Thus, a noise impact will be considered potentially significant if the project results in a noise level increase of greater than three dB, and if that increase, or a lesser increase, causes the County noise standard of 65 dB CNEL to be exceeded.

A significant noise impact would occur if residential units are located within the MCAS El Toro 65 dB CNEL contour or higher.

4.6.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project would result in short-term construction related impacts to adjacent land uses including: 1) St. Michael's Abbey; 2) Ramakrishna Monastery; 3) Hidden Hills planned community.

No onsite or offsite significant noise impacts would occur since 1) onsite residential lots would not be affected by 65 CNEL plus noise levels, 2) offsite roadway CNEL levels would not increase by more than 2 dB at 100 feet from the roadway centerline, and 3) the project site is outside of the MCAS 65 dB CNEL contour.

4.6.5 CUMULATIVE IMPACTS

Cumulative noise impacts are evaluated in Section 4.6.3 of the EIR.

4.6.6 MITIGATION MEASURES

Project Design Features

No PDF mitigation measures are proposed.

Standard County Conditions and Mitigation Measures

SC 6-1 All residential lots and dwellings shall be sound attenuated against present and projected noise which shall be the sum of all noise impacting the project so as not to exceed a composite interior standard of 45 dBA CNEL all habitable rooms and a source specific exterior standard of 65 DBA CNEL in outdoor living areas. Evidence prepared by a County-certified acoustical consultant, that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, shall be submitted as follows:

a. Prior to the issuance of grading permits, as determined by the Manager, PDS/ Building Permit Services Division, the applicant shall submit an acoustical analysis report to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy "B" below.

b. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, PDS/Building Permits Services Division, for approval along with satisfactory evidenced which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

c. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-2 Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permits Services Division, an acoustical analysis report shall be submitted to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy SC 6-3 below.

SC 6-3 Prior to the issuance of any building permits for residential construction, an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards shall be submitted for review and approval to the Manager, PDS/Building Permits Services Division, along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

SC 6-4 Prior to the issuance of any building permits, all freestanding acoustical barriers must be shown on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-5 Prior to the issuance of any certificates of use and occupancy, the developer shall produce evidence acceptable to the Manager, PDS/Building Inspection Services Division, that information stating this property is subject to the overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station) has been provided to the Department of Real Estate of the State of California for inclusion into the Final Subdivision Public Report.

SC 6-6 Prior to the issuance of any certificates of use and occupancy, the applicant shall post aircraft noise impact notification signs in all sales offices associated with new residential development located within an aircraft 63 dB CNEL contour. The number and location of said signs shall be as approved by the Manager, PDS/Building Permits Services Division.

SC 6-7 Prior to the issuance of any building permit, an aviation easement over this property shall be offered for dedication to the County of Orange in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-8 Prior to the sale, lease or rental of any structure or portion thereof, the applicant/owner shall provide to each prospective purchaser, lessee, or tenant a notice and statement of acknowledgment that the property is subject to overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station). The form and method of distribution of said notice and statement of acknowledgment shall be as approved by the Manager, PDS/Building Permits Services Division.

A. Prior to the issuance of any grading permits, the proponent shall produce evidence acceptable to the Manager, Building Permit, that:

(1) all construction vehicles or equipment, fixed or mobile, operated within 1000 feet of a dwelling shall be equipped with properly operating and maintained mufflers.

(2) All operations shall comply with Orange County "Codified Ordinance Division 6 (Noise Control); and

(3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this requirement.

SC 6-9 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that excavation, grading and other construction-related activities shall be restricted to daytime hours as promulgated in the County's Codified Ordinance Division 6 (Noise Control).

SC 6-10 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that all construction equipment, stationary or mobile, shall be equipped with properly operating and maintained mufflers.

SC 6-11 Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division, that:

a) All construction vehicles or equipment, fixed or mobile, operated within 1,000-feet of a dwelling shall be equipped with properly operating and

maintained mufflers.

b) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).

c) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

Notations in the above format, appropriately identified and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations, in manner meeting approval of the Manager, PDS/Building Permits Services Division.

AM 6-12 Prior to the issuance of building permits, all operative windows exceeding 6 sq.ft. of glazing shall be rated SR=25 or greater.

4.6.7 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the proposed project in conjunction with proposed mitigation measures would not result in any unavoidable adverse short term, operational or aircraft overflight impacts.

4.7 BIOLOGICAL RESOURCES

This section is based on the most recent biological assessments conducted for the project site by Sweetwater Environmental Biologists (SEB) in March, 1997 and December, 1995 and other previous studies conducted by SEB in August, 1995 and 1994 and Pacific Southwest Biological Services (PSBS) in 1989, 1993 and 1994. These studies can be found in their entirety in Appendix I of Draft EIR No. 561. In addition, an Oak Tree Inventory is included in Appendix K of this EIR and a Pond Mitigation Plan in Appendix K of Draft EIR No. 561.

4.7.1 EXISTING ENVIRONMENTAL SETTING

Prior to evaluating the onsite biological resources, a literature search was conducted to determine sensitive species which may potentially occur onsite. This included an evaluation of information from the Natural Diversity Data Base (NDDB) maintained by the California Department of Fish and Game (CDFG) and review of previous biological reports completed for the project site (PSBS 1993;1994).

A total of eight previous surveys for wildlife were completed by PSBS, including surveys for the coastal California gnatcatcher, including two general wildlife surveys in 1989, a general wildlife survey (which included a gnatcatcher survey) and two gnatcatcher surveys in 1993, and three gnatcatcher surveys in 1994. The 1993 and 1994 surveys for gnatcatchers satisfied U.S. Fish and Wildlife Service (USFWS) protocol for presence/absence surveys for the preparation of DEIR 561, and the overall wildlife data appear adequate for assessing the general presence and distribution of the various groups of vertebrates on the project site. Current (May 1997) USFWS survey protocol for determining the presence/absence of gnatcatchers requires seven in-season or nine out-of-season field surveys, conducted at one week intervals. These surveys have not been completed for the currently proposed project, and as required by the USFWS, the onsite coastal sage scrub habitat must be considered occupied by the coastal California gnatcatchers until proven otherwise. The PSBS surveys had limitations in coverage, most of which were identified in their 1994 report when they stated that for detection of certain species (i.e., nocturnal, underground-living, or seasonal species) certain focused surveys would be required. Taped vocalizations of the coastal California gnatcatcher were played in all of the coastal sage scrub habitats onsite. Field investigators spent more than one hour per 25 acres of habitat during the surveys. This is consistent with the Natural Community Conservation Program (NCCP) Scientific Review Panel Guidelines (SRP 1992) for gnatcatcher presence/absence surveys.

A site visit to assess the potential onsite wildlife movement corridors was made on October 12, 1994. This survey was conducted on foot, with the majority of the time spent in areas with native vegetation. On June 1994, PSBS documented the presence of Riverside fairy shrimp and the potential for additional fairy shrimp in all onsite ponds. In April 1996, a survey for the western spadefoot toad was conducted in all the onsite ponds by SEB.

Vegetation mapping and sensitive plan surveys were conducted in June and July 1995. Vegetation was mapped using an aerial photograph and then transferred to the same scale topographic map. Botanical survey emphasis was placed on those species that have the potential to occur the habitats onsite.

A wetland delineation was completed for the project site in August 1995 in accordance with the 1987 U.S. Army Corps of Engineers (ACOE) Wetlands Delineation Manual (Environmental Laboratory 1987).

Vegetation Communities

Five types of native vegetation occur on the project site: Venturan-Diegan transitional coastal sage scrub, coast live oak woodland, southern sycamore riparian woodland, mulefat scrub, and southern mixed chaparral (onsite vegetation is shown in Exhibit 50). Portions of the venturan-diegan coastal sage scrub are disturbed. Annual grassland, agricultural land, and ephemeral ponds also occur on the site. The ephemeral ponds onsite are not vernal pools, but rather are holding ponds for watering cattle which graze on the site.

Table 26
ONSITE VEGETATION

Vegetation Community	Acreage
Venturan-Diegan Transitional Coastal Sage Scrub	64.8
Disturbed Venturan-Diegan Transitional Coastal Sage Scrub	2.3
Coast Live Oak Woodland	14.5
Southern Sycamore Riparian Woodland	0.5
Mulefat Scrub	2.9
Southern Mixed Chaparral	5.4
Annual Grassland	125.3
Agriculture	4.6
Ephemeral Ponds	0.8
Disturbed	1.1
Total	**222.2**

A total of 110 plant species, 73 (66 percent) of which are native, were observed during surveys. The presence of 39 non-native plant species on the project site reiterates the disturbed nature of most of the site. A common plant species in much of the site is the cardoon, an artichoke-like plant that grows in areas where soils, especially clay soils, have been highly disturbed and compacted. This aggressive plant species often dominates areas that have been heavily grazed. The undisturbed native vegetation communities onsite support a typical diversity of plant species common to central, cismontance Orange County.

Venturan-Diegan Transition Coastal Sage Scrub

Coastal sage scrub is a general habitat found in coastal areas of California from the San Francisco Bay Area to the Mexican border. The coastal sage scrub community is composed of low stature, drought-deciduous shrubs.

Four floristic associations are recognized within coastal sage scrub plant formation and these occur in distinct geographical areas along the California coast with the Diegan association occupying an area from Orange County to northwestern coastal Baja California, Mexico (O'Leary 1990). The Venturan association occupies an area from San Luis Obispo County to Orange County. Venturan-Diegan transitional coastal sage scrub is found throughout Orange County and is a transitional scrub community between two floristic associations of coastal sage scrub, Venturan and Diegan. Approximately 67.1 acres of this plant community occur onsite, 2.3 acres of which is currently disturbed.

LEGEND

CSS	Venturan-Diegan Transitional Coastal Sage Scrub
CSS-D	Venturan-Diegan Transitional Coastal Sage Scrub-Disturbed
OW	Coast Live Oak Woodland
SW	Southern Sycamore Riparian Woodland
MFS	Mulefat Scrub
SMC	Southern Mixed Chaparral
EP	Ephemeral Ponds
AG	Annual Grassland
CULT	Agricultural
DIS	Disturbed
RUD	Ruderal

SENSITIVE ANIMALS

* Riverside Fairy Shrimp
Streptocephalus woottoni

▲ Coastal Whiptail
Cnemidophorus tigris multiscutatus

■ Cactus Wren
Campylorhynchus brunneicapillus

Southern California Rufous-Crowned Sparrow
Aimophila ruficeps canescens

◆ Cooper's Hawk
Accipiter cooperii

△ Orangethroat Whiptail
Cnemidophorus hyperythrus beldingi

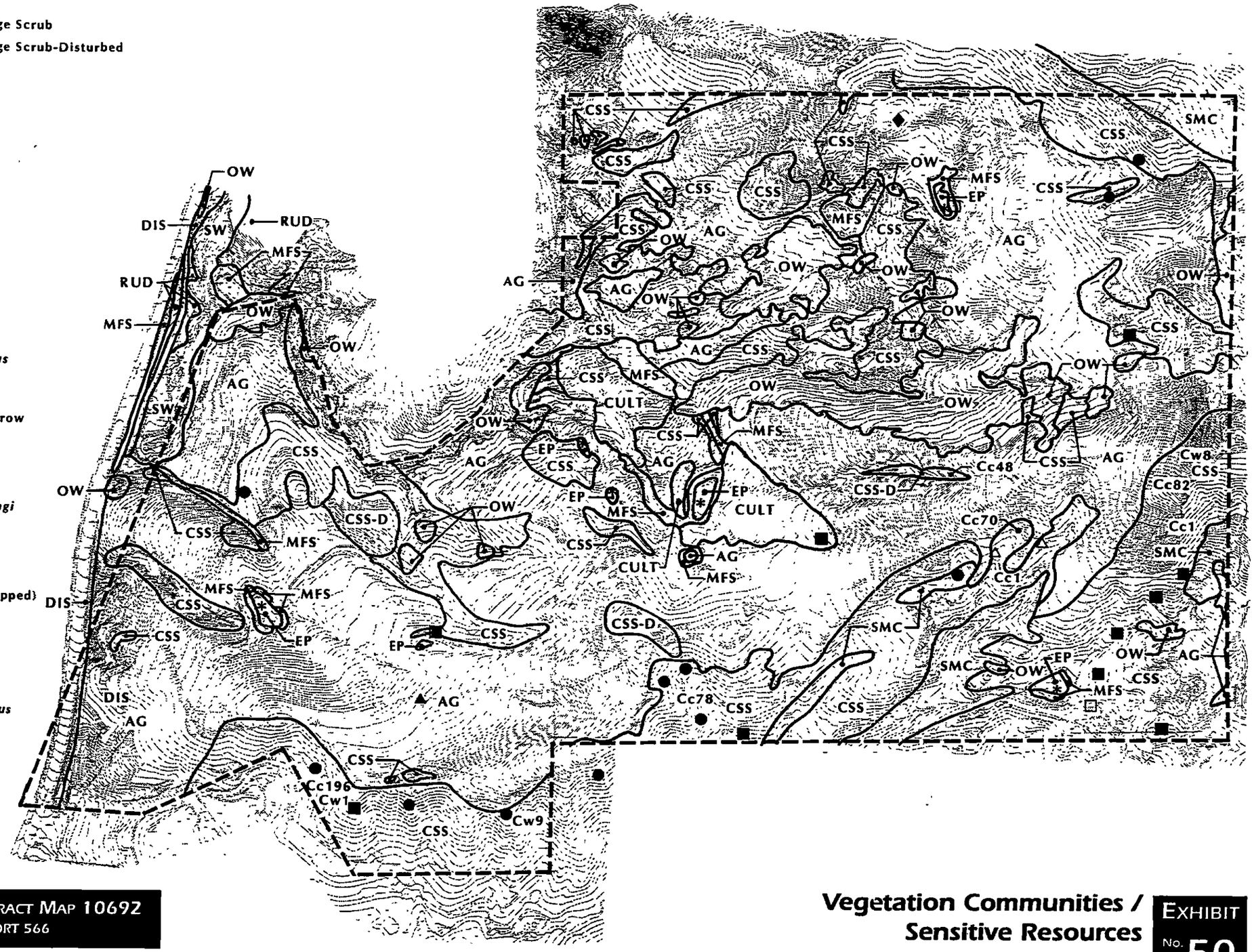
□ Western Spadefoot
Spea hammondi

Loggerhead Shrike
Lanius ludovicianus
(observed by PSBS in 1989, not mapped)

SENSITIVE PLANTS

Cc Catalina Mariposa Lily
Calochortus catalinae

Cw Intermediate Mariposa Lily
Calochortus weedii ssp. intermedius



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

County of Orange P&DS

URBAN VISION

Scale: 1"=400'
Source: Sweetwater Environmental Biologists, Inc.

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Vegetation Communities / Sensitive Resources

EXHIBIT No. 50

Typical plants found within the onsite coastal sage scrub community include California sage brush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), black sage (*Salvia mellifera*), and coastal prickly-pear (*Opuntia littoralis*). Disturbed portions of coastal sage scrub (2.3 acres) have a higher component of annual grasses and noticeably less shrub cover than undisturbed coastal sage scrub areas. Much of the coastal sage scrub onsite is unconnected and subject to continued degradation because of the cattle grazing.

Coastal sage scrub is the primary habitat of concern associated with the development of the Natural Communities Conservation Planning Program, currently being prepared.

Coast Live Oak Woodland

Coast live oak woodlands occur in the outer portion of the central California coastal mountain ranges and extend south into Baja California, Mexico occurring between 500 and 4,500 feet in elevation In Orange County, this community is found mainly along the foothills of moderate, north-facing slopes and shaded ravines. The structure of this woodland typically consists of a canopy which reaches a height of 12 to 70 feet, incompletely closed, with an understory herbaceous layer approaching 80 percent cover. Approximately 14.5 acres of coast live oak woodland occur onsite, restricted to the central and northeastern quadrant of the site. A total of 298 coast live oak (*Quercus agrifolia*) and two scrub oak (*Quercus dumosa*) trees with calipers greater than 8-inches, are located onsite Specific characteristics of each tree are evaluated in the Oak Tree Inventory contained in Appendix K of this EIR.

On the project site, the coast live oak woodland has a fairly open canopy and is dominated by coast live oak (*Quercus agrifolia*). Areas within small drainages or swales (central portion of the site) have the most dense canopy. The understory is, for the most part, dominated by annual grassland and has been heavily grazed, making the woodland of an overall moderate quality.

Southern Sycamore Riparian Woodland

Southern sycamore riparian woodland is composed of tall, open, broad-leaved, winter-deciduous trees that require water near the soil surface. Western sycamore (*Platanus racemosa*) is the dominant species forming an open, medium height woodland. Associated understory species include mulefat (*Baccharis salicifolia*), Mexican elderberry (*Sambucus mexicana*), and poison oak (*Toxicodendron diversilobum*). This habitat occurs along very rocky streambeds subject to seasonally high-intensity flooding (Holland 1986) and occurs along large intermittent streams in Orange County. An estimated 0.5 acres of this habitat occur onsite, along Aliso Creek near El Toro Road on the western boundary of the site.

Mulefat Scrub

Mulefat scrub is a depauperate, tall, herbaceous, riparian scrub community that often occurs along intermittent stream channels but is also found around ponds or other wet areas. This early seral community thrives in areas that are subject to flooding and other disturbances; the absence of which could lead to a riparian woodland or forest (Holland 1986). On the Saddleback Meadows site, mulefat scrub occurs around the ephemeral pond habitat and in areas where there is not enough water to support riparian tree species. Approximately 2.9 acres of mulefat scrub occur onsite.

Southern Mixed Chaparral

Southern mixed chaparral is composed of broad-leaved sclerophyllous shrubs that grow to about 6 to 10 feet tall and form dense often nearly impenetrable stands. The plants of this association are typically deep-rooted. Some of the dominant species of this community include lemonadeberry (*Rhus integrifolia*), toyon (*Heteromoles arbutifolia*), chamise (*Adenostoma fasciulatum*), and mission manzanita (*Xylococcus bicolor*). Southern mixed chaparral occurs on canyon slopes in the extreme northeast and southeast quadrants of the site. Approximately 5.4 acres of southern mixed chaparral occur onsite.

Annual Grassland

Annual grassland is a dense to sparse cover of mostly non-native grasses, often associated with numerous species of showy-flowered, native, annual forbs. This association occurs on gradual slopes with deep, fine-textured soils. Characteristic species include cardoon (*Cynara cardunculus*), oats (*Avena* sp.), red brome (*Bromus madritensis* ssp. *rubens*), ripgut (*B. diandrus*) and mustard (*Brassica* spp.). Most of the biomass within non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. In conjunction with agriculture and grazing in California, many of these plants were imported. Approximately 125.3 acres of annual grassland occur throughout the site. Annual grassland is in every quadrant of the site, but the most dense coverage is on the less steeply sloped portions of the western half of the site.

Agriculture

Approximately 4.6 acres onsite consists of olive trees planted for agricultural purposes. These trees are found in the central portion on the site.

Ephemeral Ponds

All of the ephemeral ponds were artificially created a number of years ago to provide water for cattle. Some earthen dams are partially breached causing the ponds to shrink in size. Others are deteriorating and could soon breach. Winter storms have also taken their toll. Existing use of the ponds by cattle severely impact vegetation and water quality. The ponds were found to support Riverside fairy shrimp (*Streptocephalus wootoni*) a federally listed endangered species. Eight ponds, totaling 0.8 acre in size, occur on the site.

None of the plant species observed in the ephemeral ponds are primarily or typically found in vernal pools in southern California. Several species observed onsite can occur in vernal pools but typically occur elsewhere. These species include salt-grass (*Distichlis spicata*) and curly dock (*Rumex xrispus*). Salt-Grass is a species typically found in salt marshes, and moist, alkaline areas. Curly dock is a species typically found in disturbed places. The typical habitats of the plant species observed in or near the ponds include fresh or salt water marsh, riparian, moist places, and disturbed areas Furthermore, spring surveys conducted in 1995 did not detect any vernal pool species on the site.

Based on the absence of vernal pool indicator species and the presence of species typically found in other wetland or disturbed habitats, the vegetation of the ephemeral ponds is considered atypical of vernal pools. This finding is consistent with observing vernal pool species which may occur in standing water and the drying pool beds.

The physical setting of these ponds also differs from most other southern California vernal pools (Zedler 1987). Vernal pools typically occur on relatively flat mesas, situated in low lying areas between mounds. This contrasts sharply with the lay of the land at Saddleback Meadows where few areas of the property are flat. Furthermore, the ponds do not occur in the few flat areas that do exist. They occur primarily in drainages which have been dammed. The disturbance associated with their formation and ongoing disturbance from cattle grazing are probably responsible for the low species diversity and high percentage of weed species. Based on vegetation, species composition, and physical setting, it is reasonable to conclude that the onsite ponds are not vernal pools.

Disturbed

A portion of the site is considered disturbed, which includes roads and other paved areas.

Animals

A total of 63 animal species were observed during the surveys. The animal species observed represent a somewhat lower diversity than is usually observed in the western foothill region of the Santa Ana Mountains, probably due to the disturbed nature of the site and the presence of cattle and man.

Invertebrates

Both the native and non-native plant communities onsite probably play host to a wide variety of invertebrate species, especially insects. Invertebrates are important features of an ecosystem because of their role in food chains and as decomposers. Specific surveys for invertebrates focused on the presence of Riverside fairy shrimp, which was known to occur onsite. Hundreds of additional invertebrates are expected to use the site.

Amphibians

No amphibians were observed during the surveys of the site. At least two species, the black-bellied salamander (*Batrachoseps nigriventris*) and California slender salamander (*Batrachoseps attenuatus*), are expected to occur. The disturbed conditions that exist throughout most of the site have likely restricted these species to the steeper slopes where vegetative coverage is most dense.

Reptiles

Four reptiles--the western fence lizard (*Sceloporus occidentalis*), coastal whiptail (*Cnemidophorus tigris multiscutatus*), orangethroat whiptail (*Cnemidophorus hyperythrus beldingi*), and side-blotched lizard (*Uta stanisburiana*) were observed onsite. Although the site has many disturbed areas, much reptile habitat still occurs throughout the site. Additional lizards and snakes would be expected, especially in the undisturbed portions of coastal sage scrub on the steeper slopes.

Birds

Bird species were most abundant and conspicuous during the surveys and undoubtedly exhibit the highest vertebrate diversity. Most of the birds were observed within the coastal sage scrub, southern mixed chaparral, and coast live oak woodland habitats onsite. A few of the resident birds which were most abundant onsite include California quail (*Calipepla californica*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), California towhee (*Pipilo crissalis*), house finch

(*Carpodacus mexicanus*), and lesser goldfinch (*Carduelis psaltria*). Other bird species were observed foraging on the site but probably reside elsewhere including cliff swallow (*Hirundo pyrrhonota*), northern rough-winged swallows (*Stelgidopteryx serripennis*), red-tailed hawks (*Buteo jamaicensis*), and American kestrels (*Falco sparverius*). The barn owl (*Tyto alba*) was observed nesting in the coast live oak woodlands possibly as recently as 1989.

Mammals

Eight mammals were detected onsite including the California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), woodrat (*Neotoma* spp.), coyote (*Canis latrans*), bobcat (*Lynx rufus*), gray fox (*Urocyon cineroargenteus*), mule deer (*Odocoileus hemionus*), and domestic cattle. Several rodents and additional medium-sized mammals are expected to use the site as well. Some expected species include the Virginia opossum (*Didelphus virginiana*), striped skunk (*Mephitis mephitis*), and deer mouse (*Peromyscus maniculatus*). Many of the species which may occur were not observed during the diurnal surveys because they are nocturnal.

Natural Communities Conservation Planning (NCCP) Program

The NCCP program's goal is to permanently safeguard dozens of California's native plants and animals, and the land and water on which they depend, in reserves and open spaces, while also accommodating needed economic activity. The protected areas in Southern California are being designed pursuant to long-term conservation plans created under the program. They will provide both long-term protection for habitat and increased certainty in the land-use planning process for holders of private property within the range of the program.

The coastal sage scrub habitat, the first area in which the NCCP program has been implemented, is home to the California gnatcatcher and approximately 90 other potentially threatened or endangered species. This much-fragmented habitat is scattered over more than 6,000 square miles and encompasses large parts of Orange, San Diego, and Riverside counties, and smaller portions of Los Angeles and San Bernardino counties. Fifty-nine local government jurisdictions, scores of landowners from across these counties, other private interests, federal wildlife authorities, and the environmental community are actively participating in the program.

As conceived, the NCCP program differs fundamentally from the California and federal Endangered Species Acts (ESA). These laws are designed to identify and protect individual species whose numbers have declined in number significantly. By contrast, the primary objective of the NCCP program is to conserve natural communities before their constituent species have declined to the point

that protection under the ESAs is necessary and to accommodate compatible land use. The State seeks to anticipate and prevent the controversies and conflicts in Southern California caused when species are listed by focusing on the long-term stability of wildlife and plant communities and by making the stakeholders in these issues voluntary and fully cooperative partners in the planning process.

In Orange County, two conservation planning study areas comprise a total of approximately 340,000 acres and involve over a dozen cities and five major landowners. The southern subregional NCCP Plan (within which this project is located) is in the planning process. The central subregional plan has been approved and is operational. The two plans envision two reserves totaling 39,000–40,000 acres each and covering several habitat types and as many as 25 species. Both of these subregions have large areas of undeveloped coastal sage scrub habitat.

NCCP Program Goals

The NCCP program builds on, supplements, and improves conventional administration of the existing species protection laws. Whereas the ESA represent efforts at "critical care," NCCP is a preventative approach to conservation.

The NCCP program is designed to:

- Safeguard prime habitat for wildlife while allowing for compatible development. This is achieved when localities, landowners, and others work cooperatively to develop an NCCP that covers an entire region or area. Once approved, an NCCP will provide both guidance and certainty regarding habitat preservation and land use for many decades.

- Protect and preserve the rich biological diversity of an entire habitat.

- Enable compatible economic growth to proceed both during and after habitat planning.

- Conserve wildlife habitat within approved NCCP areas in an amount and configuration that will provide for listed species, minimize or preclude the need to list additional species under the State and federal laws, or eliminate any additional restrictions if additional species are listed later.

- Facilitate recovery efforts by encouraging conservation for multiple species, not merely separate habitat conservation plans for individual listed species under the federal ESA, and

eliminate the need for separate recovery plans.

- Create certainty regarding biological issues for private landowners as they seek changes in land use for their property in exchange for adherence to long-term conservation commitments.

- Maximize local control in habitat conservation and encourage local governments to fully integrate conservation planning and impacts to biological resources into decision-making on land-use issues and mitigation requirements.

- Encourage sufficient funding at all levels of government for habitat conservation and multi-species planning.

- Reduce state, federal and local redundancy in wildlife management pursuant to the State and federal ESA and the NCCP Act

- Incorporate into law and State wildlife management the advances in conservation biology, landscape ecology, and biogeography that have been made in recent years.

The southern subregion is summarized as follows:

Southern NCCP

Total acreage in planning process:	131,000 acres
Coastal sage scrub acreage:	26,500 acres
Estimated css that will go into preserves:	18,000 acres
Habitat acres in planning areas:	95,000 acres
Habitat acres in proposed preserves:	40,000 acres
Jurisdictions included: County, 3 utilities and 3 private landowners	
Habitats covered:	12
Number of species covered:	25

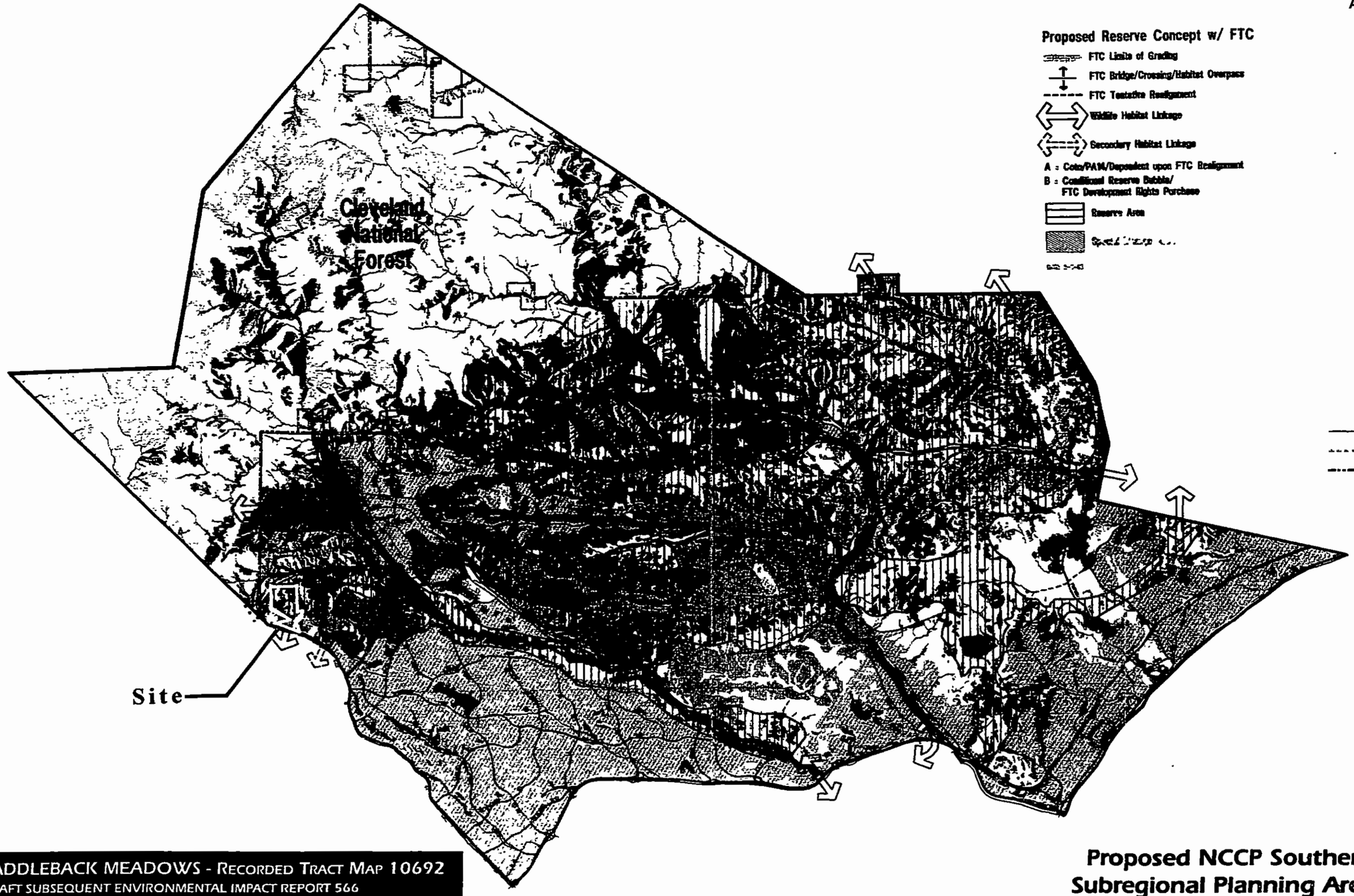
It is anticipated that the 131,000-acre plan will include 65% of the coastal sage scrub and approximately 75% of the areas in which gnatcatcher and cactus wren sightings have occurred in the subregion. The plan will cover approximately 25 species. Local participants are focusing their efforts to identify external preserve linkages and corridors where proposed development is anticipated. The subregion will incorporate public lands of the Cleveland National Forest.

The Natural Communities Conservation Planning Program (NCCP) was initiated by the State of California under the special Section 4(d) Rule of the federal Endangered Species Act (ESA). This pilot program focuses on conserving coastal sage scrub in order to avoid the need for future federal and state listing of coastal sage scrub dependent species. The coastal California gnatcatcher (*Polioptila californica californica*) is presently listed as threatened under the federal ESA, although not found onsite, while several additional species inhabiting coastal sage scrub are candidates for federal listing.

Orange County's Southern Subregional NCCP is currently in preparation and is expected to be completed in late 1997 or early 1998. Six possible design alternatives for the southern subregional preserve are currently under consideration. The central subregional NCCP has been approved. The project site occupies a linkage area between the Central and Southern NCCP Subregional preserves, where a wildlife corridor is needed. Projects surrounding the site received approval prior to the NCCP process, reducing the flexibility of open space strategy in the area. The proposed southern subregional NCCP planning area is shown in Exhibit 51.

Wildlife Movement

Orange County is developing its NCCP preserve system for maintaining a viable coastal ecosystem. Open space configuration in the vicinity of the project site is a key planning element for an effective wildlife corridor between the planned Central and Southern Regional NCCP preserve areas. However, the project site, because of the topography, the disturbed nature of the site, and existing open space and development patterns in the project vicinity, would not serve to entirely fulfill wildlife corridor needs in the area. Existing FTSP designated corridors are shown in Exhibit 52.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: 1"=9400'
Source: Sweetwater Environmental Biologists, Inc.

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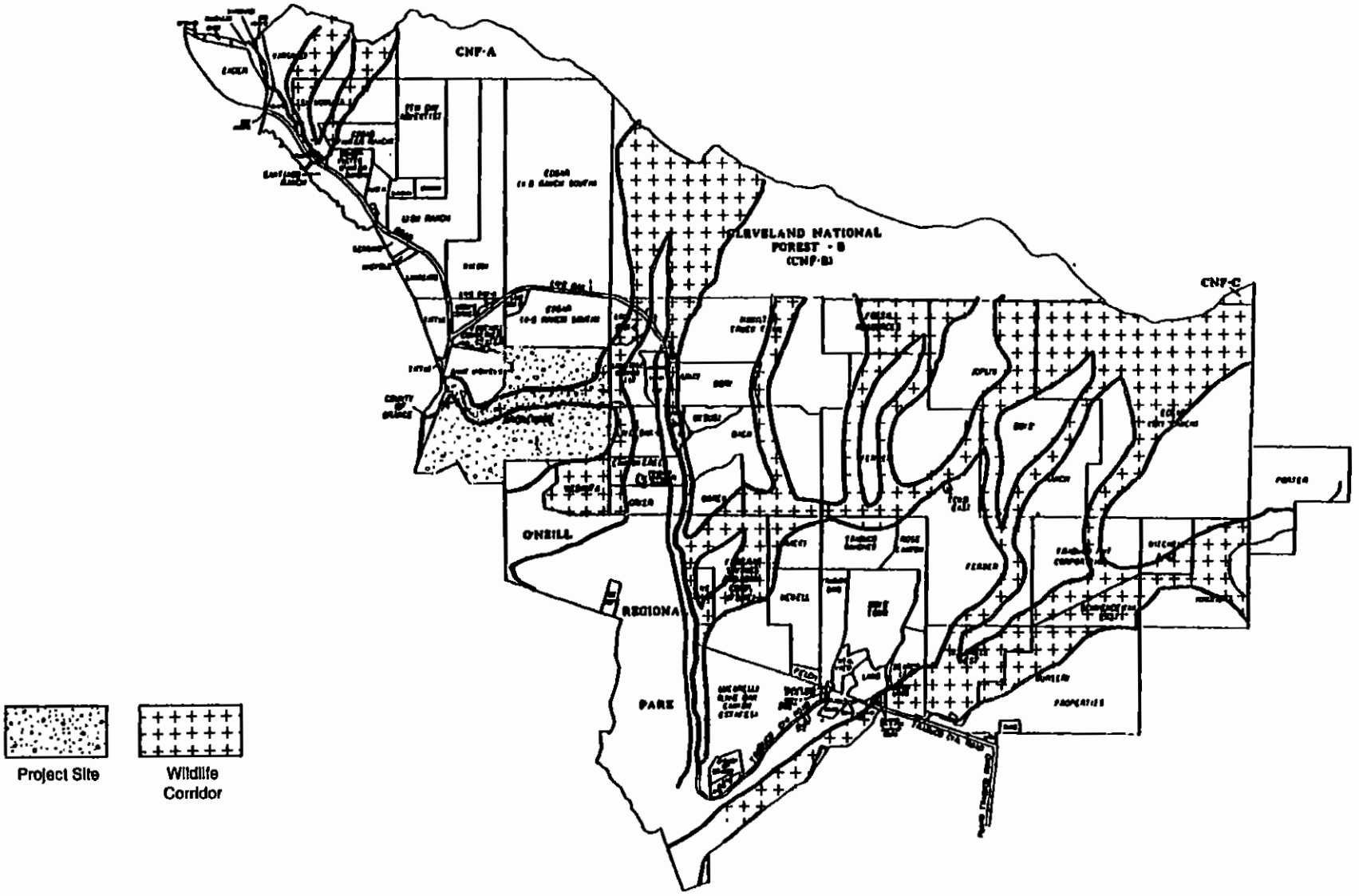
Proposed NCCP Southern Subregional Planning Area

EXHIBIT No. 51



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Foothill Trabuco Specific Plan Wildlife Movement Corridors

EXHIBIT No. 52

URBAN VISION

County of Orange P&DS

Scale: 1"=3500'

Source: Foothill/Trabuco Specific Plan

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Sensitive Resources

The following is a description of sensitive biological resources found on the project site. These resources represent different levels of constraints for the project's implementation.

Habitats

Venturan-Diegan Transitional Coastal Sage Scrub

Coastal sage scrub is considered a sensitive habitat because it supports a number of state and federally listed endangered, threatened, and rare vascular plants as well as several reptile, bird, and mammal species that are federally listed or are candidate species for federal listing. Loss estimates for coastal sage scrub habitat in California range from 36 to 85 percent, but since these estimates were made in 1979 to 1981, additional losses have since occurred (O'Leary 1990). The primary cause for the loss of coastal sage scrub within California has been habitat conversion to agriculture and urban development.

The California NCCP has established an Evaluation Logic Flow Chart for determining the potential value for long-term conservation of coastal sage scrub. According to this flowchart, the coastal sage scrub on the project site is considered to have intermediate value for long-term conservation because it is not the densest coastal sage scrub in the subregion, but is close to a higher value district (O'Neill, Whiting Ranch Regional parks and Cleveland National Forest). The fragmented nature of much of the coastal sage scrub onsite makes it low quality. The highest quality coastal sage scrub occurs on the steep slopes that connect with O'Neill Regional Park in the southeast quadrant of the site. This area supports the highest native plant component and the highest diversity of animal species.

Coast Live Oak Woodland

Coast live oak (*Quercus agrifolia*) woodland and individual oaks are protected by the tenets of CEQA because of their scarcity, wildlife values, and ability to provide watershed protection. The major factors contributing to the decline of oak woodlands in southern California include livestock grazing, recreational use, and urban and rural development. The coast live oak woodland onsite is of moderate quality because of the extensive grazing which has eliminated the natural understory.

A total of 298 coast live oak trees and two large scrub oaks (*Quercus dumosa*) are located on the project site. Specific characteristics of each tree are categorized in the Biological Resources Assessment in Appendix H of this EIR.

Southern Sycamore Riparian Woodland

Southern sycamore riparian woodland is considered sensitive because it is a riparian habitat. Riparian habitats serve as movement corridors, water sources, shelter/shaded areas, and the unique microclimate supports a variety of wildlife at all taxonomic levels. Many bird, fish, and amphibian species are completely restricted to riparian habitats and are dependent on them for breeding. Amphibians, reptiles, birds, and mammals also move back and forth across riparian habitats into adjacent upland or wetland habitats. Riparian systems are intimately linked with adjacent upland areas, and many species that are restricted to riparian habitats for breeding use upland areas surrounding riparian habitats for foraging. In addition, several insect and plant species are restricted to riparian habitats.

Ephemeral Ponds

Although this community by itself is not considered sensitive, it is recognized as sensitive in this case because it supports the Riverside fairy shrimp, a federal endangered species.

Wetlands and Waters of the United States

Wetlands and Waters of the United States are regulated by the State of California and the U.S Army Corps of Engineers. Onsite, Waters of the United States occur in ephemeral pond habitat and intermittent streams that cross several areas of the site. Wetland habitat is associated with southern sycamore riparian woodland and mulefat scrub. Jurisdictional Wetlands and Waters of the United States are shown in Exhibit 53.

Sensitive Plants

Two sensitive plants, Catalina mariposa lily (*Calochortus catalinae*) and intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), were detected onsite.

Catalina mariposa lily

Listing: USFWS: None; CDFG: None; CNPS: List 4, 1-2-3

Distribution: This species is distributed in all coastal counties from Santa Cruz County to San Diego, except Monterey County.

Habitat(s): The Catalina mariposa lily grows on heavy soils, usually in open grassland or scrubland.

Conservation Status: This lily is uncommon throughout its range. The main threat is development. The Catalina mariposa lily blooms from February through May (Skinner and Pavlik 1994).

Status Onsite: Eight stands were detected onsite (435 individuals), six of which (428 individuals) were in coastal sage scrub along the southern boundary of the site. The two additional stands (seven individuals) were in coastal sage scrub patches in the northeastern quadrant of the site.

Intermediate mariposa lily

Listing: USFWS: Category 2; CDFG: None; CNPS: List 1B, 2-2-3

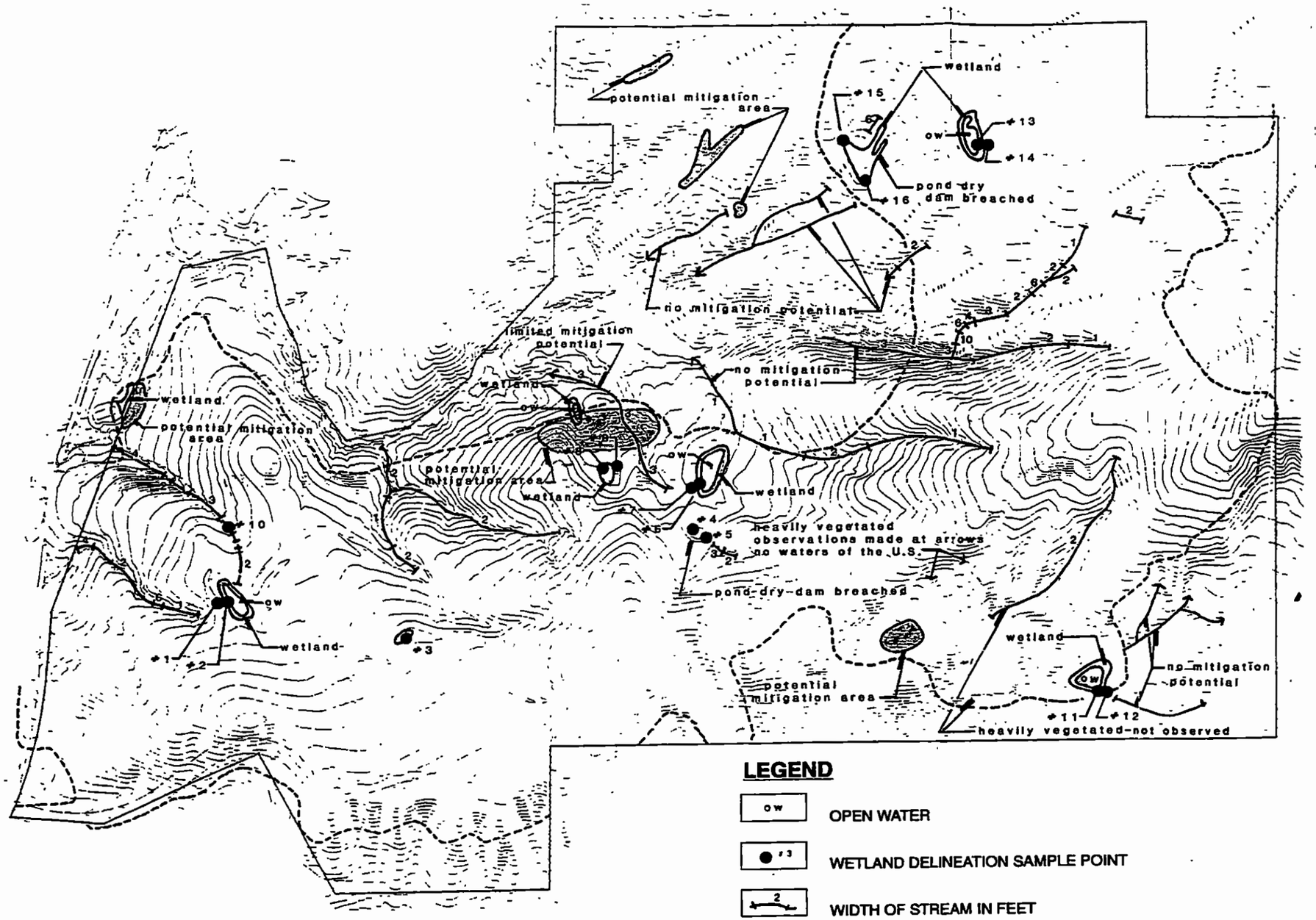
Distribution: This mariposa lily has only been recorded from Los Angeles, Orange, and Riverside counties.

Habitat(s): Dry, rocky slopes are the habitat of this species.

Conservation Status: The main threats are development, fuel modification, and road construction. The intermediate mariposa lily blooms from May through July (Skinner and Pavlik 1994).

Status Onsite: Three stand were detected onsite, totaling 18 individuals. Two stands are in the southwest quadrant of the site, while the remaining stand is in the southeast quadrant.

Since the surveys had adequate coverage to detect potentially occurring sensitive plant species, no additional plant species are expected to occur onsite. The plants which were determined originally to have a potential to occur onsite included Palmer's grappling-hook (*Harpogonella palmeri*), many-stemmed dudleya (*Dudleya multicaulus*), and prostrate spineflower (*Chorizanthe procumbens*).



LEGEND

ow	OPEN WATER
#3	WETLAND DELINEATION SAMPLE POINT
2	WIDTH OF STREAM IN FEET
	LIMIT OF REMEDIAL GRADING

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: 1"=400'
Source: Sweetwater Environmental Biologists, Inc.

N

Jurisdictional Wetlands and Waters of the United States

EXHIBIT No. 53

Sensitive Animals

Eight sensitive animals were observed during the most recent (1993/1994) site surveys. Riverside fairy shrimp, western spadefoot toad, coastal whiptail, orangethroat whiptail, Cooper's hawk (*Accipiter cooperii*), coastal cactus wren (*Campylorhynchus brunneicapillus*), loggerhead shrike (*Lanius ludovicianus*) and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). No coastal California gnatcatchers were observed onsite during the 1993/1994 surveys. Current 1997 surveys for the coastal California gnatchatcher have not been conducted to USFWS protocol, and as such, onsite coastal sage scrub habitat must be considered occupied by gnatcatchers until proven otherwise.

Riverside fairy shrimp

Listing: USFWS Endangered

Distribution: Extremely limited distribution in Riverside, Orange, and San Diego counties; and northern Baja California, Mexico. In Riverside County, known only from five vernal pools, in San Diego County, known only from two vernal pool complexes.

Habitat(s): Vernal and ephemeral pool habitats that are relatively deep and have low values for alkalinity and chloride presence. The Riverside fairy shrimp is considered a warm water species of fairy shrimp, and it hatches at water temperatures of 15 to 17°C.

Status Onsite: Six of the ponds and two recently dried ponds (their dams have been breached) have evidence of Riverside fairy shrimp. These locations represent a significant expansion of the shrimp's typical habitat range.

Western Spadefoot toad

Status: USFWS Regionally sensitive

Distribution: California Central Valley and San Francisco Bay area south along the coast to northwestern Baja California, Mexico.

Habitat: Mesa tops, valleys, low hills, floodplains, and washes. Southern California habitats include coastal sage scrub, chaparral, and grassland. Important habitat components include temporary pools (which form during winter and spring rains) for breeding and friable soils for burrowing.

Status Onsite: During focused surveys, western spadefoot tadpoles were observed in two of the ephemeral ponds onsite.

Coastal whiptail

Status: USFWS Regionally sensitive

Distribution: Ventura County south, in cismontane California, to south-central Baja California, Mexico.

Habitat(s): Open Venturan-Diegan transitional coastal sage scrub, grasslands, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing habitat. Important habitat components include open, sunny areas for basking, plant litter, and an abundance of invertebrate prey, particularly termites.

Status Onsite: One was observed.

Orangethroat whiptail

Status: USFWS Regionally sensitive; CDFG CSC

Distribution: Southern Orange County and southern San Bernardino County (Colton), south to the cape of Baja California, Mexico.

Habitat: Venturan-Diegan transitional coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include a mosaic of open, sunny areas and shade for thermoregulation, and an abundant invertebrate prey base, particularly termites.

Status Onsite: Two individuals were observed on a slope in the southeast quadrant of the site, adjacent to O'Neill Regional park.

Cooper's Hawk

Status: Nesting; CDFG CSC

Distribution: Throughout the continental United States excluding Alaska, parts of Montana, and parts of the Dakotas. Winters south to Mexico and Honduras.

Habitat: In San Diego County tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrublands or fields.

Status Onsite: One individual was observed hunting in grassland on the northern half of the site.

Coastal cactus wren

Status: USFWS Regionally sensitive/CDFG CSC

Distribution: This coastal cactus wren's range extends from Southern Orange County (San Juan Creek) south through San Diego County into northwestern Baja California, Mexico.

Habitat: This wren of the coastal slope is restricted to clumps of prickly-pear (*Opuntia littoralis and O. oricola*) or cholla (*O. prolifera*) growing in coastal sage scrub or along washes. Because of this restriction to cactus patches, the coastal cactus wren naturally occurred in small isolated populations scattered throughout the coastal lowlands.

Status Onsite: A total of 10 individuals was observed in the southern half of the project site, with most (seven) occurring on the slopes contiguous habitat in O'Neill Regional Park.

Loggerhead shrike

Status: CDFG CSC

Distribution: Widespread, but declining, throughout North America. Winters south to Central America.

Habitat: Open habitats including grasslands, scrublands, and ruderal areas with adequate perching locations.

Status Onsite: Observed in 1989 but not mapped.

Southern California rufous-crowned sparrow

Status: USFWS Regionally sensitive; CDFG CSC

Distribution: This coastal species occurs from Ventura County across to Los Angeles county and southeast through Orange, Riverside and San Diego counties to northwestern Baja California, Mexico.

Habitat: Mainly inhabit Venturan-Diegan transitional coastal sage scrub where it occurs in rocky hillsides and canyons, but they also may be found in open sage scrub/grassy areas of successional growth (e.g., after a fire, etc.).

Status Onsite: Ten individuals were observed on the southern half of the site, mostly (seven) on the slopes of habitat contiguous with O'Neill Regional Park. Two additional individuals occur just offsite near the southern half of the site and in the northeast corner.

coastal California gnatcatcher

Status: USFWS threatened

Distribution: The coastal California gnatcatcher occurs throughout specified habitat types in Orange, San Diego, Western Riverside and coastal Los Angeles counties.

Habitat: Mainly coastal sage scrub, with limited slope characteristics.

Status Onsite: None observed onsite based on previous 1993/1994 surveys, although current 1997 presence/absence surveys have not been conducted per USFWS protocol. As such, onsite coastal sage scrub habitat must be considered occupied by coastal California gnatcatchers until proven otherwise.

Table 27
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL FOR OCCURRENCE ONSITE

Species	Status	Potential/Habitat
Invertebrates		
Quino checkerspot *Euphydryas editha quino*	USFWS FE	Low; Habitat highly variable, but primarily coastal sage scrub. Food plants (*Plantago* ssp.) present. Focused surveys are needed for detection but are not warranted. This species is extremely rare in Orange County.
Reptiles		
San Diego Horned lizard *Phrynosoma coronatum blainvilii*	USFWS Regionally sensitive CDFG; CSC	High; chaparral, coastal sage scrub, food source (harvester ants [*Pogonomyrmex* sp.]) not seen but probably present. Focused surveys may be needed for detection but are not warranted. Expected but not seen during surveys.
San Diego ringneck snake *Diadophus punctatus similis*	USFWS Regionally sensitive CDFG, CSC	Low to moderate; coastal sage scrub, chaparral, oak woodlands. Prefers moist habitats. Focused surveys needed for detection but are not warranted.
Coastal rosy boa *Lichanura trivirgata roseofusca*	USFWS Regionally sensitive	Low; rocky areas in coastal sage shrub, chaparral, and cactus scrub. Focused surveys needed for detection but are not warranted.

Table 27 (con't)
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL FOR OCCURRENCE ONSITE

Species	Status	Potential/Habitat
Birds Prairie falcon *Falco mexicanus*	CDFG CSC	Low; an uncommon visitor to grasslands and scrublands of Orange County.
Northern harrier *Ciscus cyaneus*	CDFG CSC	Moderate; habitat includes open areas, such as grasslands and adjacent habitats. Would have been observed if it consistently uses the site. Nevertheless, this rupture probably occurs in the site vicinity due to the amount of open habitat, especially to the southeast.
Burrowing owl *Speotyto cunicularia*	CDFG CSC	Low; often found in disturbed sites where ground squirrel burrows are present, but would have been observed if present.
Bell's sage sparrow *Amphispiza belli belli*	USFWS C2 CDFG CSC	Moderate; habitat is coastal sage scrub and chaparral. Not common and apparently absent from much of Orange County. Would likely have been detected if present.
Tricolor blackbird *Agelaius tricolor*	USFWS Regionally sensitive CDFG; CSC	Moderate potential as a winter visitor and as a migrant; mostly in grasslands and wetlands
coastal California gnatcatcher *Poplioptila californica*	USFWS threatened	Low potential based on previous onsite field surveys/coastal sage scrub.

Table 27(con't)
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL FOR OCCURRENCE ONSITE

Species	Status	Potential/Habitat
Mammals		
Pallid bat *Antrozous pallidus pacificus*	CDFG CSC	Moderate; habitat highly variable, could forage throughout the site, but roosting sites are likely elsewhere. Focused surveys needed for detection but not warranted.
Greater western mastiff bat *Eumops perotis californicus*	USFWS Regionally sensitive CDFG; CSC	Moderate; could forage in any habitat onsite, but roosting sites are likely elsewhere. Focused surveys needed for detection but not warranted.
Dulzura California pocket mouse *Chaetodipus californicus femoralis*	USFWS Regionally sensitive CDFG CSC	Low to moderate; dense chaparral, but occasionally other scrublands. Trapping necessary for detection but not warranted.
San Diego desert woodrat *Neotoma lepida intermedia*	USFWS Regionally sensitive CDFG, CSC	Moderate, woodrat sign was found, but it could have been dusky-footed woodrat. Habitat is coastal sage scrub and other xeric habitats. Trapping necessary for detection but not warranted.

Several additional animal species may occur onsite. The majority of these species have a low to moderate potential for occurring onsite. None of the species warrant further surveys because they are of a generally low level of sensitivity and adequate mitigation can be accomplished by mitigating for their habitats.

4.7.2 EFFECTS FOUND TO BE INSIGNIFICANT

All of the effects on biological resource factors were determined to be potentially significant.

4.7.3 PROJECT IMPACTS

Vegetation communities

Implementation of the proposed project results in the direct removal of 191.4 acres (86 percent) of onsite and 19.8 acres of offsite vegetation as shown in Table 28. A total of 30.8 acres (14 percent) of undeveloped land will remain in open space.

Table 28
IMPACTED VEGETATION (ACRES) SUMMARY

Habitat	Existing	Onsite Impacts	Percent Impact (%)	Preserved Onsite	Percent Impact (%)	Offsite Impacts	Total
• Venturan-Diegan Transitional Coastal Sage Scrub (disturbed and undisturbed)	67.1	44.2	66	22.9	34	6.1	50.3
• Southern Mixed Chaparral	5 4	1.8	33	3.6	67	1.9	3.7
• Coast Live Oak Woodland (acreage/individuals)	14.5/298	14.0/284	97	0 5/14	3	0 6/5	14.6
• Southern Sycamore Riparian Woodland	0.5	0.5	100	0 0	0	2.8	3.3
• Mulefat Scrub	2.9	2.8	97	0.1	3	1.0	3.8
• Ephemeral Pond	0.8	0.6	75	0.2	25	0	0.6
• Annual Grassland	125.3	121.8	97	3.5	3	4.8	126.0
• Agriculture	4.6	4.6	100	0.0	0		
• Disturbed	1.1	1.1	100	0.0	0	2.6	3.7
TOTAL	222 2	191.4	84	30.8	16	19.8	211.19

Venturan-Diegan Transition Coastal Sage Scrub/NCCP

A total of 50.3 acres of coastal sage scrub would be impacted by implementation of the proposed project. The Natural Communities Conservation Planning (NCCP) program Southern Subregions is currently in preparation and is anticipated to be completed in late 1997 or early 1998. The USFWS/CDFG have developed interim loss procedures for coastal sage scrub habitat, which may occur during preparation of the subregional NCCP. Under the requirements of the Interim Take 4(d) Rule and guidelines, up to 5% of the coastal sage scrub habitat may be impacted during preparation of the southern subregional NCCP. In addition, the following NCCP findings must be made prior to coastal sage scrub impacts:

1) The proposed habitat loss is consistent with the interim loss criteria in the Conservation Guidelines.

   a) The habitat loss does not cumulatively exceed the five percent guideline for loss of CSS within a subregion.
   b) The habitat loss will not preclude connectivity between areas of high habitat values.
   c) The habitat loss will not preclude or prevent the preparation of the subregional NCCP.
   d) The habitat loss has been minimized and mitigated to the maximum extent practicable, in accordance with the Interim Mitigation Criteria of the NCCP Process Guidelines.

2) The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild.

3) The habitat loss is incidental to otherwise lawful activity.

Implementation of the proposed project would not result in the cumulative exceedance of the five percent loss of coastal sage scrub in the southern subregion. When added to the current total loss to date of 296 acres (authorized and pending), and 274 acres recorded from non-NCCP authorized projects, the maximum loss of 50.3 acres associated with this project would bring the total loss to 620 acres, which is about 2.4% of the 26,315 acres of coastal sage scrub in the Southern Subregional NCCP program area.[11]

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[11] *Personal Communications - Gary Medeiros, EMA, Environmental Planning 10/23/95.*
- Written Communication, Timothy Neely, Administrator, Planning & Zoning, 5-13-97.

Southern Mixed Chaparral

Approximately 1.8 acres (33 percent) of southern mixed chaparral would be directly impacted onsite by the project, and an additional 1.9 acres would be impacted offsite. These impacts are not considered to be significant because of the small amount of impact and the fact that southern mixed chaparral is not considered a sensitive habitat.

Mulefat Scrub and Southern Sycamore Riparian Woodland

Mulefat scrub (3.8 acres) would be impacted where it is associated with three of the ephemeral ponds and in three intermittent streambeds, and southern sycamore riparian woodland (3.3 acres) would be impacted by remedial grading along the western boundary of the site. These impacts would be significant because of the two habitats' values as wildlife habitats and because of their function as wetlands or Waters of the United States. Impacts to these habitats would require permitting as discussed below.

Coast Live Oak Woodland

A total of 14.6 acres (97 percent) of coast live oak woodlands (312 individuals) would be impacted by the proposed project, while 0.5 acres (14 individuals) will be preserved. Impacts to oak woodlands are considered significant because of their wildlife values, their function in watershed protection and, in the case of the project site, their function as part of the planned NCCP regional wildlife corridor.

Ephemeral Ponds

0.6 acres of the existing ephemeral ponds would be impacted as a result of project implementation The 0.6 acres of impact to ephemeral ponds is significant due to the presence of Riverside fairy shrimp. In addition, impacts to portions of this habitat would require permitting as discussed below because of its function as a Waters of the United States.

Agriculture and Annual Grassland

Approximately 4.6 acres (100 percent) of agriculture, 121.79 acres (97 percent) of annual grassland, and 1.1 acres of disturbed land (100 percent) will also be impacted. An additional 4.8 acres of annual grassland and 2.6 acres of disturbed land will be impacted offsite. These impacts are not considered significant because the habitats are not sensitive.

Wetlands and Waters of the United States

Implementation of the proposed project would result in impacts to jurisdictional Wetlands/Waters of the United States, as regulated by the U.S. Army Corps of Engineers, summarized in Table 29.

Table 29
IMPACTED WETLANDS/WATERS OF THE UNITED STATES

Type of Habitat	Acres
Wetlands (0.84 ac Mulefat/0.81 ac Sycamore Woodland)	1.65
Non-Wetlands Waters of the U.S. (Intermittent Streams and Man-Made Stock Ponds)	1.78
Total	**3.43**

A Federal Clean Water Act section 404 individual permit issued by the U.S. Army Corps of Engineers would be necessary for direct impacts to 1.65 acres of wetlands (0.84 acre of mulefat scrub and 0.81 acre of southern sycamore riparian woodland) and 1.78 acres of Waters of the United States (intermittent streams and ephemeral ponds). As part of the permitting process, there may be required mitigation measures independent of the requirements of CEQA for impacts to wetlands. Only a portion of the mule fat scrub being impacted was delineated as a wetland (0.84 acres), although the total impact to this community is 3.8 acres. Only a portion of the southern sycamore riparian woodland being impacted was delineated as a wetland (0.81 acres), though the total impact to this community is 3.3 acres (0.5 acres onsite and 2.8 acres offsite). A Streambed Alteration Agreement with CDFG will also be required for the 8.1 acres of impacts to wetland habitats (southern sycamore riparian woodland, mule fat scrub, and ephemeral pond).

Sensitive Plants

Seven of the eight stands of Catalina mariposa lily, including approximately 314 (72 percent) of the estimated 435 individuals, would be eliminated by the proposed project. Approximately 121 individuals of the remaining stand would remain in open space. Impacts to this species are not considered to be significant due to its relatively low level of sensitivity, the relatively small population size onsite, and the relatively board distribution of this species throughout its range.

Two of the three stands of intermediate mariposa lily would be totally impacted by the proposed

project. Only one of the estimated 18 individuals (5 percent) would be directly impacted. Impacts to this species are considered to be adverse but not significant due to the small size of the total site population and, therefore, low regional significance of the onsite population.

Sensitive Animals

Riverside Fairy Shrimp

Impacts to all ponds where fairy shrimp were detected are significant because of the limited distribution of the species, and because it is federally-listed as endangered.

Western Spadefoot Toad

One of the two ponds where larvae were found will be impacted by the project. The impact to this species is not significant because of the species low level of sensitivity and because the population onsite is not of regional significance due to its small size.

Orangethroat Whiptail, Coastal Whiptail, Coastal Cactus Wren, and Southern California Rufous-Crowned Sparrow

The orangethroat whiptail and coastal whiptail prefer the open coastal sage scrub and southern mixed chaparral areas of the site. Two orangethroat whiptails and one coastal whiptail were observed, although many more are expected. Approximately 54.0 acres of combined coastal sage scrub and chaparral would be directly impacted (including offsite impacts), leaving 26.5 acres in open space. Ten coastal cactus wrens and twelve southern California rufous-crowned sparrows are distributed throughout the coastal sage scrub onsite and just offsite. Approximately 50.3 acres of potential nesting and foraging habitat (coastal sage scrub) would be impacted on and offsite, including at least portions of areas occupied by all twelve pairs of sparrows and at least six pairs of coastal cactus wrens. Impacts to these four species combined are considered significant but mitigable.

Cooper's Hawk

No direct impacts to known Cooper's hawk nesting habitat are anticipated, because no nests were observed during the surveys. Impacts to foraging habitat onsite are considered adverse but not significant since it is unlikely that any active nests would be disturbed. Should Cooper's hawks breed on the site, the loss of foraging habitat could affect, at most, a portion of one territory of

one pair of Cooper's hawks, and this impact would not be considered significant.

Loggerhead shrikes were observed onsite, but it is unknown how many or whether they were breeding onsite. Assuming that they still use the site, the project impacts will still not be significant because of the low sensitivity of this species.

Coastal California Gnatcatcher

Previous field surveys (1993/1994) have determined that onsite coastal sage scrub habitat is not occupied by coastal California gnatcatchers, although current 1997 gnatcatcher surveys have not been completed to USFWS presence/absence protocol. As such, onsite coastal sage scrub habitats must be considered occupied by coastal California gnatcatcher until proven otherwise.

Raptor Foraging Habitat

Impacts to all habitats onsite would total 206.2 acres, while offsite impacts would total 7.0 acres. These impacts would generally add to the loss of raptor foraging areas in the region. However, because of the disturbed nature of most of the present habitat and the restoration of oak woodland and project slopes, sufficient habitat would remain so that these impacts are not considered significant.

Potentially Occurring Species

A list of potentially occurring mammals and additional species is shown in Table 27. Additional focused surveys (that is, small mammal trapping) would be required to determine the status of potentially occurring sensitive mammal species onsite. Given the low sensitivity of the potentially occurring species, their distribution throughout other parts of Orange County, and the low amount of anticipated impacts to their respective habitats, these impacts are considered to be adverse but not significant.

Wildlife Movement

Implementation of the proposed project would directly impact wildlife movement through the project site, as it does not contain any design features which seek to facilitate wildlife movement. It can not be assumed that wildlife would be able to move through the project site as currently designed. The project, as currently proposed, may hinder or preclude the preparation of the southern subregional preserve, due to restricted wildlife movement.

Impact Significance Criteria

The impact significance criteria listed below, are based on a combination of the following: the Natural Community Conservation Planning (NCCP) information from the County of Orange, including acreages of habitat types proposed to be included in the Southern Subregion reserves; significance criteria, adopted regulations and stated policies of the California Department of Fish and Game, California Resources Agency, U.S. Army Corps of Engineers, and the U.S. Department of the Interior Fish and Wildlife Service.

The criteria listed below have been developed with the knowledge of the habitat resources on the project site. They have been focused to address the project site, including the context of this site within the NCCP Southern Subregion.

The project will have a potentially significant effect if it results in one of the following:

- For the federally listed coastal California gnatcatcher, other NCCP "target and identified species," coastal sage scrub (CSS) habitat, and wildlife movement corridors, the project would impair the ability of the Lead Agency (the County of Orange) to prepare an effective subregional NCCP consistent with the requirements of the Special 4(d) Rule for the coastal California gnatcatcher, FESA Section 10, and the NCCP Planning guidelines.

  The California Resources Agency and Department of Fish and Game have stated their intent to declare that significant impacts for individual projects addressed by a NCCP should be evaluated and determined based on the above standard (consistency with the subregional NCCP). Once a subregional NCCP has been approved by State and Federal agencies, a project whose CSS impacts have been addressed by the approved NCCP should be considered to be mitigated to below a level of significant effect.

- For other species of limited distribution in a subregion, or otherwise of high sensitivity; a) loss of habitat such that the potential benefits of any current or expected process to maintain viable levels of the species, through study, listing or a proposal to list the species would be diminished by a loss of the habitat at this time; b) the loss would be a non-recoverable loss during a time when the species and its habitat are undergoing a rapid decline; or c) loss of a consequential portion of a known population in the subregion.

- Project implementation results in notable net loss of a biotic community that is subject to local, State and/or Federal regulations (e.g., riparian communities) or that is otherwise of

very limited occurrence in the subregion (e.g., oak woodland and native grassland).

- Project implementation results in the direct impairment of wildlife movement on a local or regional scale.

4.7.4 SIGNIFICANT IMPACTS OF PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to application of outlined mitigation measures, would result in significant impacts to the following resources:

Sensitive Vegetation

Project implementation would result in the direct impact to : 1) 50.3 acres of Venturan-Diegan transitional coastal sage scrub; 2) 14.6 acres of coast live oak woodland; 3) 5.0 acres of southern sycamore riparian woodland; 4) 3.8 acres if mulefat scrub; and 5) 0.6 acres of ephemeral pond.

Sensitive Animals

Implementation of the proposed project would result in direct impacts to the Riverside fairy shrimp, a Federal endangered species. In addition, impacts to the orange-throated whiptail, western spadefoot toad, coastal whiptail, coastal cactus wren, and Southern California rufous-crowned sparrow, cooper's hawk, and loggerhead shrike will also result. Based on the absence of a current (1997) coastal California gnatcather survey conducted to USFWS presence/absence survey protocol requirements, impacts to coastal California gnatcatchers must be considered significant until proven otherwise by future surveys.

Wildlife Movement

Implementation of the proposed project would conflict with existing wildlife movement corridors, as depicted in the Foothill-Trabuco Specific Plan, Exhibit 52 and is identified in Section 4.7.1 of this EIR.

4.7.5 CUMULATIVE IMPACTS

Contributions to Cumulatively Significant Impacts

Considered alone, many impacts associated with implementation of a single project may not meet the

criteria of significance, either because project implementation impacts a relatively small area or because the resources impacted are only moderately sensitive; many candidates for federal listing fall under this category. However, when considered in the context of past and ongoing development of the region, a single project's impacts can be seen as a contribution to cumulatively significant effects.

In light of the fact that the Southern Subregional NCCP preserve has not been finalized, cumulative impacts to coastal sage scrub habitat are considered significant.

- Implementation of the proposed project in conjunction with other projects would result in cumulative impacts to oak woodland and sycamore riparian habitat.

- Implementation of the proposed project would contribute to cumulatively significant impacts to wildlife movement in the vicinity of the proposed project.

- Implementation of the proposed project would contribute significant impacts to the coastal California gnatcatcher, until such time as future field surveys, conducted to 1997 USFWS presence/absence protocol, demonstrates that onsite coastal sage scrub habitat is not occupied by California gnatcatchers.

- Implementation of the proposed project would contribute to cumulatively significant impacts to Riverside fairy shrimp.

- Implementation of the proposed project would contribute to cumulatively significant impacts to coast live oak and southern sycamore/riparian woodland.

- Implementation of the proposed project would contribute to cumulatively significant impacts the completion of the NCCP Southern Subregional reserve.

4.7.6 MITIGATION MEASURES

Conceptual Mitigation Program

As outlined in Section 2.8, mitigation measures which would result in, or require physical change to, the layout of the proposed project as shown on recorded tract map 10692, are not possible due to the inability to deviate from the final recorded tract map.

The following conceptual mitigation program has been developed based on input from the USFWS

and CDFG. During the public review process for EIR 561 and the N.O.P. comment period for EIR 566.

Impacts to Venturan-Diegan transitional coastal sage scrub habitat will require a mitigation ratio of 1.5:1 because although it is ranked as intermediate value habitat (under the NCCP), in its current condition much of the habitat being impacted is fragmented, is at least partially disturbed, and it may not support the coastal California gnatcatcher. According to the NCCP Evaluation Logic Flow Chart, the coastal sage scrub on the project site is considered intermediate value for long-term conservation because although it is not the most dense coastal sage scrub in the region, it is located next to a higher value district (O'Neill Regional Park). Impacts to mulefat scrub will be mitigated at 1:1 because of the poor quality of the existing habitat, and because it is surrounded by agriculture and annual grassland habitats. Southern sycamore riparian woodland will be mitigated at a ratio of 3:1 because of its high habitat quality. Oak woodland habitat will be mitigated at a ratio of 1:1, due to its moderate habitat values. Ephemeral pond habitat will also need to be replaced at a 2:1 ratio. Refer to Table 30 for a summary of the biological mitigation requirements.

Table 30
CONCEPTUAL BIOLOGICAL MITIGATION PLAN REQUIREMENTS

Habitat	Sensitive Habitat Impact Acreage	Mitigation Ratio	Mitigation Acreage
Venturan-Diegan Coastal Sage Scrub	50.3	1.5:1	75.5 Acres
Mulefat Scrub	3.8	1:1	3.8 Acres
Southern Sycamore Riparian Woodland	3.3	3:1	9.9 Acres
Oak Woodland	14.6	1:1	14.6 Acres
Ephemeral Pond	0.6	2:1	1.2 Acres
Total	**72.6**		**105.0 Acres**

The biological resource mitigation measure outlined above and summarized in Table 30, can not be implemented onsite and must be implemented offsite. Specific standard county conditions and mitigation measures have been developed to ensure that a comprehensive biological resources mitigation program is devised and approved by the County of Orange, in conjunction with USFWS and CDFG prior to the issuance of grading permits.

Project Design Features

No PDFs proposed.

Standard County Conditions and Mitigation Measures

SC 7-1 Pursuant to Section 711.4 of the Fish and Game Code, the applicant shall comply with the requirements of AB 3158, prior to the filing of the Notice of Determination for the project, in a manner meeting the approval of the Manager, PDS/Environmental and Project Planning Services Division.

SC 7-2 Prior to the issuance of any grading permits, the applicant shall obtain a Streambed Alteration Agreement covering the affected water courses and wetland areas within the proposed project area from the California Department of Fish and Game. A 1603 Streambed Application has been submitted to CDFG. All Streambed alteration activities shall be carried out in accord with the requirements of an approved Streambed Alteration Agreement.

SC 7-3 Prior to the issuance of any grading permits, the applicant shall obtain the necessary individual or nationwide permit (pursuant to Section 404 of the Federal Clean Water Act) covering all affected wetland areas from the U.S. Army Corps of Engineers, Los Angeles District. All wetland areas shall be subject to the specifications of the 404 permit as determined by the Corps of Engineers. A copy of the 404 permit shall be submitted with the first grading permit application for the proposed project to the Manager, PDS/Subdivision and Grading Services Division.

SC 7-4 Prior to the issuance of a grading permit, as required by participation in the Natural Community Conservation Planning/Coastal Sage Scrub (NCCP) agreement signed by the County on May 1, 1992, the project applicant shall provide an accounting summary, in acres or portions thereof, of coastal sage scrub scheduled to be impacted by removal through grading in a manner meeting the approval of the Administrator, Planning & Zoning. (See Section 4.7.3.)

SC 7-5 Prior to the issuance of a grading permit, the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the U.S. Fish and Wildlife Service, in a manner meeting the approval of the Administrator, Planning & Zoning and Manager, PDS/Grading Services Division, in consultation with the Administrator, Planning & Zoning.

SC 7-6 Notwithstanding the tentative map, no grading shall occur within the Natural Community Conservation Plan (NCCP) enrolled area except as in a manner meeting the approval of the Administrator, Planning and Zoning.

SC 7-7 Prior to the issuance of any grading permit, approval of any activity that involves removal of any native vegetation from subject site including clearing, grubbing, mowing, discing, trenching, grading, fuel modification, or other related construction-related activities, the applicant shall obtain written proof from the U.S. Fish and Wildlife Service that said activity complies with the Federal Endangered Species Act. This evidence shall be submitted to the Manager, PDS/Subdivision and Grading Services Division, for review and approval, in consultation with the Administrator, Planning and Zoning.

SC 7-8 Prior to the issuance of grading permits the applicant shall submit a landscape and tree preservation plan to the Manager, PF&R/Harbors Beaches and Parks Division, for review and approval in accordance with the following guidelines:

A. To the maximum extent feasible, all existing native and exotic trees and other significant vegetation shall be preserved in conjunction with any development activity.

B. A tree preservation plan shall be prepared by a landscape architect for all development projects which identifies the location, size and species of all trees having a trunk diameter of 5 inches or greater (measured at four and one-half feet above ground level) and shrubs having a trunk or branch diameter of 3 inches or greater. The plan shall show which plants are proposed for removal and where transplanted and/or replacement plants will be located. Tree preservation plans shall be approved prior to issuance of grading permits, or where grading permits are not required, prior to issuance of building permits.

C. Trees removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement by a combination of 1 and 15-gallon plants at a minimum ratio of 5:1. The following sliding scale shall also be used for trees to determine if more than the minimum number of replacement trees are required.

Tree Replacement Scale

Trunk Diameter (inches) of Tree Removed At 4½ Feet Above Ground Level	Total Number of Replacement
5 to 11	5 (1-15 gal / 4-1 gal)
12 to 17	7 (1-15 gal / 6-1 gal)
18 to 23	10 (2-15 gal / 8-1 gal)
24 to 35	12 (2-15 gal / 10-1 gal

Any oak exceeding 35 inches in diameter should be preserved, transplanted or replaced in accordance with the provisions outlined in Section E of the mitigation measure. In the event that all required replacement trees will not fit on the property, increase in container size will be considered in conjunction with reductions in replacement quality.

D. Significant shrubs removed in accordance with an approved tree preservation plan should be replaced by a combination of transplanting to another location on the subject property and/or replacement by 5-gallon plants at a minimum ration of 3:1.

E. All other plants not specified in Guidelines C and D above that are removed in accordance with an approved tree preservation plan should be either transplanted to another location on the subject property or replaced by 15-gallon plants for trees and 5-gallon plants for shrubs at a minimum ration of 1:1. The two 35" + oak trees impacted by project implementation, will be mitigated by an enhanced replacement ratio (5-15 gal/10-1 gal) to the satisfaction of the Manager, PF&R/Harbors Beaches and Parks Division.

F. All transplanting of trees shall be performed by an experienced nursery or other landscape contractor, who shall care for the trees for at least six months after transplanting.

G. Prior to issuance of final certificates of use and occupancy, all transplanted or replacement trees and shrubs shall be installed in accordance with the tree preservation plan

H. Oak trees shall not be subjected to increased runoff from irrigation systems, impermeable surfaces, storm drain discharge, etc.

I. Natural drainage courses and natural grades in proximity of, and providing seasonal irrigation to oak trees shall not be altered.

J. Grading, placement of fill, storage of building materials and heavy equipment, structural development, and hardscape (e.g., roads, sidewalks, patio slabs and pool decks) shall be prohibited within the drip line (outer edge of branches) of any tree. During grading and construction operations, all trees shall be temporarily fenced off with chain link fencing to protect such areas.

K. Use of pre-emergent weed killers shall be prohibited within 10 feet of the drip line of any individual tree and within any natural drainage course which seasonally irrigates trees.

L. Use of soil sterilizers shall be prohibited because they kill everything in the soil.

SC 7-9 Specify areas/lots to be dedicated or irrevocably offered to the County in fee or easement for landscape maintenance purposes, scenic or resource preservation purposes or resource replacement shall be landscaped, equipped for irrigation, and improved in accordance with an approved plan as stated below:

a) Preliminary Plan -An agreement shall be entered into and financial security posed guaranteeing landscape improvements and the maintenance thereof based on a preliminary landscape plan showing major plant material and uses, with a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Said plan shall take into account the previously approved landscape plan for AP 95-7, the EMA Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and Specific Plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).

b) Detailed Plan - Prior to the issuance of any building permit(s), a detailed landscape plan shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Detailed plans shall show the detailed irrigation and landscaping design.

c) Installation Certification - Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, said improvements shall be installed and shall be certified by a licensed landscape architect or licensed landscape contractor, as required, as having been installed in accordance with the approved detailed plans. Said certification, including an irrigation management report for each landscape irrigation system, and any other required implementation report determined applicable, shall be furnished in writing to the Manager, PFR/Construction Division, and the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use and occupancy.

SC 7-10 Prior to the issuance of precise grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), EMA Standard Plans, area plan 95-7, scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation Plan) Said plan shall be reviewed by the future homeowners association and be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division.

SC 7-11 Prior to the issuance of grading permits, the applicant shall provide additional evidence that the onsite coastal sage scrub habitat is not occupied by California gnatcatchers, in accordance with current USFWS protocol (7 in season/9 out of season pass surveys) to the satisfaction of the USFWS and the Administrator, Planning and Zoning. Should occupied coastal sage scrub habitat be identified onsite by the surveys consultation shall be initiated with the USFWS, and a coastal sage scrub/gnatcatcher mitigation plan shall be developed to the satisfaction of the USFWS and the Administrator, Planning and Zoning prior to the issuance of grading permits.

SC 7-12 Prior to the issuance of grading permits, the applicant shall provide appropriate measures to mitigate the project related impacts to onsite wildlife movement, to the satisfactin of the USFWS, CDFG and the Administrator, Planning and Zoning. Mitigation shall consider onsite as well as offsite mitigation options, and established fee programs.

SC 7-13 Prior to the issuance of grading permits, the applicant shall provide assurances to the satisfactin of the County NCCP coordinator and the Administrator, Planning and Zoning, that the proposed project will participate in the NCCP planning process and not preclude the finalization of the Southern Subregional reserve component of the NCCP.

SC 7-14 Prior to the issuance of grading permits, the applicant shall prepare a relocation and establishment mitigation plan, designed to mitigate impacts to Riverside fairy shrimp/pond habitat, wetlands, and southern sycamore woodland, to the satisfaction of the Administrator, Planning and Zoning, in consultation with USFWS and CDFG. Mitigation shall consider onsite as well as offsite mitigation options, as well as, established fee programs.

Additional Mitigation Recommendations

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner acceptable to the Manager, Environmental and Project Planning Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division.

AM 7-15 The following recommendations are proposed to further minimize some of the proposed impacts.

- Where possible, bulbs of individual Catalina Mariposa Lily and Intermediate Mariposa Lily that are to be impacted shall be dug up and transplanted to a suitable habitat with similar soil, slope exposure, etc.

- Lighting within development projects adjacent to conserved habitat should be selectively placed, shielded, and directed away from that habitat. In

addition, lighting from homes abutting conserved habitat should be screened with vegetation, and large spotlight-type lighting that may affect conserved habitat should be prohibited. These lighting restrictions should be incorporated into the project's CC&Rs.

4.7.7 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the proposed project, in conjunction with all of the identified mitigation measures, would reduce all impacts to less than significant, with the exception of the following:

- Project specific and cumulative impacts to coastal sage scrub, mulefat scrub, southern sycamore woodland, oak woodland and ephemeral ponds will remain significant and unavoidable. Once an Interim Loss Habitat Mitigation Plan has been approved, OCPDS will issue a letter determining that the impact to coastal sage scrub has been reduced to less than significant.

- Impacts to the Riverside fairy shrimp would remain unavoidable and adverse, until such time as the U.S. Fish and Wildlife Service completes a Section 7 (Endangered Species Act) consultation as part of the ACOE Section 404 process, resulting in a biological opinion, which indicates that the mitigation plan would not jeopardize the survival of the species.

- Impacts to wildlife movement would remain unavoidable and significant.

4.8 AESTHETICS

4.8.1 EXISTING ENVIRONMENTAL SETTING

The project site is located approximately ½ of a mile south/southeast of the intersection of El Toro and Live Oak Canyon Roads, in the foothills of the Santa Ana Mountains, within the boundaries Foothill/Trabuco Specific Plan area. The project site is located in the northwest portion of the Specific Plan area within the district designated as the Upper Aliso Planning Area. Specific Plan goals and regulations are intended to guide future development with the overriding purpose of preserving the area's rural character and abundant natural and scenic resources.

Containing approximately 222.23 acres, the irregularly shaped project site is surrounded by the following land uses: north - Saint Michael's Abbey and School and low density residential and ranch

land uses, east - widely spaced low density single family residential and a rural church, south - the Ramakrishna Monastery, O'Neill Regional Park, and the Hidden Ridge medium/high density residential tract, west - Aliso Creek, El Toro Road and the Portola Hills planned community. The Hidden Hills and Portola Hills developments are both located outside the Foothill/Trabuco Specific Plan area. Existing views of the project site from surrounding land uses are shown in Exhibits 56-58.

The project site consists of moderate to steep rolling hills ranging in elevation from approximately 1,000 to 1,550 feet above sea level. General elevation change occurs from a low point (1,015 feet) at the southwest corner of the site to the high point of (1,640 feet) near a proposed water tank located just northeast of the project boundary. A designated major ridgeline located near the eastern portion of the site and running in an essentially north - south direction, crosses the site near the northeast corner. Surrounding topography consists of a similar combination of steep to moderate hills and canyons with generally similar elevation ranges as the project site.

Due to the varied elevations of the project site and surrounding topography, the subject property will be visible from numerous locations in the vicinity. The site is presently undeveloped affording a view of natural rolling topography, grasslands and oak woodlands, which generally are considered to be scenic amenities. Ongoing cattle grazing activities have altered the biological resources onsite and resulted in an overgrazed visual condition for a majority of the site.

4.8.2 EFFECTS FOUND TO BE INSIGNIFICANT

The proposed project will be visible from existing development located south of the site in Mission Viejo (Altisima "Road"). Due to the distance of this location from the project site, aesthetic visual impact of site development is considered insignificant. Altisima is located over one mile south of the site at a slightly higher elevation and has a view of an intervening canyon located within O'Neill Regional Park and the southern ridgeline of the subject property. Nearly the entire proposed project and off site water tank will be visible from this location. Significant potential aesthetic impact will be mitigated however, by the distance of this location from the project site. Further, screening mitigation is also anticipated from the replanting of graded slopes with native vegetation and common area landscaping.

Live Oak Canyon Road is a designated scenic highway located approximately 1/4 mile north, northeast and east of the project site. Partial public view of the project will be possible from a small portion of this roadway near its intersection with the Harris Truck Trail northeast of the site; however, only a few homes are potentially visible from this location. Therefore, potential impact to the public's enjoyment of the aesthetic resources visible from this scenic highway is not anticipated

to be significant.

4.8.3 PROJECT IMPACTS

Substantial alteration of the existing onsite aesthetic visual resources will occur with the development of the proposed project. Viewshed impacts will be primarily due to substantial direct and remedial site grading and the subsequent construction of 705 manufactured single family residences on site. Grading volumes are estimated at approximately 11.5 millions of cubic yards (2.6 millions of cubic yards of conventional and 8.9 millions of cubic yards of remedial). Significant change to existing landforms, due to the substantial cut and fill required to create flat buildable pad areas from the steep rolling terrain on site, will generate permanent alteration to the natural topography and have an associated aesthetic impact to the site's viewshed. Visual impact is not limited to topographic alteration, but will also include loss of a portion of an oak woodlands, onsite ponds, and annual grasslands. Approximately 211.12 acres of the site (191.4 onsite and 19.8 offsite) will be altered or disturbed by project development. 14% of the site will remain in undisturbed open space.

In addition, site development will change the surrounding property's viewshed of the site from essentially undisturbed natural rolling rangeland and oak woodland to an urban/suburban environment. Though approximately 14% of the site will be retained in a natural open space, the predominant view will be of man-made slopes, roads, manufactured single family residences, and planted landscaping This impact is permanent and unavoidable with site development.

The project proposes development of 705 manufactured residential units on minimum 2,630 square foot pads This intensity and scale of development could be perceived as aesthetically objectionable by nearby residents.

Another potential impact of site development is glare from night lighting of project streets and residences. The site currently generates no night lighting. As a result, adjacent land use experience a more natural night sky and view of the site. Glare from night lighting may impact the ability to view stars and the visual aesthetic resource of a naturally lit environment.

Potential impacts to visual and aesthetic site resources have been evaluated from the following specific locations listed below. Exhibits 60 - 62 show computer generated post development views and cross-sections from the following locations:

Saint Michael's Abbey and School - Located northwest and adjacent to the project site. Views of the project site from the main abbey compound are generally screened by intervening buildings on the

abbey property, mature vegetation and topography (see Exhibit 61). Proposed residences would be located approximately 300 feet from existing Abbey facility. A significant portion of the proposed development will be visible however, from other parts of the abbey grounds including the pool, recreation field and Stations of the Cross knoll. Views of the project from these various locations on the abbey grounds are considered potentially significant. Glare from night lighting will directly impact this property due to its proximity and its lower elevation from the project site allowing street and residence lighting to shine directly down on the abbey property.

Ramakrishna Monastery - The Ramakrishna Monastery has occupied this location directly adjacent to the southeast portion of the project site since 1946. Normally the monastery is occupied by seven resident monks and an occasional small number of short term visitors. Due to the contemplative purposes for which this facility exists, potential visual impact of site development may be particularly intrusive to monastery residents. Existing on site vegetation near the main monastery buildings and revegetation and common area landscaping of the project's graded slopes may provide additional screening of the site from the monastery property. Nevertheless, it appears that complete site screening will not be possible due to the project site's higher elevation and its proximity to the monastery grounds. Therefore, even with extensive project site landscaping a significant number of residences will remain visible from the monastery, particularly the shrine trail surrounding the monastery property.

Night lighting glare may also have a significant aesthetic impact on monastery residents from both street and normal residence lighting. Resident monks have indicated that night lighting glare from recently constructed residential development in the vicinity has already negatively impacted the quality of life at their facility.

A church and two dwellings are located immediately north of the Ramakrishna Monastery, and would be impacted to the same degree as the outlying areas of the monastery.

O'Neill Regional Park - Residential elevations and man-made slopes located near the south project property line will be visible to the public from the Live Oak Trail within O'Neill Regional Park. The trail view points are located over ½ mile approximately 2,900 feet from the project boundary. Though project views will be far enough away so that elevation details are not apparent, the mere visual presence of a large number of homes from a wilderness hiking trail is considered a significant aesthetic impact.

Portola Hills - Portola Hills is a 2,200 unit planned community located directly west of the project site, across El Toro Road at a similar elevation. Views of the project site will be extensive as

indicated in the viewshed analysis, and will encompass the entire proposed project and off site water tank (see Exhibit 60). Due to Portola Hills' elevation, mitigation of potential visual impacts to a level of insignificance is not possible.

Portola Hills residents night views of the site are currently of a dark naturally lit area. Subsequent project buildout will change their view of natural open space to a view of an artificially lighted urban hillside development. As with all aesthetic impacts, some individuals may find this night lighting change to be a negative impact, while others may consider night lighting when viewed from a higher elevation to be aesthetically pleasing.

Hidden Hills - Hidden Hills is located directly adjacent to the southwest portion of the project site. Viewshed analysis indicates that residents of this tract will have significant uphill view of residences constructed along the southern boundary of the proposed project (see Exhibit 62). This visual impact is considered potentially significant because of the close proximity of the proposed project to existing residences built at a lower elevation. This proximity between the two tracts may generate a feeling to existing residents that Saddleback Meadow homes are looming over their Hidden Hills tract, creating a sense of crowding and associated loss of privacy.

El Toro Road - The proposed project will be visible to motorists on El Toro Road and to bicyclists, equestrians and hikers utilizing the regional trail located parallel to El Toro Road and Aliso Creek west of the project site.

Live Oak Canyon Road - A small portion of the upper portions of the project will be visible from the intersection of Live Oak Canyon Road and Harris Truck Trail. Views of the project site from Live Oak Canyon Road north of the site are partially screened by intervening topography.

LEGEND

CSS	Venturan-Diegan Transitional Coastal Sage Scrub
CSS-D	Venturan-Diegan Transitional Coastal Sage Scrub-Disturbed
OW	Coast Live Oak Woodland
SW	Southern Sycamore Riparian Woodland
MFS	Mulefat Scrub
SMC	Southern Mixed Chaparral
EP	Ephemeral Ponds
AG	Annual Grassland
CULT	Agricultural
DIS	Disturbed
RUD	Ruderal

SENSITIVE ANIMALS

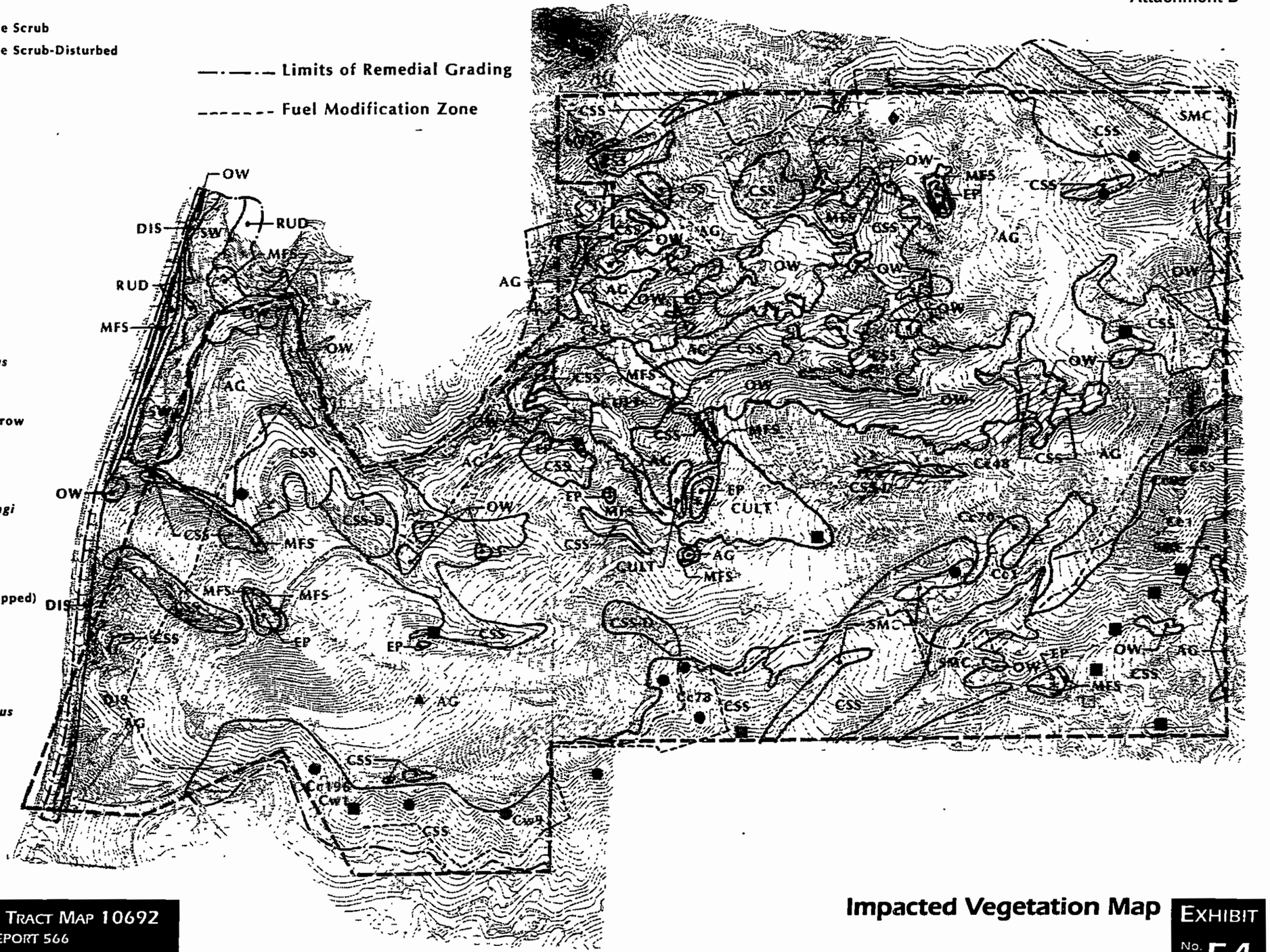
- * Riverside Fairy Shrimp *Streptocephalus woottoni*
- ▲ Coastal Whiptail *Cnemidophorus tigris multiscutatus*
- ■ Cactus Wren *Campylorhynchus brunneicapillus*
- Southern California Rufous-Crowned Sparrow *Aimophila ruficeps canescens*
- ◆ Cooper's Hawk *Accipiter cooperii*
- △ Orangethroat Whiptail *Cnemidophorus hyperythrus beldingi*
- □ Western Spadefoot *Spea hammondi*
- Loggerhead Shrike *Lanius ludovicianus* (observed by PSBS in 1989, not mapped)

SENSITIVE PLANTS

- Cc Catalina Mariposa Lily *Calochortus catalinae*
- Cw Intermediate Mariposa Lily *Calochortus weedii ssp. intermedius*

—·—·— Limits of Remedial Grading

- - - - - - Fuel Modification Zone



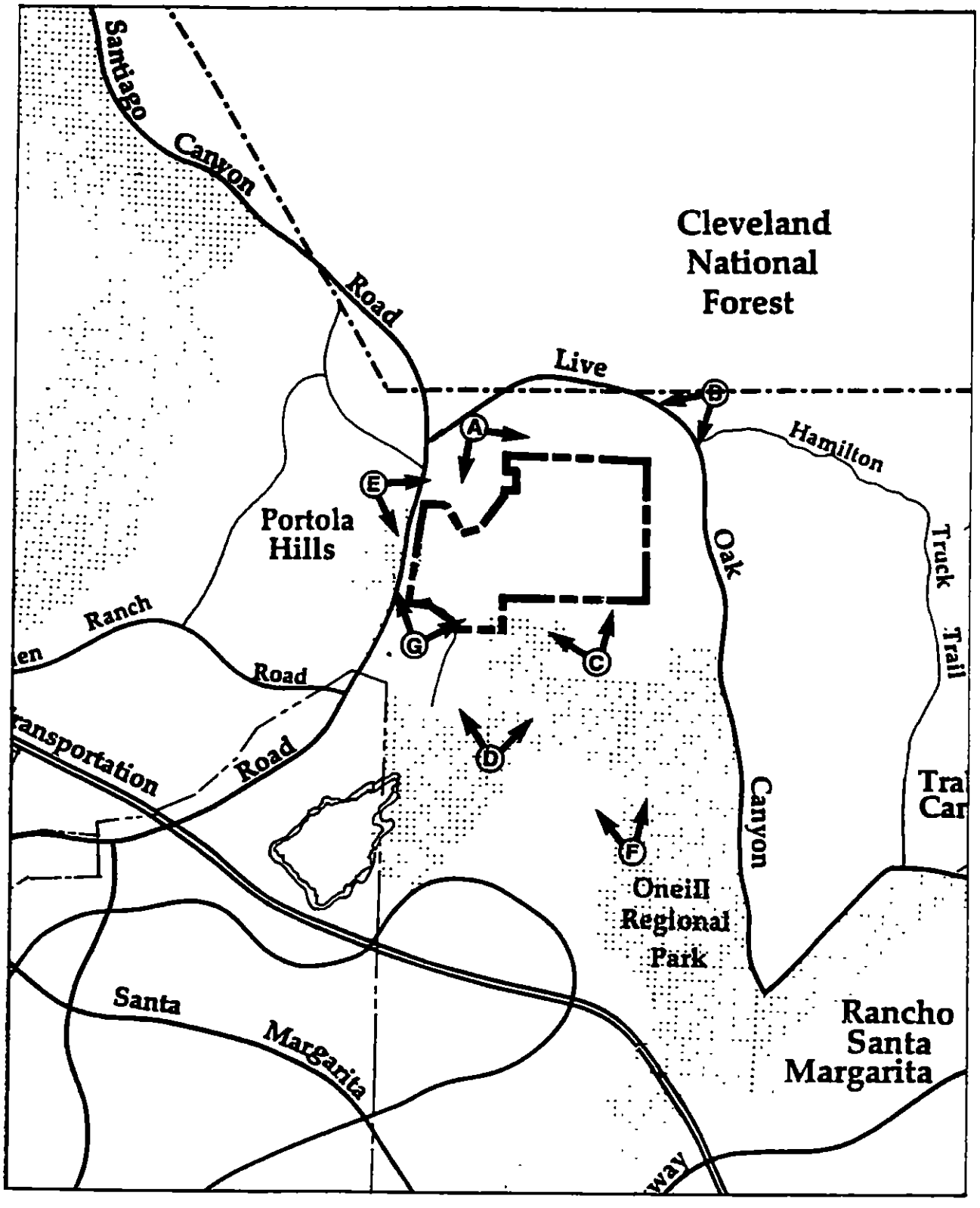
SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION
County of Orange P&DS
Scale: 1"=400'
Source: Sweetwater Environmental Biologists, Inc.

N

Impacted Vegetation Map

EXHIBIT No. 54



SADDLEBACK MEADOWS -
RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

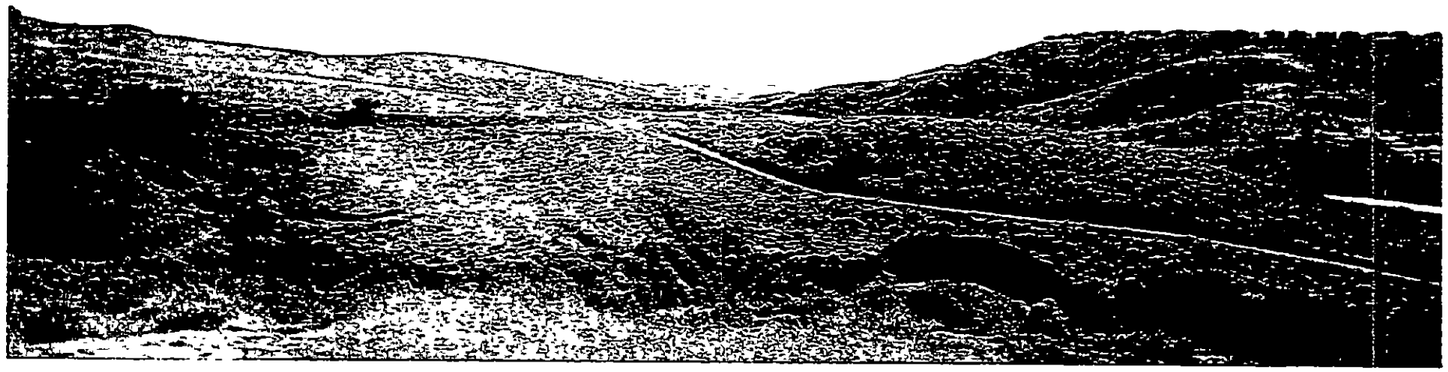
Photograph Location Map

EXHIBIT No. 55

URBAN VISION

County of Orange P&DS
Scale: N/A
Source: USGS

N



Ⓐ VIEW OF THE NORTHWESTERN PORTION OF THE PROJECT SITE FORM ST. MICHAEL' ABBEY, SEVEN STATIONS OF THE CROSS.

Ⓑ LOOKING TOWARDS THE PROJECT SITE FROM THE INTERSECTION OF LIVE OAK CANYON ROAD AND HAMILTON TRUCK TRAIL.

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

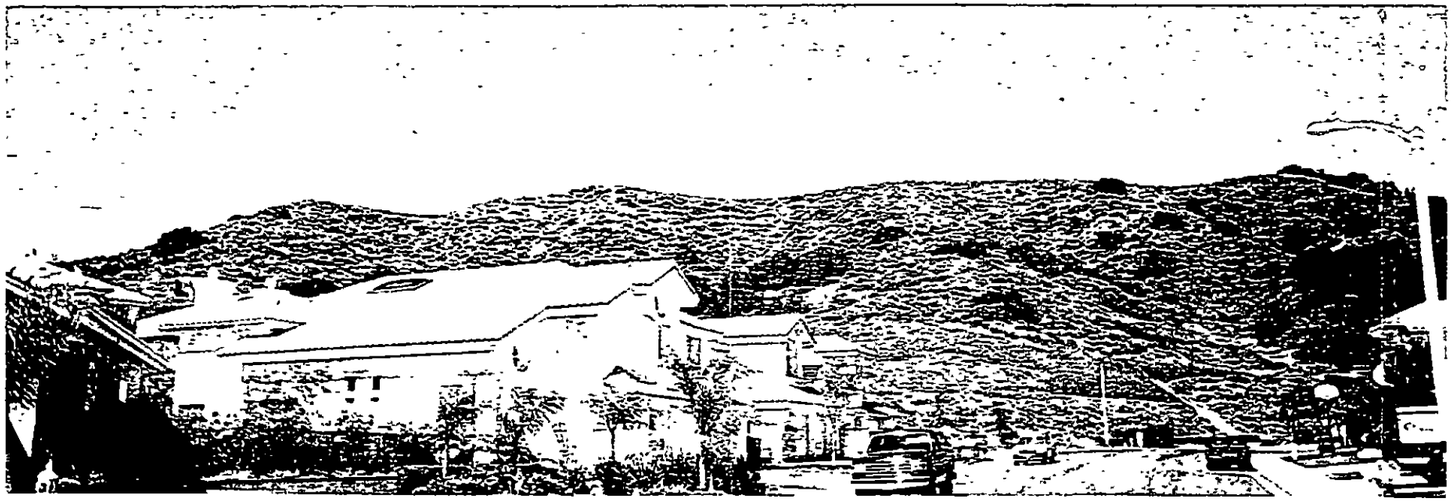
County of Orange P&DS

Scale: Not to Scale
Source: N/A

Existing Views A & B

EXHIBIT No. 56

© VIEW OF THE SOUTHEASTERN PORTION OF THE PROJECT SITE FROM THE RAMAKRISHNA MONASTERY WATER RESERVOIR. THE PORTOLA HILLS AND HIDDEN RIDGE COMMUNITIES ARE SEEN IN THE BACKGROUND.



Ⓓ VIEW OF THE SOUTHWESTERN PORTION OF THE PROJECT SITE FROM THE HIDDEN RIDGE COMMUNITY.

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

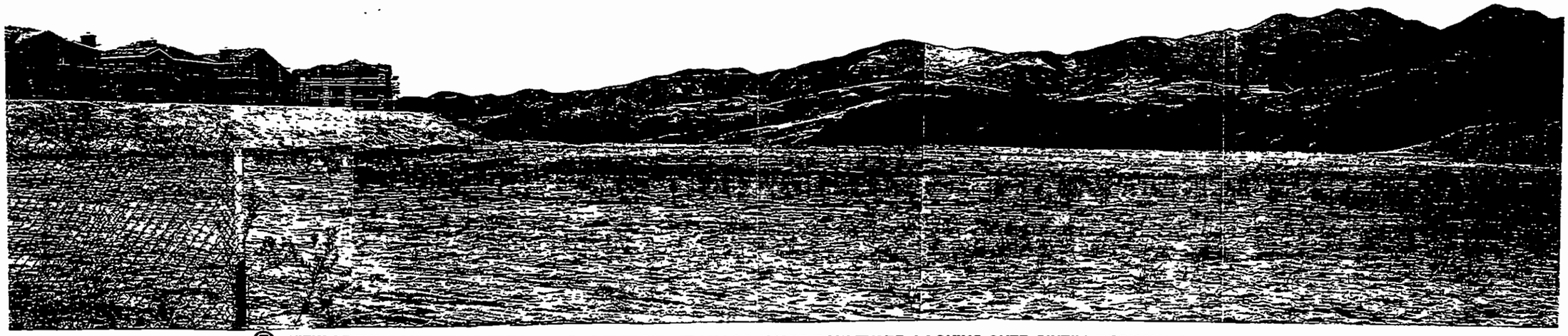
County of Orange P&DS

Scale: Not to Scale
Source: N/A

Existing Views C & D

EXHIBIT No. 57

Ⓔ VIEW OF THE PROJECT, SITE SURROUNDING LAND USES, AND THE SANTA ANA MOUNTAINS FROM THE PORTOLA HILLS PLANNED COMMUNITY.



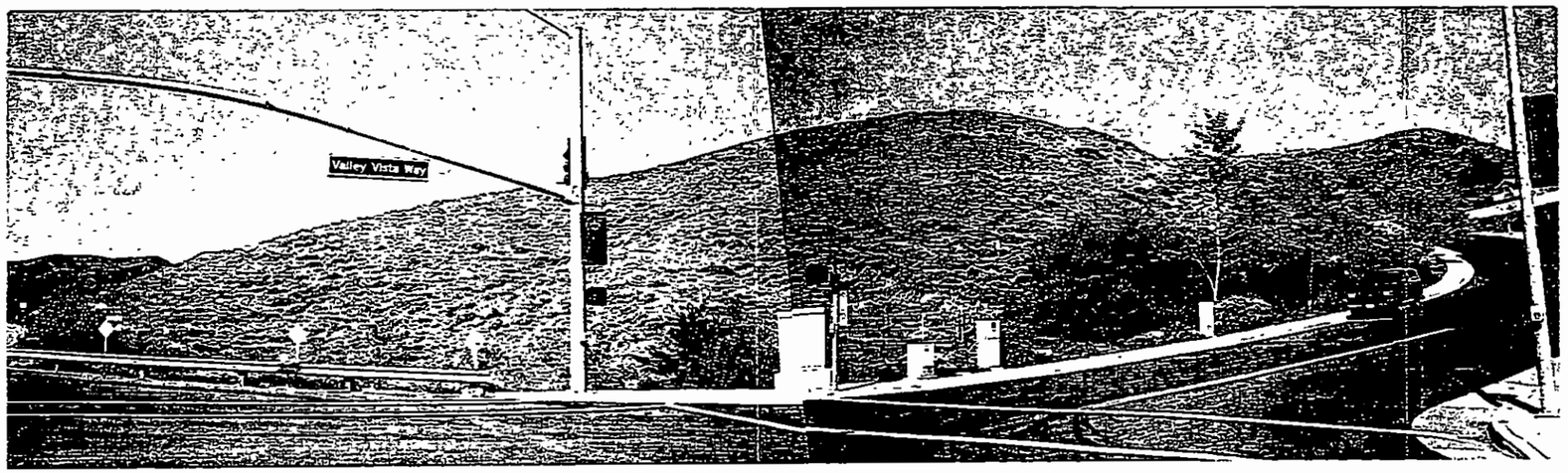
Ⓕ VIEW OF THE SOUTHERN PORTION OF PROJECT SITE FROM LOS ALISOS BOULEVARD, LOOKING OVER O'NEILL REGIONAL PARK.

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION
County of Orange P&DS
Scale: Not to Scale
Source: N/A

Existing Views E & F

EXHIBIT No. 58



VIEW OF THE SOUTHWEST CORNER OF THE PROJECT SITE FROM THE INTERSECTION OF EL TORO ROAD AND VALLEY VISTA WAY.

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

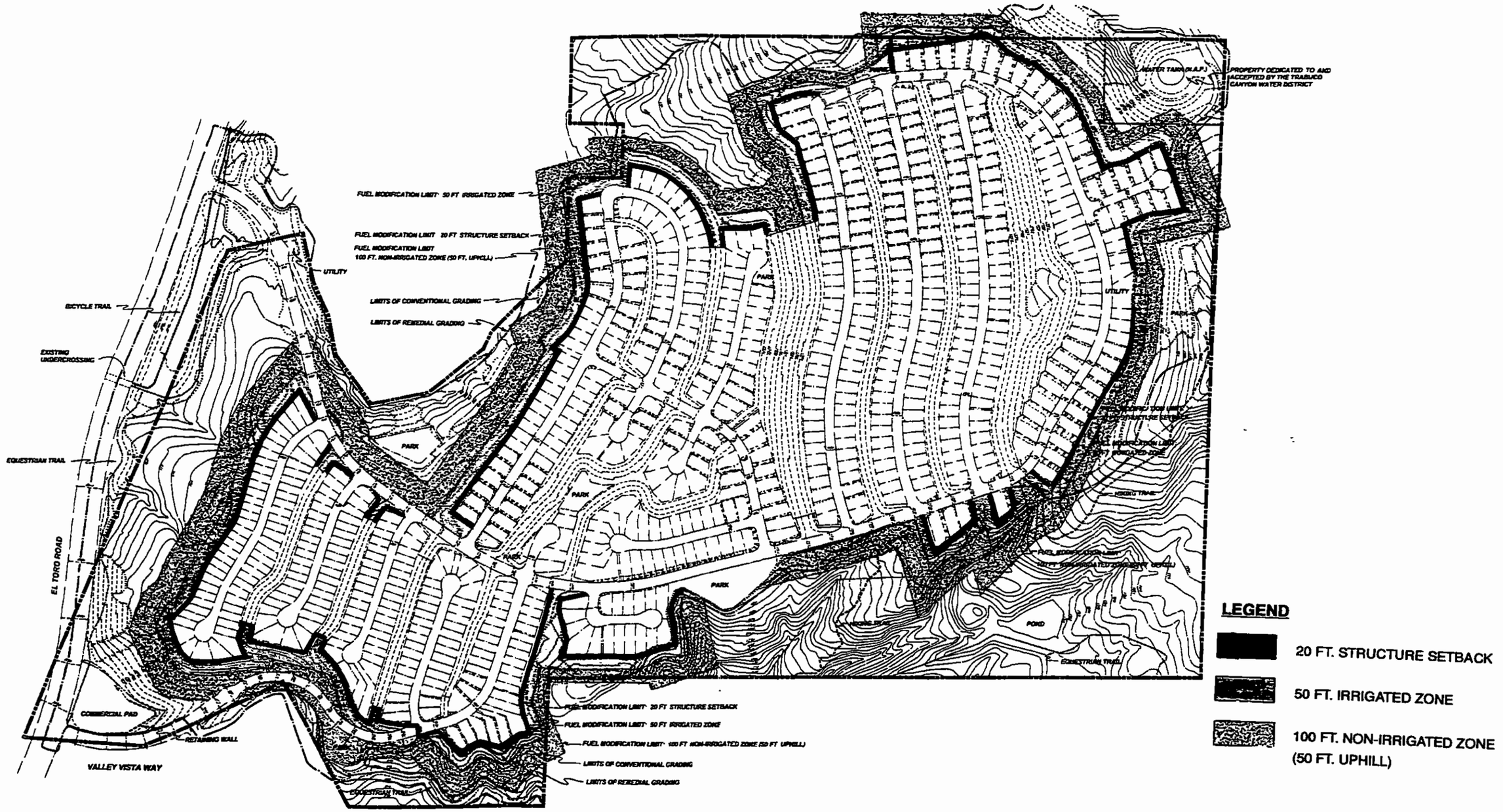
URBAN VISION

County of Orange P&DS

Scale: Not to Scale
Source: N/A

Existing View G

EXHIBIT No. 59



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

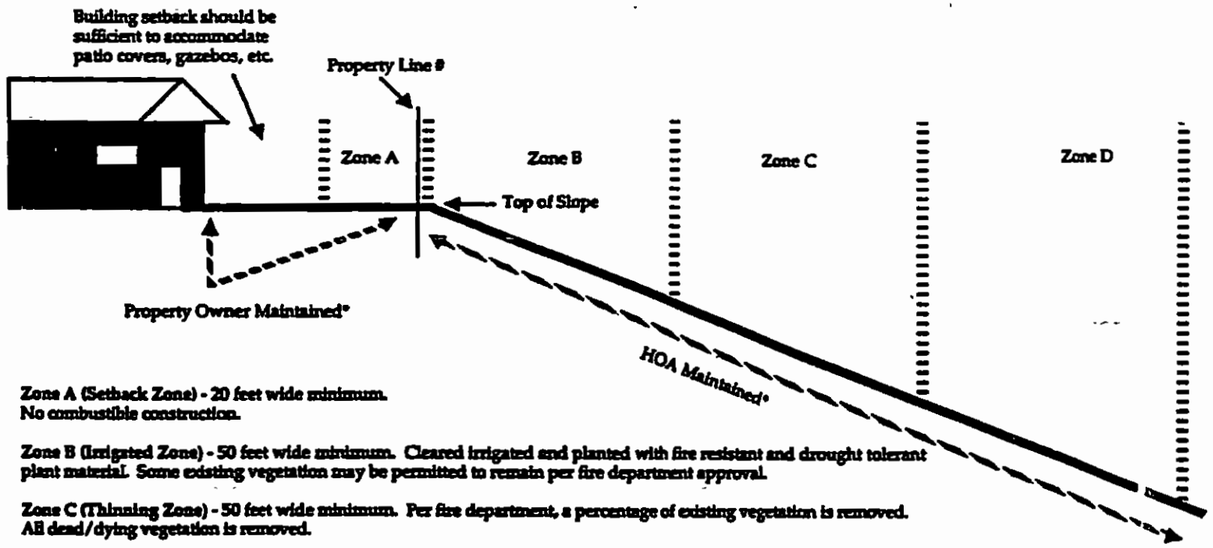
URBAN VISION

County of Orange P&DS
Scale: 1"=400'
Source: Forma

N

Fuel Modification Zone Plan

EXHIBIT No. 64



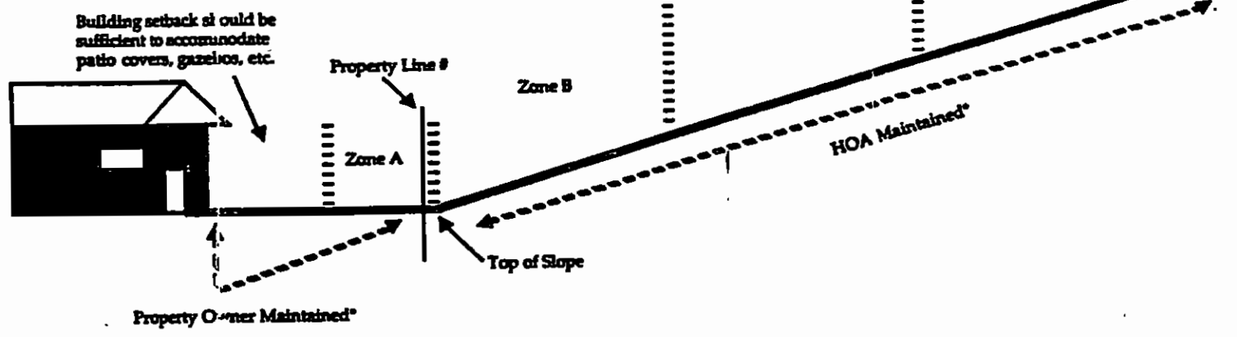
Zone A (Setback Zone) - 20 feet wide minimum.
No combustible construction.

Zone B (Irrigated Zone) - 50 feet wide minimum. Cleared irrigated and planted with fire resistant and drought tolerant plant material. Some existing vegetation may be permitted to remain per fire department approval.

Zone C (Thinning Zone) - 50 feet wide minimum. Per fire department, a percentage of existing vegetation is removed. All dead/dying vegetation is removed.

Zone D (Thinning Zone) - 50 feet wide minimum. Per fire department, a percentage of existing vegetation is removed. All dead/dying vegetation is removed.

DOWNSLOPE CONDITION



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No combustible construction.

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UPSLOPE CONDITION

SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

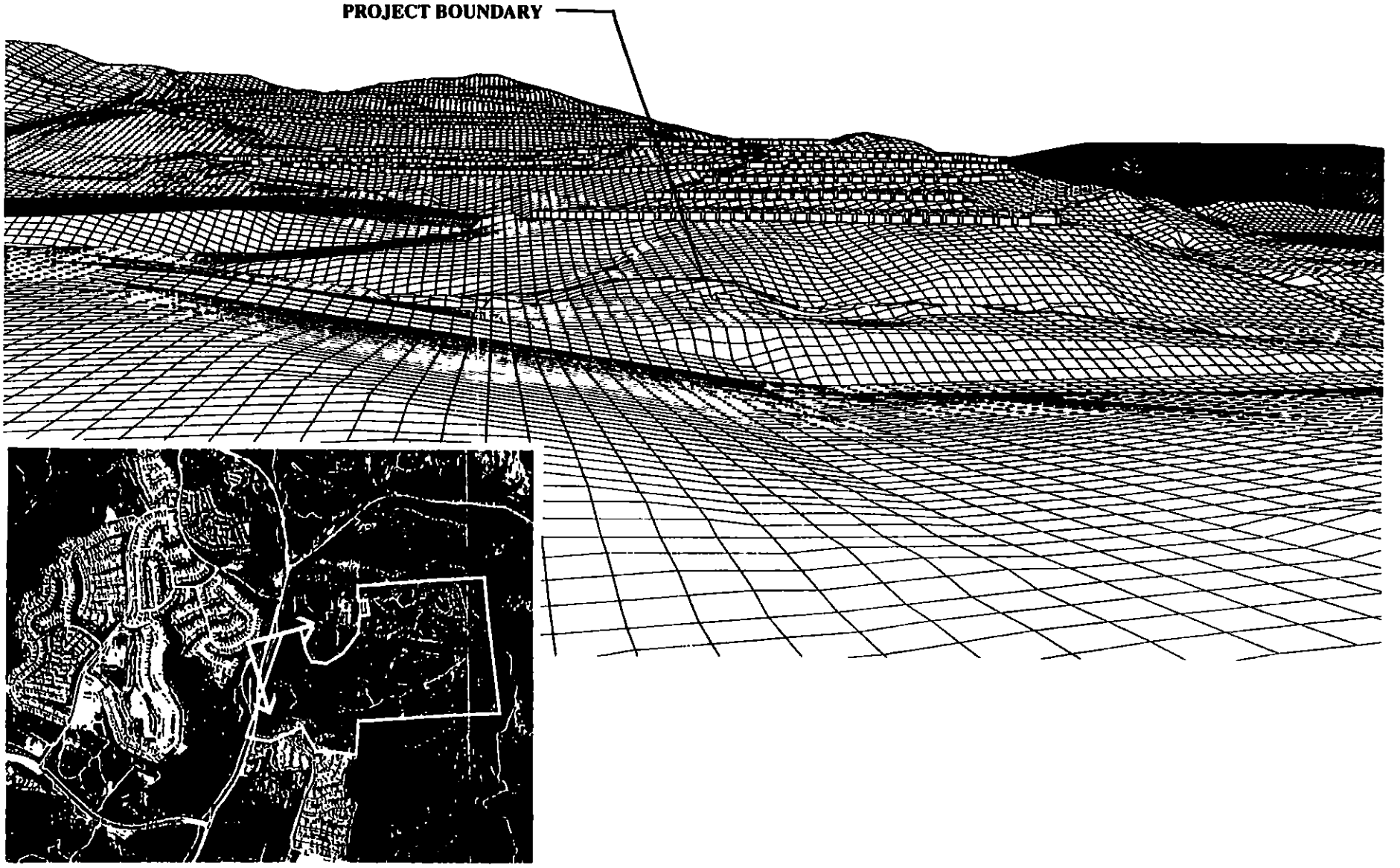
County of Orange P&DS

URBAN VISION

Scale: Not to Scale

Fuel Modification Zone Cross Section

EXHIBIT No. 65



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

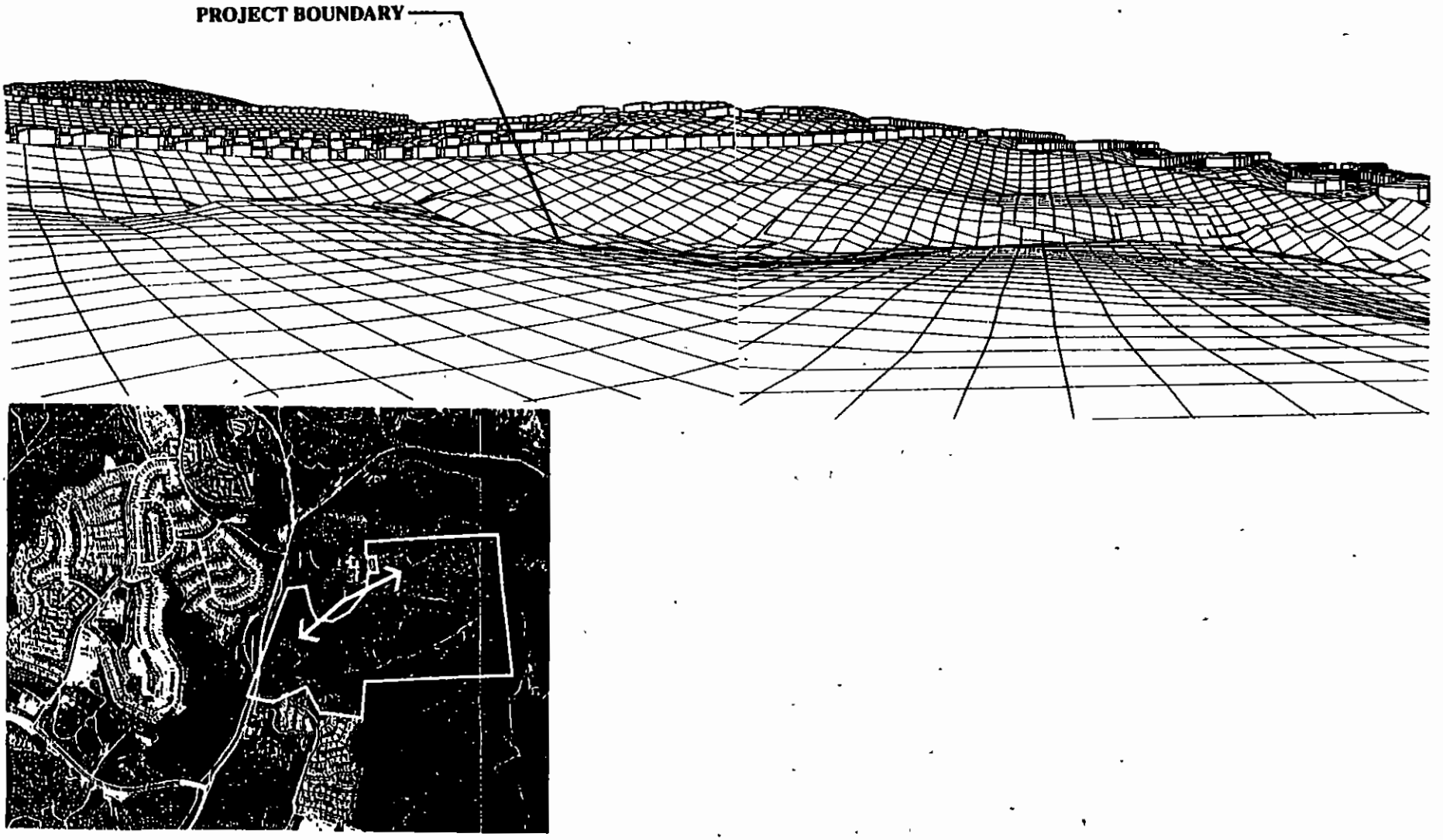
Simulated View from Portola Hills at Elevation 1300'

EXHIBIT No. 60

URBAN VISION

County of Orange P&DS

Scale: Not to Scale
Source: Forma



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Simulated View from Saint Michael's Abbey

EXHIBIT No. 61

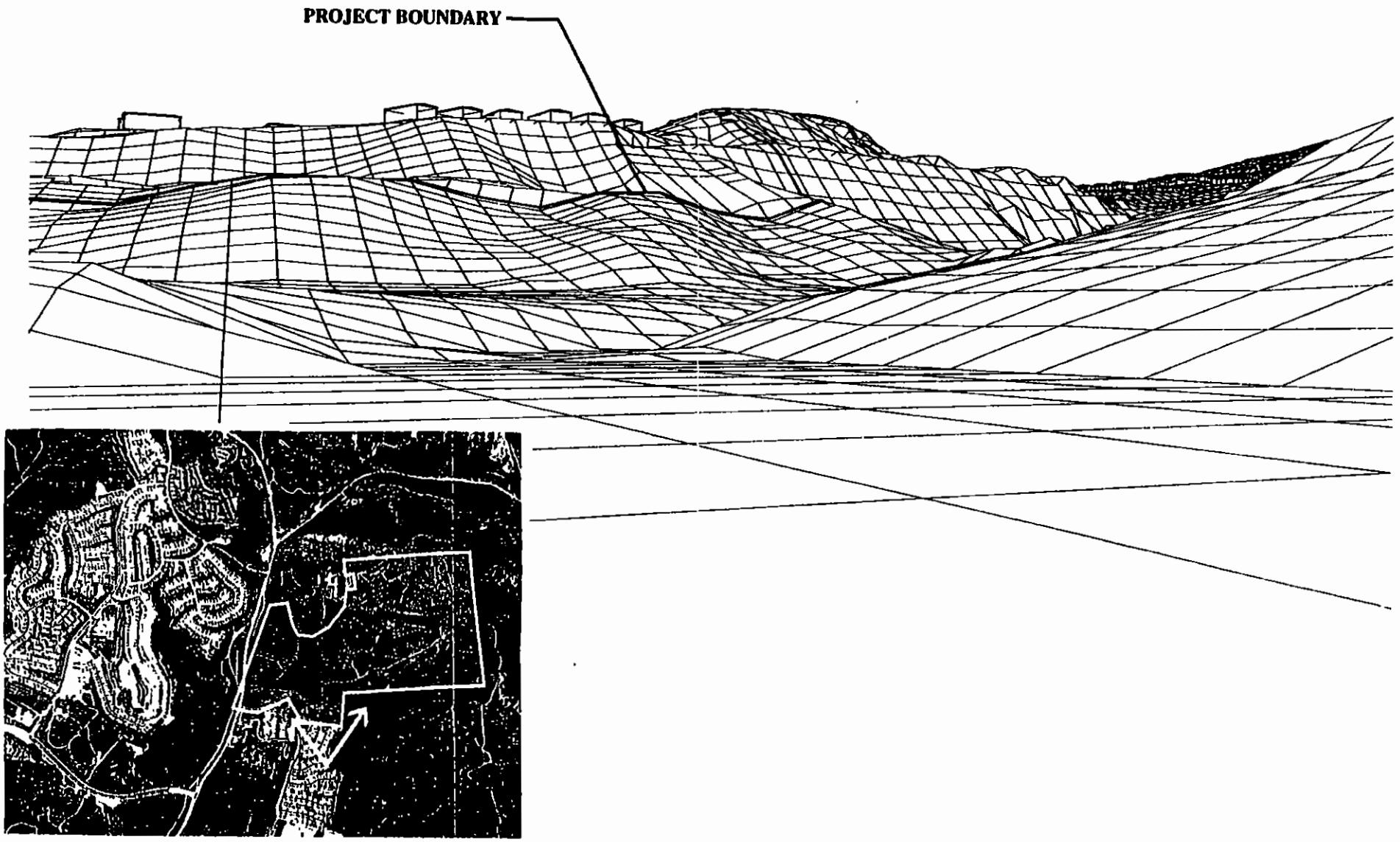
URBAN VISION

County of Orange P&DS

Scale: Not to Scale

Source: Forma

N



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Simulated View from Hidden Hills at Yellowpine Lane

EXHIBIT No. 62

URBAN VISION

County of Orange P&DS

Scale: Not to Scale
Source: Forma

N

Impact Significance Criteria

The determination of whether an aesthetic impact is significant or not is subjective, and there is no universally adopted standard or set of criteria for this issue. The impact significance criteria listed below are based on the CEQA Guidelines, Appendix G, and the Foothill Trabuco Specific Plan Development and Design Guidelines.

The project will have a potentially significant aesthetic impact if it results in one of the following:

- Degradation of, or significant interference with, the public's enjoyment of the site's existing visual resources (from designated public open space or public roads).
- Substantial alteration of the site's natural character, including extensive removal/changes or fill of slopes, canyons, rock outcroppings and/or vegetation.
- Impacts visual resources of "Major Ridgelines/Major Rock Outcroppings" as identified in the Foothill-Trabuco Specific Plan.
- Elimination of a unique geologic or physical landform feature.
- Areas where the elevation change along the length of a graded slope meets or exceeds 100 feet.
- Areas where the depth of cut or fill meets or exceeds 50 feet.
- Elimination or modification of a significant landform feature that is part of a larger, contiguous, unmodified offsite landform feature.

4.8.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to application of mitigation measures, would result in significant impacts to the following surrounding land uses:

- O'Neill Regional Park
- Ramakrishna Monastery
- St. Michael's Abbey

These significant impacts would be related to the following visible project features: 1) grading, including cut and fill slopes; 2) proposed residences 3) drainage improvements; 4) native vegetation removal; and 5) night lighting.

4.8.5 CUMULATIVE IMPACTS

The proposed Saddleback Meadows project would result in the encroachment of large scale residential development into rural and undeveloped areas. The project will contribute to the cumulative impacts to existing rural and natural open space, and to a continuing urbanization of foothill areas in South Orange County.

4.8.6 MITIGATION MEASURES

Project Design Features

PDF 8-1 All public utilities shall be situated underground.

PDF 8-2 Where feasible, drainage devices (terrace drains, benches, and intervening terraces) shall be bermed and placed in swales.

PDF 8-3 Concrete drainage swales and other similar drainage infrastructure shall be tinted with an appropriate earth tone to effectively conceal them from surrounding view.

PDF 8-4 The water tank shall be bermed, landscaped and painted to blend with the surrounding environment.

Standard County Conditions and Mitigation Measures

SC 8-5 Prior to the issuance of any building permits, an agreement shall be entered into and financial security posted guaranteeing landscape improvements and the maintenance thereof based upon a detailed landscape plan showing landscape design and irrigation with a cost estimate for the landscape improvements approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division. Said plan shall take into account previously approved landscape plan(s), PF&RD Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, water

conservation measures contained in Board Resolutions 90-487 (Water Conservation Measures), and 90-1341 (Water Conservation Implementation Plan).

SC 8-6 Prior to the issuance of preliminary grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan(s), PF&RD Standard Plans, area plan 95-7 scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolutions 90-487 (Water Conservation Measures) and 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed and approved by Manager, PDS/Building Permits Services Division, Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division, and Manager, PDS/ Environmental and Projects Planning Services Division.

SC 8-7 Prior to the issuance of certificates of use and occupancy and release of financial security, applicant shall install the approved landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, as applicable, certify that it was installed in accordance with the certified plan. Said certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, shall be furnished in writing to the Manager, Building Inspection Services, prior to the issuance of any certificates of use and occupancy.

SC 8-8 Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the

provisions of existing codes and regulations:

AM 8-9 Prior to issuance of any grading permit, the project proponent shall provide evidence to the Manager, PDS/Subdivision and Grading Services Division indicating that graded areas will be compatible with natural landform characteristics to the greatest extent possible. Criteria to achieve the desired effect shall include:

a) Recontouring the existing landforms to provide a smooth and gradual transition between graded slopes and existing grade while preserving the basic topographic character of the site.

b) Variation and combination of slopes 2:1, 3:1 and 4:1 to create a more natural character wherever possible within the graded areas.

c) Attempting to balance cut and fill within the overall project area to eliminate offsite and import/export related grading operations.

d) Obscuring slope drainage structures with a variety of plant materials.

e) Preservation of visual opportunities from hillsides by providing for panoramic views from selected locations (e.g., view corridors, sensitive landscape placement).

AM 8-10 Manufactured slopes shall be replanted with vegetation native to the site to blend the new topography with existing natural on site vegetation, immediately following precise grading operations.

AM 8-11 Fuel modification areas shall be planted with fire resistant vegetation.

AM 8-12 Use of the California Sycamore or other species similar to trees currently existing onsite shall be used in appropriate common area and street landscape locations where feasible.

AM 8-13 Common area landscaping and habitat transition zones shall utilize the FTSP recommended plant palette (Appendix H) when selecting plant material.

AM 8-14 Slope landscaping shall occur as soon as feasible after grading and be maintained by

the applicant until a homeowners association has been organized and assumes long term maintenance responsibility.

Light and Glare

AM 8-15 Prior to issuance of any certificate of use and/or occupancy, the potentially adverse impact of night lighting on surrounding land use shall be mitigated to the satisfaction of the Manager, PDS/Subdivision and Grading Services Division by the following measures:

a) Street lights shall only be installed at intersections and as required to insure public safety.

b) Low intensity halogen street lamps shall be used.

c) Street lights shall be shielded to direct the light beam downward and to avoid direct glare into open space areas and adjacent property.

4.8.7 UNAVOIDABLE ADVERSE IMPACTS

Construction of 705 manufactured single family residential units on site and water tank just off site, will permanently change the site viewshed from an open space visual amenity to a more typical view of a residential housing tract Partial mitigation of this visual resource loss is provided by the revegetation of slopes with native and screening vegetation and the existing rolling topography which screens the project site from various locations surrounding the property. The mitigation measures listed above will further reduce the potential aesthetic impacts of project development, but will not eliminate the project's significant adverse effects. Substantial views of project construction and site alteration will remain from Saint Michael's Abbey, the Ramakrishna Monastery, O'Neill Regional Park, Portola Hills, Hidden Hills, and El Toro Road.

In addition, night lighting glare will remain a significant adverse impact even after incorporation of recommended mitigation measures. The change from an unlit dark site to an urban night environment is anticipated to be perceived by existing surrounding land use as significant, permanent and unavoidable adverse impact.

4.9 CULTURAL/SCIENTIFIC RESOURCES

A comprehensive cultural/scientific resources investigation has been prepared for the project by RMW Paleo Associates. The technical report is found in Appendix I of this document, with report exhibits on file with OCPDS Services Division.

4.9.1 EXISTING ENVIRONMENTAL SETTING

Archaeology

The project area is inhabited by a Native American group ethnographically known as the Gabrielino. However, the generally accepted boundary with the Juaneno group to the south is Aliso Creek, flowing directly adjacent to the study area along its western margin (Bean and Smith 1978, Kroeber 1925). It is likely that the study area contains traces of both these cultures.

The names the Native American groups applied to themselves are largely unknown; we know them by names the Spanish coined as they moved into Native American territories. The name "Gabrielino" identifies those people who were under the control of the Spanish Mission San Gabriel, while the name "Juaneno" denotes those people who were under the administration of the Spanish at Mission San Juan Capistrano.

The Juaneno and Gabrielino language, as well as that of the Lusieno to the south, was derived from the Takic family, part of the Uto-Aztecan linguistic stock, which can be traced to the Great Basin area (Drive 1969). The timing and extent of the migrations and their impact on indigenous peoples is not well understood and any data related to it represents a valuable contribution to the understanding of local prehistory.

Prehistoric Era: The archaeological heritage of California is quite rich, probably more so than any other North American region north of Mexico. However, the archaeology of California is not well known. The native Californians were generally quite peaceful and did not often offer warlike resistance to European settlement. Consequently, they did not gain great notoriety during the settlement period. Also, the original Californians were first under the control of the Spanish and then the Mexican governments and only later, after much of their culture has been destroyed by disease and displacement, were they subsumed under the United States government. There was only a minor Native American presence remaining in California when it became a United States possession and massive development began. For this reason, very little interest in the natives and their prehistory was initially generated. It was many years later before the size, complexity, and extent of archaeological

deposits in the state became apparent.

Homo Sapiens has been present in the New World since perhaps 10,000 to 11,000 years B.C.E. There is limited evidence that humans were present long before this date, but this is largely inconclusive and has not been accepted by most archaeologists. The earlier sites are all controversial in that they lack definite dateable context and material. Such sites can be interpreted in various ways, particularly in relationship to their age The few generally accepted remains indicate a very small, mobile population apparently dependant on hunting of large game animals as the primary subsistence strategy. Other sources were certainly exploited, but the bulk of the traces remaining today are related to game hunting. (Chartkoff and Chartkoff 1984, Moratto 1984.)

The surviving material culture of this period consists primarily of large, extremely well made projectile points and large but crude tools such as scrapers and choppers. Encampments were never permanent, based in part of the paucity of significant midden areas that would have degraded to undetectability given the great age, and were probably sited near a major kill. Occupation would have persisted only until the resources of that kill were exhausted. Such an economy, using only a small fraction of the available resources, would not have supported a large population; therefore, it is probable that the Paleo-Indians lived in groups no larger than extended families and that contact with other such groups was infrequent.

The Millingstone Horizon (or Encinitas Tradition, as defined by Wallace (1968)) people (ca. 5500-1500 B.C.E.) practiced a mixed hunting and gathering food procurement strategy. Game hunting still played an important role in the economy, but by this time the Native Americans has learned to exploit the hard seed resources of the coastal sage scrub and chaparral ecological communities. The rapid extinction of the large mammals that the Paleo-Indian had previously been exploiting necessitated this shift in resource exploitation. The principal implements used to process the seeds, manos and metates, appear in large numbers for the first time in this horizon, and are especially numerous near the end of this tradition. Other specialized tools were developed to process the increased resources utilized by Millingstone peoples. Settlement size seems to have increased and an annual round of seasonal migrations was likely practiced as movements coincided with ripening vegetal resources. Some formal burials are also evident.

The Intermediate Horizon, locally known as the Campbell Tradition (ca. 1500 B.C.E. to C.E. 1000), is characterized by a shift away from primarily vegetable food exploitation to a more maritime subsistence strategy. It is during this time that the mortar and pestle were introduced, enabling acorn processing to begin.

In the Late Prehistoric Horizon (or Shoshonean Tradition), groups began to center around trade routes and there was a greater utilization of food resources with more land and sea mammal hunting to complement collecting. The pattern of life in this Late Horizon was more complex. More classes of artifacts were being produced and they exhibited a more sophisticated degree of workmanship. The observation that the bow and arrow was now utilized to a greater extent is based on the recovery of a greater number of small, finely chipped projectile points. Other items include steatite containers, shell fishhooks, perforated stones, bone tools, personal ornaments, asphalt adhesive and elaborate mortuary customs. In addition, the population increased and larger villages evolved (Wallace 1955:223). It is during the Late Prehistoric that the emigrants from the Great Basin appeared in the Los Angeles and Orange County area. These peoples were very quick to adopt most of the local traits, because it is difficult to separate the archaeological assemblages of the emigrants from those of the indigenous peoples on the basis of artifact typology alone.

The first permanent settlement in Orange County came when San Juan Capistrano was selected as the site for a Mission in the spring of 1775. Mission San Gabriel, located in Los Angeles County, was established in 1771.

After 1810, mission population declined faster than it could be replenished. The Mexican Revolution, beginning in 1821, overthrew Spanish control and the new Mexican government had a very different outlook on mission activities. Secularization of the missions, planned under the Spanish was greatly accelerated by the Mexican government. Plans to provide land, training and living quarters for the Indians never developed and the mission lands were soon under the control of a relatively few influential Mexican families.

The project area was never a part of a Spanish or Mexican land grant. The foothill area was not good grazing terrain. Instead, the Santa Ana Mountain area was to be ungranted and for the use of all. The Rancho Canada de los Alisos (Canyon of the Sycamores) abuts a portion of the study area to the west (Morgan 1973).

The Mexican war ended on February 2, 1848, with the signing of the treaty of Guadalupe Hidalgo. The treaty established California as a United States possession.

Several archeological field studies of the Saddleback Meadows site have occurred in conjunction with previous projects, first in 1978 (Tadlock and Tadlock), 1982 (Breece and Pardon) and 1989 (Dillon). These studies indicate that the subject property contains a variety of prehistoric and historic archeological sites consisting mainly of ancient seasonal encampments and a historic ranch house and associated buildings circa 1920. The density of archaeological deposits at the subject property was

initially believed to be high due to the discovery of numerous artifacts during earlier site surveys. These previously discovered artifacts consisted primarily of grinding implements and chipped lithic tools which have already been removed and cataloged by earlier researchers. As part of the cultural resource analysis for the current project, the site was reexamined by RMW Paleo Associates in December, 1995, and then again in February and March of 1997. Existing archaeological sites located on the project site are summarized in Table 31.

Table 31
EXISTING ONSITE ARCHEOLOGY SITES

TRINOMIAL	TYPE	COMMENTS	IMPORTANCE/ SIGNIFICANCE
CA-ORA-710	Prehistoric	Ground and chipped stone tools found over 100x50 m area by Dillon.	Important
CA-ORA-711	Prehistoric	Not relocated.	Important
CA-ORA-712	Prehistoric	Not relocated. Possibly destroyed.	Not Important
CA-ORA-713	Prehistoric	Tadlock & Breece - numerous ground and chipped stone artifacts, 100x100 m; Dillon - cupule in concretion.	Not yet determined
CA-ORA-714	Prehistoric	Two artifacts discovered by Dillon.	Not important
CA-ORA-715	Prehistoric	Five artifacts discovered by Dillon. Chipped and groundstone.	Not important
CA-ORA-716	Prehistoric	One artifact discovered by Dillon.	Not important
CA-ORA-1255	Prehistoric	Five artifacts discovered by Dillon. 25x25 m site area.	Not important
CA-ORA-1256	Prehistoric	Two artifacts discovered by Dillon.	Not important
CA-ORA-1257	Prehistoric	Bedrock feature and one mano discovered by Dillon.	Not important
CA-ORA-1435H	Historic	Historic ranch and associated structures	Not yet determined
CA-ORG 1437	Prehistoric	(Maxon 1995) Groundstone, debitage & thermally modified rock.	Not yet determined

It should be noted that two sites, CA-ORG-710 and CA-ORG-711 have been determined to be important and warrant further investigation/ excavation. Evaluation is ongoing and will continue during project construction as monitored by a registered archeologist. If grading operations uncover

additional artifact material, the status of these sites may change and could require further recovery work.

Paleontology

The project site is underlaid by three separate rock units, the Sespe Formation, the undifferentiated Sespe and Vaqueros Formations and the Topanga Formation. The oldest unit in the study area is the late Eocene to early Miocene Sespe Formation deposited when a floodplain covered much of southern California approximately 30 million years ago. The Sespe Formation is found only in the northeast corner of the project site. This geologic unit has produced fossil at numerous locations, most notably in Simi Valley and locally in the Irvine Lake area, however, no fossils were observed in this formation on the subject property.

Overlying and interbedded with the Sespe Formation is the early Miocene age undifferentiated Sespe-Vaqueros Formation (34 to 17 million years ago) indicating a variety of deposition environments along the shifting margins of an ancient sea that once covered this region. Deposits in this unit range from floodplains to deep water off shore sediment. This formation underlies nearly the entire project site except for the northeast corner. Initial site examination has revealed the presence of several distinct fossil horizons of both invertebrate and vertebrates animal groups in this formation.

A small exposure of middle Miocene age Topanga Formation, deposition approximately 15 million years ago is located on the ridge bordering Oso Creek near the southern property boundary. These sandstone deposits which indicate ancient beach deposition, have produced hundreds of vertebrate fossils at several locations within the County, with one of the largest assemblages of middle Miocene age marine vertebrate concentrations found near Upper Oso Dam and also in Mission Viejo. Numerous on site boulders have revealed the fossilized remains of at least two types of whales and a pinniped. The abundance of fossilized remains exposed at these locations indicate that more significant material may be buried on site.

History

A ranch residence and associated out buildings, located near the center of the site within the oak woodlands preservation area, will be directly impacted by the proposed project. These ranch buildings are in an advanced state of decay and have been vandalized to a point where only the roof, chimney and framing of the ranch house remain. Another large out building nearby has collapsed, though a couple of small structures remain standing. Archival research of Orange County records indicates that the structure was not occupied by any person of historical note or by a person who has played

a role in the historic or cultural development of the region

4.9.2 EFFECTS FOUND TO BE INSIGNIFICANT

The following cultural resources effects were found to be less than significant as determined by the Initial Study/Environmental Assessment contained in Appendix C of this EIR. These factors are not evaluated in this EIR.

- The project does not have the potential to cause a physical change which would affect unique cultural values.

Archaeology

Potential project impact on the following archeological sites is considered insignificant based on the currently known density and extent of the artifacts at these locations.

CA-ORA-712: Located on a prominent knob a short distance southeast of CA-ORA-710, this site was originally recorded to contain chipped lithics uncovered by bulldozing. Subsequent examination has revealed no additional material in this area and no significant impact is anticipated.

CA-ORA-714: The site is located on the ridge west of CA-ORA-713 and was originally reported as a probable quarry containing assayed stones. Subsequent inspection has uncovered no definite artifacts at this location. Since bedrock is near the surface at this area of the project site, extensive subsurface deposits are not anticipated and no further action required.

CA-ORA-716: This site is located off the subject property to the west and has been extensively damaged by previous grading. No monitoring or other action is required.

CA-ORA-1255: Previous site investigation recovered a half dozen artifacts at this location near one of the relatively recently man made vernal pools in the northeast portion of the subject property. No artifacts have been recovered during the current study and the site is not considered significant.

CA-ORA-1256: Original investigation of this site recovered two artifacts whose cultural significance is presently in question. No archeological evidence is otherwise indicated for this site and it will be recommended that this site be redesignated from an archeological site to an isolate.

CA-ORA-1257: Located on a spur in the west central portion of the property, the site originally

yielded a few small artifacts that are currently in doubt with regard to their cultural significance. It is anticipated that the site will not yield any significant artifact deposits.

Paleontology

The geologic formations underlying the project site have produced fossil finds at other locations and it is anticipated that this will hold true for the subject property. Grading associated with site development may impact paleontological resources by disturbing and destroying fossils before they can be recovered. This potential impact to scientific resources is potentially significant unless mitigated.

History

Ranch: The remaining portions of the ranch residence and out buildings will be directly impacted by development since they are not located within an area designated for open space. These structures are not considered to be historically or culturally significant and no impact is anticipated.

4.9.3 PROJECT IMPACTS

Archaeology

A number of the known archeological sites on the subject property were initially found to contain a high density of artifact deposits which for the most part have been removed by previous site researchers. Some of these sites may still contain significant deposits below ground. Without mitigation, potentially culturally significant sites may be destroyed by project development. The recommended course of action for these potentially significant sites is to collect the visible surface artifacts, disk the site to determine if there are significant artifact deposits below current grade, and then if warranted excavate up to 12 one meter by one meter excavation units to determine the extent and cultural significance of the site. Depending on the significance of the find, the site can either be preserved in place, artifacts collected and cataloged, or no further action taken if the site proves unimportant.

CA-ORA-710: The site is located on a relatively flat knoll or terrace, directly east of, adjacent to and 40 feet above Aliso Creek in the northwestern portion of the property. Boundaries of the site are approximately 165 x 245 feet.

The original recorders (Tadlock & Tadlock 1978) reported a wide range of artifacts over a rather

large area. Subsequent archaeologists were not able to locate artifacts to that extent. Dillon (SRS 1989) discovered a chalcedony core, a chert flake and a burned piece of C\chert shatter as well as three "truncated" manos, which he apparently collected and removed from the site during his reconnaissance investigation. Truncated manos are discussed by Van Horn and Murray (1984). These manos were recovered at CA-ORA-486, along Aliso Creek, just a short distance away from site CA-ORA-710. The specimens had been "truncated" or broken off at one end and the rough end pounded smooth. They have been associated with the processing of "cacomites": a Spanish term referring to varieties of edible roots, bulbs and corms (bulb-like stems) that are found in the site vicinity.

Work consisted of a surface examination and surface collection. This resulted in the recovery of 26 artifacts including 16 uni- and bifacial manos (one possibly truncated) and mano fragments composed of porphyry, granite and metavolcanics, and chipped stone implements including three choppers, two hammerstones, one core, and four pieces of debitage. Material types here include metavolcanics, quartzite and quartz. subsequently, a disker pulled by a small bulldozer was employed to turn up the soil to a depth of three to five inches, with the purpose of uncovering near surface artifacts. This method, after a second surface collection, resulted in the recovery of an additional 56 artifacts including 11 groundstone implements; eight manos composed of granite (4) and porphyry (4), and three metate fragments - two of granite and one quartzite. chipped stone implements included 12 cores of metavolcanics, chert and quartzite; two hammerstones; two choppers; three scrapers and 25 pieces of debitage made primarily of chert and metavolcanics.

Eight 1 x 1 meter units were next excavated to determine the spatial extent of the site and verify the existence of a subsurface deposit. Fifty-eight artifacts were recovered and two of the units produced in situ features.

The sites inhabitants were utilizing a range of material types to fashion tools: chert (31%), metavolcanics (23%), granite (15%), porphyry (11%), quartzite (9%), metasedimentary (7%) and smaller percentages of jasper, sandstone and quartz. Some of the chert may have been heat treated.

Based on the characteristics of the artifacts recovered during the course of the test excavation, it is likely that the site is of Millingstone age. The lack of evidence of the mortar and pestle being used at the site further bolsters this hypothesis. The mortar and pestle technology is associated with the later Intermediate period when exploitation of the acorn became widespread.

A large portion of the artifacts were recovered from the western portion of the site in Units 1 through 3. Units 1 and 2 produced the three in situ features; therefore, it is established that this portion of the

site's subsurface remains intact.

It is likely that a substantial subsurface deposit remains relatively undisturbed at the site; therefore, the site is deemed important and further data recovery is warranted during ground disturbing activities.

CA-ORA-711: The site is located on a low, flat ridge directly east of Aliso Creek and just north of a smaller tributary drainage. It measures approximately 170 x 170 feet. The original recorders (Tadlock & Tadlock 1978) reported a "sparse distribution of flakes, cores, and one chopper." Dillon (1989) was unable to relocate the site during his reconnaissance.

Work performed consisted of a surface examination and surface collection. This resulted in the recovery of 30 artifacts including 12 uni- and bifacial manos (one or two possibly truncated) of granite, sandstone, metavolcanics and porphyry. Chipped stone implements recovered include two cores, two hammerstones, one uniface, one biface, one scraper plane and 11 pieces of debitage composed of chert, porphyry, metavolcanics and quartzite. Subsequently surface collection during the course of excavation produced 16 additional artifacts including three manos, one metate, four cores, one hammerstone and seven pieces of debitage. Material types included chert, metavolcanics, granite, porphyry and quartzite.

As with CA-ORA-710, excavation at CA-ORA-711 was limited to a small fraction of the total site area. And similarly, a relatively wide range of tool and material types was recovered. This, again, indicates that a number of activities were probably performed on the site. Lithic tool production activities are evidenced by the recovery of 13 cores and a variety of waste flakes and other debitage, as well as associated hammerstones. The recovery of 39 manos and mano fragments and five metates and metate fragments is strong evidence that processing of the hard seed resources associated with the coastal sage scrub and chaparral communities was being accomplished. Scrapers and choppers were being utilized to process vegetable and wood fibers, as well as for working hides and bone.

CA-ORA-712: The site was described by Tadlock and Tadlock (1978) as being on a relatively flat hill overlooking CA-ORA-710 and 711 and Aliso Creek. It was described as a chipped lithic scatter, heavily damaged by bulldozing. Cultural material could not be relocated by subsequent researchers. The site is therefore not important, but the area should be monitored by a qualified archaeologist during mass grading operations.

CA-ORA-713: The site is located on a ridge between Oso and Aliso Creeks and on the ridge's north facing slopes as well as a relatively flat area at the slopes base. The area measures approximately 500

x 700 feet and could comprise two or more sites.

The original recorders of the site (Tadlock and Tadlock 1978) reported finding flakes, scrapers, cores, choppers and manos. Breece and Padon (1982) reported only three flakes. Dillon (SRS 1989) found no "portable artifacts", but discussed a sandstone concretion boulder with a cupulae ground into its upper surface.

Work on the site during the current project consisted of a surface examination and surface collection. This resulted in the recovery of 14 artifacts including two metavolcanic cores, a quartzite flake, a piece of metavolcanic shatter, a granite chopper, eight uni- and bifacial, porphyry and granite manos and a granite basin metate fragment. The cupulae noted by Dillon (SRS 1989) was seen, but the current researchers have serious reservations regarding the cultural nature of the cupulae. Subsequently, a disker pulled by a small bulldozer was employed to turn up the soil to a depth of 3-5 inches to expose near surface artifacts This method resulted in the recovery of an additional 14 artifacts including three scrapers of metavolcanics (2) and granite, two quartzite cores, three pieces of metavolcanic (2) and quartzite debitage and six manos, uni- and bifacilly ground, composed of granite (4) and porphyry.

Since artifacts were scattered over a large area, a number of unrelated encampments occupied over a period of time may be represented. It is therefore recommended that controlled grading under the guidance of a qualified archaeologist be accomplished before the commencement of mass grading. Should clusters of artifacts be discovered, additional units could be excavated in those specific areas.

CA-ORA-714: The site is located on a domed hill on the ridge between Oso and Aliso Creeks, west of CA-ORA-713 and just to the south of a steep cliff leading down to a large Oso tributary drainage. Tadlock and Tadlock (1978) called the site a probably quarry containing assayed stones and Dillon (SRS 1989) only reported two artifacts. The presence of bedrock near and at the site's surface eliminated the possibility of extensive subsurface deposits. Bleached cow bones litter the ridgeline indicating either a carcass dumping ground or a carnivore feeding area. The site measures some 200 x 90 feet.

Work undertaken at this site was essentially surface examination and surface collection. Twelve artifacts were recovered as a result of this procedure including three unmodified hammerstones of metavolcanics (2) and porphyry, two cores of quartz and chert, four choppers of porphyry (3) and metavolcanics and three uni- and bifacial manos of porphyry.

The site was probably a short term encampment, perhaps the result of a single occurrent and because of the presence of exposed bedrock, a subsurface deposit is not expected.

CA-ORA-715: The site is located on a relatively flat, rounded hill comprising the ridge above the headwaters of Oso Creek, overlooking Aliso Creek. The site measures approximately 180 x 210 feet. A bulldozer cut in the site area establishes that soils have considerable depth.

Work on the site consisted of a surface examination and a surface collection. Thirty two artifacts were recovered including 13 uni- and bifacially ground manos, four of them fragments, composed of porphyry (8), sandstone (2), metavolcanics, quartzite and granite, four choppers of quartzite, metavolcanics, porphyry, and quartz, two bidirectional metavolcanic cores, one metavolcanic anvil, one metavolcanic hammerstone and eleven pieces of debitage of metavolcanics (5), chert (4), jasper and quartzite.

Although few artifacts were recovered from the subsurface, the relatively large number of artifacts recovered during the surface collection indicates that prehistoric activity did take place at the site. The presence of groundstone implements suggests the processing of hard seed resources associated with the area's coastal sage scrub and chaparral. Choppers were used to process vegetable and wood fibers, as well as for working hides and bone. Lithic tool production and/or maintenance is evidenced by the recovery of cores, debitage and associated hammerstones. Material types represented at the site included metavolcanics 33%, porphyry 24%, chert 18%, quartzite 13%, and small percentages of sandstone, quartz, jasper and granite.

CA-ORA-716: The site is located on a high hilltop in the northeastern corner of the project area. Tadlock and Tadlock (1978) reported finding a negligible number of flakes on the westerly portion of the site and flakes, cores and a redeposited chopper on the central and eastern portion. Dillon (SRS 1989), then reports finding just one basalt core at the site area and comments that much of the surface of the site has been graded to and below the surface of bedrock.

Relative to the current project, the site, or what is left of it, lies off the property to the west; therefore, no further action is required.

CA-ORA-1255: The site lies on the lower drainage of a small knoll creating an upland pond and overlooking a steep-sided drainage. It is approximately 80 x 80 feet in size. Dillon (SRS 1989) described the site as lying approximately 50 meters southwest of the pond in a natural amphitheater formed by a series of low, rounded knolls. Artifacts recovered by Dillon include one sandstone

metate fragment, one core, two flakes and quartzite prismatic blade.

Previous work on the site consisted of a surface examination and surface collection. One metavolcanic flake was recovered by this method. Subsequently, two .50 x 1 meter units were excavated on the top of the knoll. Unit 1 was excavated to 20 cm, Unit 2 to 30 cm. The lone artifact recovered was a piece of metavolcanic shatter in the 10-20 cm level of Unit 2. The units were very shallow because a very light colored decomposing bedrock sand was encountered at those levels and the units were abandoned.

CA-ORA-1256: The site lies to the south and downslope from the southwest margin of CA-ORA-715, along a brushy fingerline ridge. Site dimensions are approximately 100 x 16 feet. Dillon (SRS 1989) first recorded the site and reported finding a large, crude, "early" appearing scraper plane and an and site core/scraper. Dillon's photographs leave some doubt as to the cultural nature of the objects.

CA-ORA-1257: The site lies to the west and downslope of a low knoll directly west of Aliso Creek, and north of a steep cliff. Dillon (SRS 1989) recorded the site and reported finding a unifacial granite mano and a sandstone bedrock feature containing two cupules or incipient bedrock mortars. He commented that the mano was not truncated like the other three found at CA-ORA-710, but may have been used in conjunction with the bedrock feature for grinding purposes: therefore he called it an incipient bedrock mortar

During a prior visit to the site the small boulder containing the purported cupules was seen, and during the current project it was again located.

CA-ORA-1435H (Hausauer Ranch): The site is located at the bottom of a deep drainage in the center of the property. It is surrounded by dense foliage (oak, eucalyptus and pepper trees). The site is a ranch complex comprised of a residence, barn (collapsed), several out structures, a holding pond and a large olive grove numbering nearly 100 trees. The ranch buildings are in an advanced state of decay and have additionally been vandalized. The site complex measures approximately 900 x 330 feet.

CA-ORA-1437: This newly discovered site lies on a rounded knolltop at the northern edge of the property overlooking a small drainage leading south-westward into Aliso Creek. The site is approximately 450 feet northwest of CA-ORA-1255 and measures ca 60 x 60 feet.

The site was discovered serendipitously as the reconnaissance crew was searching for CA-ORA-1255. Work performed on the site included a surface examination and the subsequent recording of all identified artifacts. Twenty-nine items were identified including mano fragments, metate fragments, cores and flakes. The items were not collected, precluding the possibility of further study (material types, measurements, weights) of the artifacts. Finally, an archaeological site record was prepared for the site.

Paleontology

The rock units underlying the project site have a history of fossil production dating from the 1930's and represent a significant scientific resource. The most abundant concentration of fossils appear to be located in the Topanga and undifferentiated Sespe Vaqueros Formations. Initial project site investigation has uncovered numerous fossil concentrations at various locations within the Sespe-Vaqueros Formation on the subject property. The Topanga Formation has yielded numerous occurrences of vertebrate fossils in boulders which have apparently eroded from higher elevation. One of these boulders contains a portion of a baleen whale skull and another contains what appears to be the skeleton of a large toothed whale. Based on the abundance of observed fossils currently exposed on site, it is anticipated that project grading and construction will unearth additional fossil concentrations which may be destroyed without adequate precaution to document, recover and preserve what is found.

History

The ranch house and out buildings are located in an area that will be directly impacted by the proposed project.

Impact Significance Criteria

If the project may cause damage to an important archaeological resource, the project may have a significant effect on the environment. For the purposes of CEQA, an "important archaeological resource" is one that:

- Is associated with an event or person of: 1) recognized significance in California or American History, or 2) recognized scientific importance in history.

- Can provide information which is both of demonstratable public interest and useful in

addressing scientifically consequential and reasonable or archaeological research questions.

- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.

- Is at least 100 years old and possesses substantial stratigraphic integrity.

- Involves important research questions that historical research has shown can be answered only with archaeological methods.

4.9.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Archaeology

The project may have a significant impact on the following archaeological sites: CA-ORA-710, CA-ORA-713, CA-ORA-715 and CA-ORA-1435H unless adequate safeguards are taken to document and recover any artifacts found at these locations. All other archeological sites have been deemed not important/ significant.

Paleontology

Disturbance of potential paleontological resources may occur with project development without adequate mitigation.

History

Project implementation will directly impact CA-ORA-1435H, which may be considered significant.

4.9.5 CUMULATIVE IMPACTS

Archaeology

Cultural archeological resources are non-renewable in character. Once disturbed or destroyed, they can never be recovered. Cumulative impact to archeological and culture resources stems from their irreplaceable loss due to site development. The recommended mitigation measures will reduce the potential impact of site development, particularly to the known archeological sites on the subject

property. Complete mitigation of the potential effects of site development on cultural resources is not fully possible however, because other archeological sites often remain hidden until project grading activities uncover them.

Paleontology

Fossils recovered at other locations from the rock formations underlying the project site have contributed to the understanding of the regions geologic and evolutionary history. Fossils are unique and irreplaceable scientific resources which can be lost forever unless adequate mitigation measures are taken to ensure their recovery and preservation.

Historical

No significant impact is anticipated.

4.9.6 MITIGATION MEASURES

Standard County Conditions and Mitigation Measures

Archaeology

SC 9-1 Prior to the issuance of any grading permit, a County-certified archaeologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified archaeologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PF&R/Harbors Beaches and Parks Division. A report of the literature and records search and the field survey shall be submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division. Mitigation measures may be required depending upon the recommendations of this report. This mitigation measure has been completed as part of the Draft EIR.

SC 9-2 Prior to issuance of any grading permit, a county-certified archaeologist shall be retained by the applicant to perform a subsurface test level investigation and surface collection as appropriate. The test level report evaluating the site shall include discussion of significance (depth, nature, conditions and extent of the resources), final

mitigation recommendations and cost estimates and shall be approved by the Manager, PF&R/Harbors Beaches and Parks Division. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis.

SC 9-3 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained to conduct pregrade salvage excavation of the archaeological resources in the permit area. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. A final report of the salvage operation shall submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division, prior to any grading.

SC 9-4 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained, shall be present at the pregrading conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project developer, for exploration and/or salvage. The archaeologist shall submit a follow-up report to the Manager, PF&R/Harbors Beaches and Parks Division, which shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, PF&R/Harbors Beaches and Parks Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations in a manner acceptable to the Manager, PF&R/Harbors Beaches and Parks Division Facilities.

AM 9-5 Prior to site grading the project site shall be examined by a qualified archeologist, all potential archeological sites identified, and surface collection and documentation of

artifacts be conducted.

AM 9-6 As indicated by the project archeologist, sites warranting further study shall be disced to ascertain the extent and significance of the deposit. If the project archeologist determines that a site is potentially of cultural worth, then additional excavation in a manner determined by the project archeologist shall occur prior to further grading or construction activities at these locations.

AM 9-7 During initial grading, the project site shall be monitored by a qualified archeologist who shall have the authority to order a temporary cessation of grading activities and take appropriate action to preserve any culturally significant materials if uncovered.

AM 9-8 If human remains of Native American origin are encountered during the project the County Coroner's Office and the Native American Heritage Commission shall be contacted for preservation and protection of the remains.

Paleontology

SC 9-9 Prior to the issuance of any grading permit, a County-certified paleontologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys In addition, a field survey shall be conducted by a County-certified paleontologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PF&R/Harbors Beaches and Parks Division. A report of the literature and records search and field survey shall be submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division, Future mitigation shall depend upon the recommendations of the report. This mitigation measure has been completed.

SC 9-10 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained by the applicant to conduct pregrade salvage and prepare a catalogue of the exposed resources. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PF&R/Harbors Beaches and Parks Division, for review and approval, which shall include methodology, an analysis of artifacts found, a catalogue of artifacts, and their

present repository. This mitigation measure has been completed

SC 9-11 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pregrading conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If major paleontological resources are discovered, the paleontologist shall determine appropriate actions, in cooperation with the project developer, which ensure proper exploration and/or salvage. Excavated finds shall be offered to the County of Orange, or its designee, on a first-refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PF&R/Harbors Beaches and Parks Division, which shall include the period of inspection, a catalogue and analysis of the fossils found, and present repository of the fossils. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the Manager, PF&R/Harbors Beaches and Parks Division.

Additional Mitigation Measures

AM 9-12 A qualified paleontologist shall be retained to perform periodic inspections of excavations and, if necessary, salvage exposed fossils. The frequency of inspections will depend on the rate of excavation, the materials being excavated, and the abundance of fossils. Initially, monitoring shall be on a full time basis in all excavations because of the high potential for the discovery of fossils in all the rock units present in the study area.

AM 9-13 The paleontologist shall be allowed to divert or direct grading in the area of an exposed fossil to facilitate evaluation and if necessary, salvage.

AM 9-14 To recover small fossils, it will be necessary to collect sediment samples from promising horizons discovered during grading monitoring for processing through fine mesh screens. Once the samples have been screened, they will be examined microscopically for small fossils.

AM 9-15 Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository.

AM 9-16 All fossils collected should be donated the County of Orange's designated repository.

AM 9-17 A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project.

Historical Resources

SC 9-18 Prior to issuance of a grading permit, project applicant shall provide written evidence to Manager, PF&R/Harbors Beaches and Parks Division that an historian has been retained by the applicant to implement final mitigation measures. A final report shall be submitted to and approved by the Manager, PF&R/Harbors Beaches & Parks Division prior to any alteration of the historical site area.

SC 9-19 Development adjacent to a place, structure, or object of historic significance shall be designed so that permitted uses and architectural design will protect the visual setting of the historic site. Such design shall be submitted to and approved by the Manager, PF&R/Harbors Beaches & Parks Division prior to any alteration of the historical site area.

4.9.7 UNAVOIDABLE ADVERSE IMPACTS

Archaeology

No significant adverse impact to archeological or cultural resources is anticipated with the proposed project with the incorporation of the recommended mitigation measures.

Paleontology

No significant adverse impact to paleontological resources is anticipated with the proposed project with the incorporation of the recommended mitigation measures.

History

No significant impact is anticipated.

4.10 RECREATION

4.10.1 EXISTING ENVIRONMENTAL SETTING

The project site has access to a number of regional recreational facilities located in the immediate vicinity. Most notable is O'Neill Regional Park located directly south and adjacent to the subject property Whiting Ranch Wilderness Park is located approximately one mile to the west and the Cleveland National Forest southern boundary is located approximately ½ mile north of the project site. In addition, the project will have access to the Orange County Regional Riding and Hiking Trail System, with an on site connection provided to the Live Oak Canyon Trail (#21) and the Aliso Creek Regional Riding and Hiking Trail (#19), which parallels El Toro Road adjacent to the west project boundary.

O'Neill Regional Park

Encompassing over 2,000 acres of canyon bottom, shrub covered hills and oak and sycamore woodlands, O'Neill Regional Park is the closest recreational facility serving the subject property. The park is known for its native oak and sycamore trees and accompanying woodland habitat and has provided area residents and visitors with camping, day use picnic areas, playground facilities, and riding and hiking trails since its establishment in 1948. Classified as a Natural Regional Park in the Orange County General Plan Recreation Element, the park's primary purpose is to provide an area of limited physical improvement for the public's enjoyment of passive recreational activities, and the aesthetic beauty of the natural environment. The portion of O'Neill Regional Park adjacent to the project site is devoted to wilderness activities, including hiking. The Live Oak Trail is located in this part of the park, approximately 1,000 feet south of the project site.

Whiting Ranch Wilderness Park

Whiting Ranch Wilderness Park is located approximately one mile to the west and is separated from the subject property by the intervening Portola Hills development. As a designated regional wilderness park in the County's General Plan Recreation Element, the 1,557 acre Whiting Ranch Wilderness Park is intended to preserve the natural environment in a primitive unaltered state, conserving the parks natural resources for the future scientific benefit and enjoyment of area

residents. Primary activities include hiking, mountain bicycling, and horseback riding.

Cleveland National Forest

The Cleveland National Forest, encompassing over 450,000 acres, and extending from Orange County south to near the Mexican border, is located north of the project site. Land within the Cleveland National Forest is governed by the U.S. Forest Service who are responsible for the administration of the forest's adopted Land and Resource Management Plan. Plan goals are to provide and maintain biological variety, manage wildlife habitats to maintain viable populations of all existing native vertebrate species, and assure aesthetic values. Recreational opportunities are primarily focused on hiking.

Regional Bikeways

The proposed project abuts the Aliso Creek Bikeway, a regional Class I bikeway that begins in Aliso-Wood Canyons Regional Park and continues northerly along Aliso Creek. The bikeway enters the project vicinity from the west at the existing El Toro Road trail/bikeway underscrossing, and continues northerly, east of El Toro Road, just outside the project boundary (see Exhibits 7 and 63). The bikeway will need to remain open during construction of the subject project. If an interim route is needed, PF&RD, Harbors, Beaches and Parks must review the reroute plan before it is implemented.

Regional Riding and Hiking Trails

The proposed project includes a portion of the Live Oak Canyon Trail and a portion of the Aliso Creek Trail. Both of these are regional riding and hiking trails (see Exhibits 7 and 63). Riding and hiking trails are intended for use by equestrians, bicyclists, and pedestrians (walking, hiking, and jogging).

The Aliso Creek Trail begins in Aliso-Wood Canyons Regional Park and generally follows the same route as the Aliso Creek Bikeway, continuing northerly, east of El Toro Road, within the project boundary.

The Live Oak Canyon Trail traverses the southwestern section of the project site. Live Oak Canyon Trail is an existing and popular regional trail.

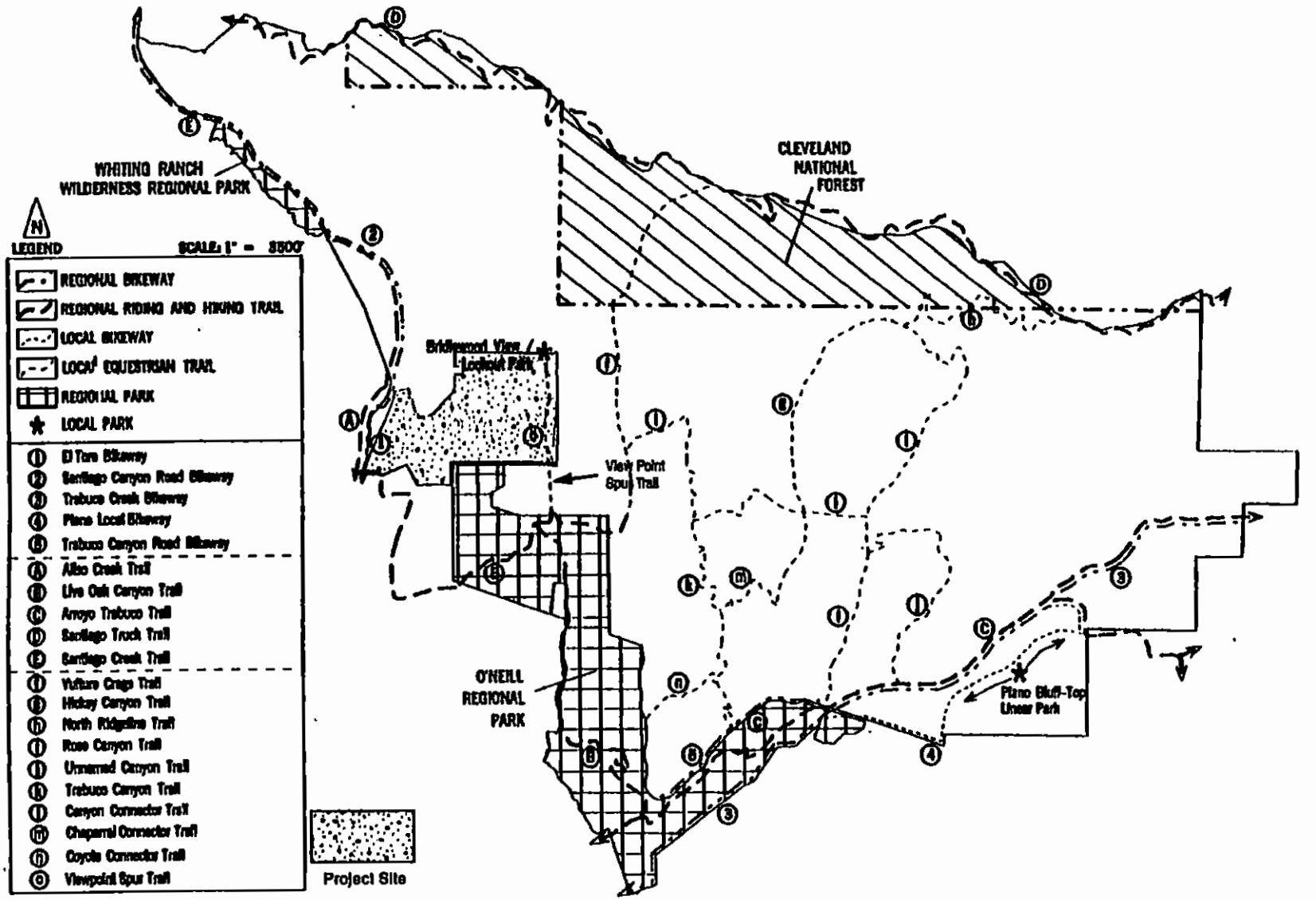
The proposed project will be providing access to the Orange County Regional Riding and Hiking Trail System, which currently includes 348 miles of existing and proposed trails throughout the region Regional hiking and riding trails are intended for use by equestrian, pedestrian (walking, hiking, and jogging), and bicycling depending on the trail surface and its designated use. The project will have access to two components of this trail system, the Aliso Creek Regional Ridding and Hiking Trail (#19) and the Live Oak Canyon Trail (#2). Existing and proposed trails are shown in Exhibit 63.

The Aliso Creek Trail commences east of Laguna Beach and proceeds northeast parallel to El Toro Road adjacent to the subject property. The trail continues past the project site to one mile north of Cook's Corner, where it becomes the Santiago Creek Regional Trail. The Class I El Toro Road Bikeway is adjacent to this trail. The existing onsite trail, which traverses the project site/St. Michael's Abbey boundary is a transferable easement and can be utilized to connect onsite open space areas to the Aliso Creek Trail.

The Live Oak Canyon Trail commences inside the main entrance to O'Neill Regional park west of the Arroyo Trabuco Trail. The trail travels in a northwest direction along a paved park road until it breaks off in a northeast direction along a dirt path. The trail continues heading north to a park summit-vista. On the downward slope, the trail continues northerly to just south of the Ramakrishna Monastery, there it turns westward and extends up the ridgeline through Hidden Ranch (residential tract south of the subject property) until it meets El Toro Raod. At El Toro Road, the trail then travels north adjacent to the western project site boundary until it reaches the Aliso Creek Trail underpass, about ½ mile downstream from Cook's's Corner.

4.10.2 EFFECTS FOUND TO BE INSIGNIFICANT

Potential impact to regional recreational facilities generated by the proposed project are not anticipated to be significant. Adverse impact to recreational facilities in general, and passive parks and wilderness areas in particular, stems primarily from over use by the public. Over use generates a host of problems including habitat disruption (animals avoiding the area due to high human presence), habitat destruction (due to trampling, fire, vandalism), air quality impacts, noise impacts, and loss of solitude. Population generation estimates contained in the County's Recreation Element indicate that the proposed project may increase the number of area residents by approximately 2.57 persons per household or 1,812 persons for the entire project. This population increase will only generate an incidental increase in the use of nearby regional recreation facilities and no significant negative impact is anticipated.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

Foothill-Trabuco Specific Plan Land Use Designation

EXHIBIT No. 63

URBAN VISION

County of Orange P&DS
Scale: 1"=3500'
Source: Foothill/Trabuco Specific Plan

Exhibit 63
Regional Parks and Trails

4.10.3 PROJECT IMPACTS

A primary goal in the County's Recreation Element is to provide adequate local park sites to meet the recreation needs of existing and future residents and preserve the natural resources within unincorporated Orange County. To comply with this goal the County acquires park land by requiring residential developers to provide a minimum of 2.5 net useable acres for every prospective 1,000 residents. Based on the projected population, local park requirements would total approximately 4.0 acres.[12]

The project is proposing the construction of eight (8) private local park facilities. The nearest facility containing playground equipment is the Portola Hills Elementary School located approximately 3/4 of a mile west of the site. Playground equipment is also found near the entrance to O'Neill Park located over two miles southeast of the subject property.

Mitigation of project-related local park impacts may be provided by the payment of local park fees as required by the Orange County Department of Harbors, Beaches and Parks. County regulations permit the payment of fees in lieu of actual on site park construction, allowing for the construction and maintenance of local parks at other more appropriate locations.

Although the current project is not proposing to improve the view park site and connecting trail, the project is proposing the construction of other regional recreational facilities which may mitigate this omission. As previously indicated, the applicant will be providing on site relocation and connection to the Aliso Creek Regional Riding and Hiking Trail. Provision of these recreational trail improvements in conjunction with required park fees, will provide mitigation for the lack of onsite park facilities.

Impact Significance Criteria

The effects of a project on recreation are considered to be significant if the project will result in the following:

- The demand generated by the project meets or exceeds the capacity of existing park lands, bicycle trails and hiking trails, or otherwise requires their expansion or requires the construction of major new facilities.

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[12] *Memo, Chief, EMA/HBP PF&R/Harbors Beaches & Parks Division, Planning and Acquisition - 11/13/95.*

- The project will cause permanent removal or relocation of existing recreational trails, parks or other facilities in the area.

- The project would be in conflict with existing or planned recreational uses in the project area of effect.

4.10.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Implementation of the proposed project, prior to mitigation, would result in significant impacts to existing local public park demand. This impact however will be reduced by the provision of eight (8) private park sites.

4.10.5 CUMULATIVE IMPACTS

The proposed project will increase area population by approximately 1,812 persons which will contribute to the cumulative impact on local and regional recreational facilities. This potential impact is considered incidental given the overall increase of recreational facilities to be provided by other regional development and is not considered significant.

4.10.6 MITIGATION MEASURES

Project Design Features

PDF 10-1 The Live Oak and Aliso Creek riding and hiking trail shall be located on the Project Site as shown in Exhibit 7 and Exhibit 63 Site Plan.

PDF 10-2 Live Oak Canyon Trail shall be constructed onsite, ultimately connecting O'Neil Regional Park to the Aliso Creek riding and hiking trail, as shown in Exhibit 7, Site Plan.

PDF 10-3 Eight onsite private parks shall be constructed as shown on Exhibit 7 Site Plan, to offset project demand.

Standard County Conditions and Mitigation Measures

SC 10-4 The developer or his assigns and successors in interest shall maintain offered park

site(s) until such time as the County or its designer accepts the offer of dedication, all in a manner of meeting the approval of the Manager, PF&R/Harbors Beaches & Parks Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations:

AM 10-5 Prior to first building occupancy, the applicant shall pay all park mitigation as required by the Department Manager, PF&R/Harbors Beaches & Parks Division.

AM 10-6 Prior to final building occupancy the applicant shall dedicate and construct all required regional trail connections and improvements as approved and required by the Department Manager, PF&R/Harbors Beaches & Parks Division.

4.10.7 UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts to recreation are anticipated with the proposed project with the incorporation of the recommended mitigation measures.

4.11 HAZARDS

4.11.1 EXISTING ENVIRONMENTAL SETTING

Wildfire

A number of natural hazards are inherent in the area of interface between the man made and natural environment which may potentially effect the proposed project Among these are increased risk from wildfire both to the built and natural environments. Wildfire is a naturally reoccurring part of the ecosystem, periodically burning off old dead growth to allow for a rejuvenation of fresh growth in the recently burned area. A significant threat to life and property is a distinct possibility when development encroaches into this environment. The project site and surrounding topography consist of moderate to steep grass and shrub covered hills interspace with steep sided canyons, typically with riparian habitat along the canyon floor and/or oak woodlands in areas containing sufficient water to support their growth. The project site is located within an area classified by the Orange County Fire

Authority as a high "Special Fire Protection" area due to its combination of natural combustible vegetation, topography, and weather conditions (frequent dry Santa Ana winds), in accordance with California Department of Forestry and Fire Protection (CDF) criteria and State Responsibility Area (SRA) high fire hazard map. The project site is also in the "Special Fire Protection Area" severity zone, as designated by the County of Orange.

Wildlife Interaction

Another possible project related hazard is from the potential increase of contact between wildlife and project residents and their pets. The surrounding wilderness areas are known to contain a high diversity of wildlife including both large and small mammals, birds and insect populations. Of particular concern is the potential conflict between the human environment and the two main top predators of the region, coyotes and mountain lions. Though contact between humans and mountain lions still remain rare, they have occurred previously in this region and the chance for conflict will only increase with more people moving into the area. Contact between project residents and coyotes is a very real possibility since coyotes are typically more numerous in the wild than mountain lions and coyotes are more adaptable to human presence.

Manmade Hazards

In addition to natural hazards, man made hazards also have the potential to effect a development project. With regard to the project site, only two potential man made hazards have been identified. The first is the risk of aircraft accident due to the proximity of the site to the El Toro Marine Corps Air Station (MCAS). The second is due to the remote possibility of flood damage in the event that the proposed water tank, which will be located on the ridgetop northeast of the project site, fails due to earthquake or other structural damage.

No toxic or hazardous materials, or potential sources, have been identified onsite or in the vicinity of the proposed project.

Electromagnetic Fields (EMF)

No high voltage power transmission lines are located in the vicinity of the proposed project, and existing EMF hazards are considered to be low.

4.11.2 EFFECTS FOUND TO BE INSIGNIFICANT

The potential risk from aircraft accident due to use of the El Toro MCAS is considered low and therefore insignificant for this project. The MCAS is located approximately 6.5 miles southwest of the project site. The main aircraft departure corridor crash hazard zone is located approximately 2.5 miles south of the subject property. Aircraft accidents are in general infrequent, and since the site is located 2.5 miles from the take off and landing air corridor, it appears the site will experience minimal risk due to aircraft accident. In addition, the air station is scheduled for closure by 1999, and unless subsequently utilized for commercial or private aircraft use, the risk of aircraft accident generated by this facility is further reduced.

A (1.4 million) gallon water tank will be constructed adjacent to the northeast corner of the project site. This water tank is being provided to ensure that the project has adequate water pressure for everyday use and emergency situations. The risk posed by this tank is due to flooding in the unlikely event of tank failure. Periodic inspection and maintenance by the Trabuco Canyon Water District will ensure the integrity of this structure and potential flood risk from tank failure is considered insignificant.

4.11.3 PROJECT IMPACTS

Impact Significance Criteria

The risks posed to public health and safety are considered to be significant if the project will result in the following:

- Provision of insufficient fire protection measures, and/or design plans inconsistent with the Development/Open Space policies of the LUP (Land Use Plan, Chapter 3M, I-3.35).

- The placement of habitable structures within 1,000 feet of a landfill boundary without monitoring gas migration to the satisfaction of the Local Enforcement Agency (LEA), as specified in Title 14, CC&R 17783.5.

- Exposure of humans to radio frequency (RF) energy that exceeds the standards and guidelines established by the American National Standards Institute (ANSI) or National Council on Radiation Protection and Measurements (NCRP). The Ansi standards are set in the *American National Standard for Safety Levels with Respect to Human Exposure to Radio Frequency*

Electromagnetic Fields, 3 kHz to 300 GHz (ANSI 1992), and are similar to the NCRP maximum personal exposure limits.

4.11.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Wildfire

Due to topography, biology, and weather conditions the project site is located in area classified as a "Special Fire Protection Area" by the Orange County Fire Authority. To help mitigate property damage and risk to project residents in the event of a wildfire in the project vicinity, a number design measures would be incorporated into this project.

First the project site will implement a comprehensive fuel modification program in accordance with County standards. Typically fuel modification consists of a twenty-foot setback zone (Zone A), a minimum of fifty foot irrigated zone (Zone B), with an additional minimum of one hundred feet (100') of brush thinning zone (Zones C and D). Exhibits 64 and 65 illustrate these standards. Manufactured slope and remedial grading areas will be replanted with native low fuel plant species to further reduce the fire risk.

The site is also located ½ mile east of the Portola Hills Fire Station and less than a 30-second flight time from the upper Oso Reservoir, which will be used by OCFA helicopters, and a ten minute flight time to the site from the helicopter station at Fullerton Airport. (Helicopter dispatch is only included in dispatch to Wildland fires not structural fires onsite.) Therefore, during wildfire suppression operations, emergency response times to the subject property are expedite. To ensure fire fighter access to wilderness areas surrounding the site, individual lots around the project perimeter will provide a recorded unobstructed fire access easement through these properties ensuring adequate emergency access to all portions of the project's perimeter. Finally project construction will use alternative fire resistant materials and methods including concrete tile roofs, closed eaves and soffits, double paned/dual glazed windows, and noncombustible exterior building facing. Wet and dry utilities will be located on opposite sides of the street to minimize lane closures during maintenance periods.

Emergency Access

Due to site constraints, only one primary access roadway can be provided to the eastern portion of the site. The provision of only one main access road is of concern since this roadway could become obstructed and impassible in emergency situations creating an impact to public safety. As indicated

on the site plan, primary project access is provided from El Toro Road by the main spine road extending the length of the site, with secondary access via Valley Vista Way in the Hidden Hills tract south of the project site. This roadway design leaves a majority of the proposed lots with one single access point east of Valley Vista Way. In the event that this east access point is blocked or impassible in an emergency situation, residents and emergency personnel have no other all weather access alternatives. As indicated by the OCFA, mitigation of this restricted access may be provided by the proposed fire mitigation features and by providing internal fire sprinklers for the single access lots in the proposed project.

Wildlife Interaction

Conflict between wildlife and project residents and pets is an associated project risk due to the proximity of wild areas to the subject site. As more residential development occurs at the interface with wilderness areas, the potential for increased contact with dangerous wild animals increases. In the past, when development encroached into previously undeveloped areas, the wildlife would move on to new more remote foraging ranges. Unfortunately, due to developmental encroachment which now encircles the remaining wilderness areas, the ability for animals to relocate to new grounds is limited. A number of animal species, particularly coyotes and raccoons have proved particularly adaptable to human presence, foraging and hunting in proximity to residential housing tracts.

4.11.5 CUMULATIVE IMPACTS

Implementation of the proposed project will add to the cumulative encroachment of residential tract development into existing remaining rural and wilderness areas, further reducing the natural foraging habitat area available to area wildlife and increasing the opportunities for human/animal conflict within the interface zone between the built manmade and natural environments.

Project construction within extreme fire risk areas adds to the potential cumulative impact of increased fire frequency and increased property and human loss due to fire events.

4.11.6 MITIGATION MEASURES

PDF 11-1 Implement a comprehensive fuel modification program in accordance with Section 27 of Appendix II-A of the 1994 Uniform Fire Code as adopted by County Ordinance 3954 (the Wildland Urban Interface Task Force report was not adopted and is not enforced by the OCFA). Exhibits 9 and 64 illustrate the fuel modification zones and, although adequately described, it should be noted that the distances are horizontal measurements rather than vertical and, therefore, may actually be larger zones as measured vertically up or down a slope (based on topography).

PDF 11-2 Incorporate the use of native, low fuel plant species into the landscape plan for both manufactured slope areas and remedial grading areas where appropriate as approved by the OCFA.

PDF 11-3 Provide for the construction of a water tank off site to ensure adequate on site water supply and OCFA fire flow requirements. The minimum fireflow requirements for this project of 1500 gpm for a minimum of 2 hours at 20 psi residual pressure. This flow must be available 24 hours per day .

PDF 11-4 Wet and dry utilities shall be constructed on opposite sides of the project streets to minimize land closure during maintenance periods.

PDF 11-5 Residential structures shall be constructed of fire-resistant material, including but not limited to, "Class A roof assemblies", closed eaves and offsets, double paned or dual glazed windows. The exterior walls of structures will be constructed of " 1-hour fire resistant materials" and all structures will have fire sprinklers.

PDF 11-6 All residential structures shall be required to have automatic interior fire sprinkler systems.

PDF 11-7 The interface area between residential lots and open space areas within the project boundary shall be wrought iron fenced to minimize intrusion of wildlife into the built portions of the project site.

Standard County Conditions and Mitigation Measures

SC 11-8 Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.

SC 11-9 Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.

SC 11-10 Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.

SC 11-11 Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to the Fire Chief for review and approval.

SC 11-12 Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be clearly marked.

SC 11-13 Prior to the issuance of any certificates of use and occupancy, street improvement

plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.

SC 11-14 Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief. Contact the Orange County Fire Department at (714)744-6623 for a copy of the "Guidelines for Fire Department Emergency Access".

SC 11-15 Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manger, Environmental and Project Planning Services Division. The Planning and Development Section shall be contacted at 744-0403 for requirements to be met and clearance of this condition. The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants.

SC 11-16 Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be necessary by the Fire Chief before the introduction of any combustible construction material into the project area.

SC 11-17 Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.

4.11.7 UNAVOIDABLE ADVERSE IMPACTS

Due to the proximity of the project to surrounding wilderness areas some contact between the human environment and wildlife is unavoidable, although not considered significant.

4.12 PUBLIC SERVICES

4.12.1 EXISTING ENVIRONMENTAL SETTING

Sheriff

The project is serviced by the Orange County Sheriff-Coroner's Department. The Sheriff's substation is located approximately 17 miles to the southwest at 30331 Crown Valley Parkway in Laguna Niguel. Two to four patrol cars service the area east of I-5, depending on the shift and day of the week.[13] There are currently 186 uniformed deputies assigned to this substation.

The average response time is nine (9) minutes, and varies based on the location of the deputies at the time of the call. Current response times vary from five (5) minutes to fifteen (15) minutes.

Fire

The project site is essentially undeveloped open space. The topography consists of moderately steep grass and shrub covered hillsides. Oak and sycamore woodlands are prevalent along canyon floors. The surrounding area is characterized by clustered residential developments and permanently preserved open space.

The project site is located within the service area of the Orange County Fire Authority (OCFA). OCFA provides fire safety and emergency services to the residents in the area. OCFA maintains a fire station (#42) at 19150 Ridgeline road in Trabuco Canyon approximately one-half mile from the project site and with a projected response time of less than five (5) minutes. The project site is also less than 30 seconds flight time from Upper Oso Reservoir, which can provide water for OCFA helicopters, and a ten minute flight time to the site from the helicopter station at Fullerton Airport. (Helicopter dispatch is only included in dispatch to Wildland fires not structural fires onsite.) Therefore, during wildfire suppression operations, emergency response times to the subject property are expedite.

The Trabuco Canyon Water District maintains a 14-inch water line in El Toro Road. Due to site constraints, the majority of the project site is served by only one access road. A second access road is located south of the project off of Valley Vista Way and is for emergency use only.

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[13] *Kathryn Douglas, South Operations Division, County of Orange, Sheriff-Coroner Department - 11/10/95.*

Because of the topography, vegetation and climatic conditions, the OCFA has classified the project site to be in the Extreme Fire Hazard Severity Zone.

Education

The project site is located within the Saddleback Valley Unified School District which provides educational services to grades K-12. Existing and planned school enrollment and capacities are shown in Table 32.

Table 32
EXISTING AND PLANNED SCHOOL ENROLLMENT/CAPACITY[14]

Grade Level	School	Spring 1997 Enrollment	Capacity
K-6	Portola Hills Elementary 19422 Saddleback Ranch Rd. Trabuco Canyon	828	Near Capacity
7-8	Rancho Santa Margarita Intermediate 21931 Alma Aldia Rancho Santa Margarita	1,305	Near Capacity
9-12	Mission Viejo High School 25025 Chrisanta Drive Mission Viejo	2,085	—

Portable classroom facilities are currently in use at all of the above outlined district schools.

School Funding

The School Facilities Act (Government Code §65995) was enacted to allow school districts to assess developer fees to help cover the cost of constructing or reconstructing school facilities necessary to accommodate increases in student population. It also set out to limit the amount that local agencies

[14] *Telephone conversation, Mary Lou Smith, Facilities Department, SVUSD - 4/2/97*

could require of developers to mitigate the impact of development on school facilities. These fees were never intended to cover the full cost of developing new school facilities. The Green-Hughes School Building Lease-Purchase Bond Law of 1976 was approved by the State Legislature to match the developer fees collected by a school district if the district could demonstrate that, even after collection of fees (currently up to $1.72 per square-foot of assessable for residential uses and $0.27 per square-foot for commercial/industrial uses), additional funding was still needed.

Because of the financial difficulties plaguing the State government and substantial demand for funds from school districts statewide, the State Legislature recently enacted a new program for the financing of new school facilities. Senate Bill No. 1287 (SB 1287) took effect on January 1, 1993, with the intent of diverting the primary financial responsibility for school facilities to the school districts and limiting the role of the State to districts with low assessed valuation, those that have met or exceeded their debt capacities, or those that are unable to supply the expected level of local revenues. In doing so, SB 1287 repealed the funding by the State Allocation Board under the Green-Hughes School Building Lease-Purchase Bond Law. It increased the residential developer fees $1.00 up to $2.72 per square-foot (Government Code §65995.3) and identified the developer fees as the exclusive method of mitigating project-related impacts on school facilities under the California Environmental Quality Act for both administrative and legislative acts (Government Code §65996). SB 1287 also prohibited public agencies from either denying approval of a project on the basis of the adequacy of school facilities of imposing conditions, other than the requirement to pay the developer fees, on the approval of a project for the purpose of providing school facilities.

However, the long-term standing of SB 1287 was dependent upon the results of the November 1993 general election when Proposition 170 (Assembly Constitutional Amendment 6) was voted on throughout the state. This proposition failed to receive a majority of votes and, as a result, school districts lost that ability to collect the additional $1.00 per square-foot of residential space and the districts once again have to rely on the State to provide matching funds for new school construction. The current residential school impact fee is $1.72 per square-foot. Also, public agencies may now impose conditions, in addition to the requirement to pay the developer fees, on the approval of a general plan amendment or zone change for the purpose of mitigating impacts on crowded school districts. Public agencies are still prohibited from denying approval of a project on the basis of the inadequacy of school facilities.

Additional mechanisms available to school districts to fund new school construction include community assessment districts and general obligation bonds to help fund new school construction. Because Proposition 170 was rejected by the majority of voters, State law requires a two-thirds

majority vote to pass either of these measures.

Library

The project lies within the service area of the Orange County Public Library System. The closest library branch is the Rancho Santa Margarita Branch Library at 30902 La Promesa in Rancho Santa Margarita. The Silverado Library is located at 28192 Silverado Canyon Road and could also serve the project site.

Solid Waste

Trash pickup in the vicinity of the project site is provided by Waste Management of Orange County which is contracted by the County of Orange and will be providing trash pickup to the project.

4.12.2 EFFECTS FOUND TO BE INSIGNIFICANT

Sheriff

The Initial Study prepared for the proposed project did not identify any sheriff related effects as insignificant.

Fire

The Initial Study prepared for the proposed project did not identify any fire related effects as insignificant.

Education

The Initial Study prepared for the proposed project did not identify any education related effects as insignificant.

Library

The Initial Study prepared for the proposed project did not identify any library related effects to as insignificant.

Solid Waste

Waste Management of Orange County will be able to provide trash pickup and recycling services for the proposed project. The Integrated Waste Management Department has available landfill space for the proposed project.

4.12.3 PROJECT IMPACTS

Sheriff

The Orange County Sheriff's Department has indicated that it can provide adequate police service to the project area. The new response time varies with the location of the deputies at the time of the call, and range from five (5) to fifteen (15) minutes. Based on an officer/population ratio of 2:1000, three additional officers would be required by the project.

Fire

The project proposes 705 manufactured single family residential dwelling units on 222.23 acres of land that is classified as a High Fire Hazard Severity Zone by the OCFA. A 1.4 million gallon water tank will be constructed in the northeast corner of the project site. This tank will be able to meet the water demand and fire flow requirements for the project (860,000 gallon water supply/540,000 gallon fire flow)[15].

The proposed project is residential community with two points of access (spine road at El Toro Road and Valley Vista Way). Valley Vista Way is proposed as an emergency access only. Portions of the project above Valley Vista Way would be served by only one access, El Toro Road. Emergency medical response to areas above Valley Vista Way could be delayed, if the single point of access is blocked or made impassable.

Education

Implementation of the proposed project would add additional students to an already overcrowded system. Project-related student generation is shown in Table 33.

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[15] *Fire flow based on 1,500 gallon per minute (GPM) for six (6) hours - Page Dougherty, OCFA.*

Table 33
PROJECT-RELATED STUDENT GENERATION

Grade	Units	Student Generation Factor[16]	Student Generation
K-6	705	0.340/du	240
7-8	705	0.065/du	46
9-12	705	0.160 du	113
Total			**399**

As shown, 399 K-12 students would be generated at buildout of the proposed project.

Library

Implementation of the proposed project would result in additional demand for library services in the project area.

The local branches of the Orange County Public Library System will be able to serve the needs of the project's residents. The system has established the following standards for service:

- .2 square feet of library space per capita;
- 1.3 volumes per capita.

Based on an average of 2.57 persons per dwelling unit countywide, the proposed project will increase population by 1,812 persons using the above figures. Development of the proposed project will require approximately 356 square feet of additional library space and approximately 2,314 additional volumes. Currently, according to the County, most Orange County public libraries are within current service guidelines. However, due to County budget constraints, branch libraries vary their hours and reduce services to cut spending. The County also requires participation in the County's Development

[16] *Saddleback Valley Unified School District*

Fee Program for Libraries. Currently the fee is set at $185.00 per dwelling unit.

Solid Waste

The project will have trash and recycling collection services provided by Waste Management of Orange County (WMOC). WMOC will provide storage containers for refuse collection and recycling bins for recyclable materials. Refuse is collected once a week and recyclable materials will be collected every other week. Currently WMOC charges $13.96 per dwelling unit per month. WOC estimates an average of 65 pounds of refuse per month per household unit in unincorporated Orange County. Table 34 shows the estimated solid waste generation for the proposed project.

Table 34
PROJECT-RELATED SOLID WASTE GENERATION

Land Use	# of Units	Generation Factor	Monthly		Annual	
			Lbs.	Tons	Lbs.	Tons
Single Family Residential	705	65 lbs/du/mo	45,825	22.91	549,900	274.95

Refuse will be transported by the County run Integrated Waste Management Department to one of two (2) County owned landfills. They are Prima Deshecha, a 1500 acre facility in San Juan Capistrano and Frank Bowerman, a 725 acre facility in Irvine. The Integrated Waste Management Department of Orange County runs five (5) landfills in Orange County and they indicate that they will have available landfill capacity for 50 years.

Recyclable materials are transported to Sunset Environmental in Irvine for processing.

Impact Significance Criteria

The effects of the project on public services is considered significant if the project will result in the following:

- The demand for school facilities, police and fire protection, library services, or solid waste facilities meets or exceeds their capacity.

4.12.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Sheriff

The project will have no significant impact on the Orange County Sheriff's Departments ability to provide adequate police services.

Fire

Due to topography, vegetation and climatic conditions, the project site is located in an area classified as a "Special Fire Protection Area" by the OCFA.

Because much of the project would be served by a single access road, the OCFA has expressed concern that public safety could be compromised should this road become blocked or impassable.

Education

Implementation of the proposed project would result in the generation of about 400 additional students into the currently overcrowded Saddleback Valley Unified School District.

Library

The project will not have a significant impact on the Orange County Public Library System's ability to provide services.

Solid Waste

WMOC would be able to provide refuse collection and Integrated Waste management does have landfill space available. There are no significant impacts from the project.

4.12.5 CUMULATIVE IMPACTS

Sheriff

Anticipated countywide growth combined with the project impacts would have a cumulative impact on Sheriff Department services over time.

Fire

The anticipated countywide growth in combination with the project impacts would have a cumulative impact on fire and emergency services in Orange County.

Education

District-wide growth in combination with project-related impacts would result in cumulative impacts to the Saddleback Valley Unified School District.

Library

This project in combination with regional growth would have a cumulative impact on the Orange County Public Library System.

Solid Waste

The Integrated Waste Management Department indicates that landfill space is available for the next 50 years and the project will not have a significant impact on landfill capacity; however, regional development will have a cumulative impact on available landfill space.

4.12.6 MITIGATION MEASURES

Project Design Features

Sheriff

PDF 12-1 The Orange County Sheriff's Department shall be consulted during final project design to minimize security related impacts.

Fire

PDF 12-2 Implement a comprehensive fuel modification program in accordance with the guidelines established by the Wildland Urban Interface Task Force, July 1994, as approved by the Orange County Fire Authority (OCFA).

PDF 12-3 Incorporate the use of native, low fuel plant species into the landscape plan for both manufactured slope areas and remedial grading areas where appropriate as approved by the OCFA.

PDF 12-4 Provide for the construction of a 1.4 million gallon water tank offsite to ensure adequate onsite water supply for water supply and fire flow use.

PDF 12-5 Wet and dry utilities shall be constructed on opposite sides of the project streets to minimize land closure during maintenance periods.

PDF 12-6 Residential structures shall be constructed of fire resistant material, as approved by the OCFA. In addition, no ventilation openings shall be allowed on the side of residential structures facing natural areas.

PDF 12-7 OCFA shall have the ability to enter the property through the secondary access road located off of Valley Vista Way.

Education

No PDF proposed.

Library

PDF 12-8 The developer shall pay any development fees required by the County of Orange Development Fee Program for libraries.

Solid Waste

No PDF proposed.

Standard County Conditions and Mitigation Measures

SC 12-9 Prior to the issuance of building permits, the applicant shall pay development fees for general County facilities if an applicable fee program has been adopted by the Board of Supervisors pursuant to Section 7-9-700 through 7-9-713 of the Codified Ordinances of the County of Orange, and such fee program is in effect at the time of issuance of building permits, all, in a manner meeting the approval of the Manager,

PDS/Environmental and Project Planning Services.

Sheriff

SC 12-10 Prior to the issuance of the first building permit, the project proponent shall enter into an agreement to (a) participate in funding the provision of the Saddleback Sheriff's Station; and (b) fund the provision of patrol and investigator cars needed to serve the project.

Fire

SC 12-11 Prior to the issuance of any certificates of use and occupancy, all onsite fire protection devices, including fire sprinklers, fire hydrants, alarm systems and fire suppression facilities, shall be installed and maintained in good condition by the property owner in a manner meeting the approval of the Fire Chief.

SC 12-12 Prior to issuance of any building permits for combustible construction, a plan from the developer shall be submitted to and approved by the Fire Chief indicating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site.

SC 12-13 Prior to issuance of certificates of use and occupancy, emergency access shall be constructed in a manner meeting the approval of the Fire Chief.

SC 12-14 The approved fuel modification plan shall be installed prior to the issuance of building permits, under the supervision of the Fire Chief, and completed prior to the issuance of any use and occupancy permits. The CC&R's shall contain provision for maintaining the fuel modification zones including the removal of all dead and dying vegetation and the inspection and correction of any deficiencies in the irrigation system three times a year.

SC 12-15 Prior to the issuance of any grading permits, as part of the area plan, a fuel modification plan and program shall be submitted and approved by the Fire Chief. Contact the Wildland Fire Defense Planning Section at 744-0498 for requirements and clearance of this condition. The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation. Include the method (mechanical or hand labor) for removal of flammable vegetation and the planting of

drought tolerant fire resistant plants.

SC 12-16 Prior to the issuance of any grading permits, the applicant shall submit a list of the quantities of all hazardous, flammable and combustible materials, liquids or gases. These materials shall be classified according to the "Orange county Fire Department Chemical Classification Handout", including a summary sheet listing each hazard class, the total quantity of chemicals stored per class and the total quantity of chemicals used in that class, all in a manner meeting the approval of the Fire Chief.

SC 12-17 Prior to the issuance of any certificate of use or occupancy, all fire hydrants shall have a "Blue Reflective Pavement Marker" indicating its location on the street or drive per the Orange County Fire Authority Standard. On private property these markers are to be maintained in good condition by the homeowners association.

SC 12-18 Prior to the issuance of any building permits, plans for the automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. The system shall be operational prior to the issuance of the certificate of use and occupancy.

SC 12-19 Prior to the issuance of any grading permit, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief indicating the locations of red curbing and signage. Provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color. The CC&R's shall contain a fire lane map, provisions which prohibit parking in the fire lanes, and a method of enforcing fire lane requirements by the homeowners association.

Education

SC 12-21 Prior to the issuance of building permits, the applicant shall pay all applicable school fees required in accordance with State law. Current school impact fees are $1.72 per square-foot of residential.

Solid Waste

SC 12-22 The potential for the proposed project to impact solid waste collection and disposal has been reduced to a level of insignificance through engineering design and

construction techniques. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 12-23 Prior to the issuance of any building permits, a plot plan delineating the capacity, number, and location of all proposed solid waste collection areas shall be submitted to the Manager, HCA/Environmental Health, for review and acceptance. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 12-24 Prior to the approval of a building permit the applicant shall submit a Recycling/Source Reduction Plan to the Manager, PDS/Environmental and Project Planning Services Division, for review and approval. Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during and following construction of the project. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 12-25 Prior to the issuance of any certificates of use and occupancy, the applicant shall provide verification that the solid waste plan delineating the capacity, number, and location of all proposed solid waste collection areas, previously reviewed and accepted by the Manager, HCA/Environmental Health, has been implemented/incorporated into the project, in a manner meeting the approval of the Manager, Building Inspection Services Division.

SC 12-26 Prior to the approval of a Site Development Permit the applicant shall submit a Recycling/Source Reduction Plan to the Manager, EMA/Project Planning Division, for review and approval. Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during and following construction of the project.

SC 12-27 Prior to the issuance of any certificates of use and occupancy, the applicant shall provide verification that the solid waste plan delineating the capacity, number, and location of all proposed solid waste collection areas, previously reviewed and accepted by the Manager, HCA/Environmental Health, has been implemented/incorporated into the project, in a manner meeting the approval of the Manager, Building Inspection Services Division.

Library No SC mitigation measures proposed.

4.12.7 UNAVOIDABLE ADVERSE IMPACTS

Sheriff

No unavoidable adverse impacts would occur to sheriff services following implementation of all outlined mitigation measures; therefore, cumulative impacts would result.

Fire

No unavoidable adverse impacts from the project regarding OCFA's ability to provide fire and emergency services would occur following implementation of all outlined mitigation measures; therefore, cumulative impacts would result.

Education

No unavoidable adverse impacts would occur to education services following implementation of all outlined mitigation measures; therefore, cumulative impacts would result.

Library

No unavoidable adverse impacts would occur to library services following implementation of all outlined mitigation measures; therefore, cumulative impacts would result.

Solid Waste

No unavoidable adverse impacts would occur to solid waste services following implementation of all outlined mitigation measures; therefore, cumulative impacts would result.

4.13 UTILITIES AND SERVICE SYSTEMS

4.13.1 EXISTING ENVIRONMENTAL SETTING

Water

The project site is located within the service area of the Trabuco Canyon Water District (TCWD). The TCWD maintains a 10-inch and a 14-inch water main along El Toro Road and an 8-inch water main along Live Oak Canyon Road. An existing 12-inch steel water line, serving Tract 12724 at the property's southwest boundary, is a Santa Margarita Water District line. This line is capable of serving the property's building pads below elevation 1,152. However, the property's water system is not permitted to join this SMWD line without prior annexation to SMWD. Water service is not currently provided to the project site.

TCWD's water supply is derived primarily from the Baker Filtration Plan which provides 6 cubic feet per second of untreated water for TCWD use. Alternate water sources are: 1) periodic wells within the district which provide pumped, untreated water; and 2) capacity from the Allen-McCulloch pipeline transported via the Metropolitan Water District of Orange County and the Santa Margarita Water District.

The direct source of water for TCWD's 14-inch ACP water line along El Toro Road is a 63,000 gallon water tank (HWL-1165) located near St. Michael's Abbey at El Toro Road to the north of the property and approximately 200 feet south of the El Toro Road/Live Oak Canyon Road intersection.

Wastewater

The project site is located within the service area of the Trabuco Canyon Water District (TCWD). The TCWD maintain an existing trunk sewer line system which runs as a 15-inch gravity line in El Toro Road near the western project boundary. There is also an existing 8-inch line in Valley Vista Way just south of the project. This gravity line flows to and is connected to the TCWD 15-inch line in El Toro Road.

Sewer capacity in TCWD's system has been guaranteed for this project by means of previous payments made to TCWD through an Assessment District formed to benefit the project. Sewer capacity for over 700 single family dwelling units within sewer facilities downstream of TCWD facilities was previously paid for by the project's former developer.

Project area wastewater is conveyed to the Chiquita Water Reclamation Plan, located south of the project site near Ortega Highway.

The project's wastewater flows south on El Toro Road to a pump station at Santa Margarita Parkway and El Toro Road. It is then pumped east and south under Santa Margarita Parkway, and then gravity flows to the Santa Margarita Water District's (SMWD) Chiquita Water Reclamation Plant located near Ortega Highway.

SMWD's Chiquita Reclamation Plan presently has a total capacity of 6 million gallons daily (MGD) and a daily treatment average of approximately 2.5 MGD during the week. On Sundays the treatment average approaches 3 MGD. During rainy weather 4-5 MGD will be treated, however, such swells in treatment are rare. The plant has an ultimate planned capacity of 21 MGD.

Electricity

The project site is located within the service area of the Southern California Edison Company (SCE). SCE supplies electrical power to the area through an existing 12 kw line extending along Santiago Canyon Road.

Natural Gas

The project site is located within the service area of Southern California Gas Company (SCG). SCG has an existing 6-inch main beneath El Toro Road.

Cable

The project site is located within the service area of Cox Communications, which supplies cable TV service for the area.

Communications

The project site is located within the service area of Pacific Bell, which supplies telephone service for the area.

4.13.2 EFFECTS FOUND TO BE INSIGNIFICANT

Water

The project does not result in the need for new local or regional water distribution facilities. The proposed project is located within the TCWD's service area and they indicate that they will have capacity to serve the site.

Wastewater

TCWD will be able to provide waste water collection services for the proposed project. TCWD indicates that sufficient sewer capacity has been obtained for the property and no new local of regional facilities will need to be constructed.

Electricity

SCE will be able to provide electrical service to the area. The project does not result in the need for new or substantial alterations to existing electrical supply lines.

Natural Gas

SCG Will be able to provide natural gas service for the proposed project The project will not result in the need for new or substantial alterations to existing natural gas supply lines

Cable

Cox Communications will be able to supply cable service to the proposed project.

Communications

Pacific Bell will be able to supply telephone service to the proposed project.

4.13.3 PROJECT IMPACTS

Water

TCWD has indicated that the project's water needs can be met Water demands were estimated using

current Orange County Fire Authority criteria plus current TCWD standard guidelines. TCWD has established the average annual water demand at 450 gallons per dwelling unit (du) per day for residential land uses. Table 35 shows the project-related water demand.

Table 35
PROJECT-RELATED WATER DEMAND

Land Use	#of Units	Generation Factor	Gallons Per Day
Single-Family Residential	705	450 gal/du/day	317,250
Irrigation	69.9 ac	2.5 af/ac/yr	157,900
Total			**475,150**

Water for irrigation has been estimated to require 2.5 acre feet per acre, per year (af/ac/yr). Maximum day demand has been calculated using TCWD's 2.0 multiplier for residential and 2.5 multiplier for irrigation uses.

Since the project will have a single water source it is classified as a "stand alone" zoned water distribution system. Proposed service zones for the project are:

Zone 0	Existing systems at point of connection 865-feet to 1065 feet.
Zone 1	Elevation 1,085 feet to 1,200 feet.
Zone 2	Elevation 1,200 feet to 1,400 feet.
Zone 3	Elevation 1,400 feet to 1,510 feet.

Because of the elevation gain at the project site a booster pump station near the main water line connection is necessary to pump water to a reservoir located just outside the property's northeast tract boundary at pad elevation 1,590 feet. The water tank site was dedicated to TCWD when Tract Map 10092 recorded. In addition, a $904,425 capital improvement charge was paid to the Trabuco Canyon Water District when Tract Map 10692 recorded in 1988. TCWD will construct the water tank concurrent with project development.

Wastewater

TCWD indicates that the project's waste water needs can be met. Most of the project will be served by an 8-inch line which will gravity flow beneath the collector street into the TCWD's 15-inch line

in El Toro Road. The remaining lots in the southwest corner of the project will connect to the 8-inch line in Valley Vista Way and gravity flow into the 15-inch line in El Toro Road.

TCWD has established a discharge factor of 90 gallons per person with 3 persons per unit. Table 36 shows the estimated project-related sewage discharge flow.

Table 36
PROJECT-RELATED WASTEWATER GENERATION

Land Use	# of Lots	Discharge Factor (90 gal/pp @ 3 persons/unit)	Discharge Gallons (per day)
Single Family Residential	705	270 gal/day	190,350

The existing TCWD 15-inch line serving the project has reserved capacity for the project in the amount of approximately 200,000 gallons per day. In addition, a sewer connection fee of $973,528.58 was paid to Trabuco Canyon Water District when the Tract Map recorded in 1988.

Electricity

SCE indicates that the electrical loads of the project are within parameters of the overall projected load growth which SCE is planning to meet.[17] Unless the demand for electrical generating capacity exceeds SCE's estimates, and provided that there are no unexpected outages to major sources of electrical supply, SCE expects to meet the demand for electricity from the project site. SCE's estimates for residential electrical consumption are based on a figure of 700 kilowatt (kwh) hours per dwelling unit (du) per month. Table 37 shows the monthly and yearly project related electrical consumption.

Table 37
PROJECT-RELATED ELECTRICAL CONSUMPTION

Land Use	Number of Units	Generation Factor	Monthly kwh of Electricity	Annual kwh of Electricity
Single-Family Residential	705	700 kwh/month	493,500	5,922,000

[17] *Written communication, Gary Bullard, SCE - 8/23/95.*

Natural Gas

SCG indicates that the project's natural gas needs can be met without major system expansion.

Gas consumption has been estimated by SCG at 1,095 therms per year per single family dwelling unit. Table 38 shows annual project-related natural gas consumption.

Table 38
PROJECT-RELATED NATURAL GAS CONSUMPTION

Land Use	No. of Lots	Generation Factor	Therms Per Year
Single Family Residential	705	1,095 Therms/du/yr	771,975

Note: 1 Therm = 100 cu.ft. of natural gas

Cable

Cox Communications has indicated that it can provide cable service to the area. There will be no charge to the applicant or homeowners to have cable TV services provided to the project site.

Communications

Pacific Bell has indicated that it can provide telephone service to the area. There will be no charge to the applicant or homeowners to have telephone services provided to the project site.

Impact Significance Criteria

The effects of a project on utilities and service systems is considered to be significant if the project will result in the following:

- The demand generated by the project meets or exceeds the capacity of existing, or otherwise requires their expansion, or requires the construction of major new facilities.
- The project's demands for fuel or energy meet or exceed existing supplies, or otherwise cause supply and/or capacity constraints.

- The project's demands exceed the capacity of existing utility systems, or otherwise require the expansion or construction of major new facilities.

- The project causes significant disruption of service.

4.13.4 SIGNIFICANT IMPACTS OF THE PROJECT PRIOR TO MITIGATION

Water

Project implementation would not result in significant impacts on TCWD's ability to provide water service Due to the elevation change between the water line connection and the reservoir, a booster pump station will be required to provide adequate water supply for the site.

Wastewater

The project will have no significant impacts on TCWD's ability to provide wastewater service to the area.

Electricity

The project will have no significant impacts on SCE's ability to supply electricity to the area.

Natural Gas

The project will have no significant impacts on SCG's ability to provide natural gas service to the area.

Cable

The project will have no significant impact on Cox Communications ability to supply cable TV service to the area.

Communications

The project will have no significant impact on Pacific Bell's ability to supply telephone service to the area.

4.13.5 CUMULATIVE IMPACTS

Water

The cumulative impacts of the project are not significant. The project falls within the plans of the TCWD for long range growth.

Wastewater

The cumulative impacts of the project are not significant. The project falls within the plans of the TCWD for long range growth.

Electricity

The cumulative impacts of the project are not significant. The project falls within the plans of SCE for long range growth.

Natural Gas

The cumulative impacts of the project are not significant. The project falls within the plans of SCG for long range growth.

Cable

This project along with other proposed projects would not have a cumulative impact on Cox Communication's ability to provide services to the area.

Communications

This project along with other proposed projects would not have a cumulative impact on Pacific Bell's ability to provide service to the area.

4.13.6 MITIGATION MEASURES

Project Design Features

Water

PDF 13-1 The new booster pump station shall be paid for by the applicant and designed and function according to TCWD's guidelines and standards.

PDF 13-2 Operational capacities and pressure parameters for design of the booster pump station (approved by OCFA) shall be determined at design stage and should incorporate but not be limited to the following requirements:

- It shall meet the maximum day demand for the "stand alone" zones of Saddleback Meadows with an operating time of 24 hours and without its largest unit in service.
- It shall be designed with a back-up generator for the booster pump, as well as fuel and maintenance provisions.
- It shall incorporate the typical 3 or 4 pump system with an alternating state sequence.
- It shall pump from TCWD's El Toro Road zone (1,165 feet HWL) to the storage facility (reservoir) proposed.
- It shall have the ability to refill the proposed reservoir, if it were empty, within 72 hours while also providing for maximum day demands on the water system during that time.

PDF 13-3 Water conservation measures to be implemented consist of water-conserving features in the design and construction of residential homes and uses, plus use of drought-tolerant plant materials in the slope and streetscape plantings. Proposed water conservation measures also include:

- Supply line pressure· Water pressure greater than 50 pounds per square inch (psi) reduced to 50 psi or less by means of pressure-reducing valves.

- Ultra-low-flush toilets: 1.5 gallon-per-flush toilets installed in all new construction.
- Landscape with low-water-using plants wherever feasible.
- Grouping of plants of similar water use to reduce over-irrigation of low-water-using plants.
- Extensive use of mulch as top cover to improve water-holding capacity of the soil.
- Installation of efficient irrigation systems that minimize runoff and evaporation, and maximize the amount of water reaching plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are proposed methods of increasing irrigation efficiency.

PDF 13-4 All design and landscape features shall comply with TCWD's guidelines and standards.

Wastewater

PDF 13-5 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Electricity

PDF 13-6 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Natural Gas

PDF 13-7 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Cable

PDF 13-8 All utilities shall be installed by Cox Cable in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Communications

PDF 13-9 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Standard County Conditions and Mitigation Measures

Water

SC 13-10 Prior to the issuance of any building permit(s), the applicant shall provide a report to the Manager, PDS/Building Permits Services Division, indicating that plans showing the location of all proposed reclaimed water lines used to irrigate open spaces, parks, and other landscaped areas, have been submitted to and approved by the Trabuco Canyon Water District.

SC 13-11 Prior to the issuance of building permits, water conservation measures shall be incorporated into the development design plans and which shall be submitted for approval to the Trabuco Canyon Water District.

Wastewater

SC 13-12 Prior to the issuance of a certificate of use and occupancy, sewer lines, connections, and structures shall be installed in a manner meeting the approval of the Manager, HCA/Environmental Health.

A. All waste water facilities and line shall be constructed and maintained to meet TCWD standards and requirements.

B. All sewer lines shall be underground facilities.

C. The project shall comply with all State of California Health and Safety Codes.

Electricity

SC 13-13 Prior to the issuance of a building permit, project proponent shall consult with the local gas and electric companies regarding feasible energy conservation features that should be included in the design of the proposed project. A note on the building plans

and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 13-14 Prior to the issuance of a building permit, the project proponent shall incorporate passive or natural heating and cooling opportunities in the design of the proposed project including but not limited to the following: solar energy use; thermal insulation; tinted or solar reflective glass; orientation to sunlight; use of deciduous trees in landscaping; installation of roof fans; utilize fluorescent lighting, switches and thermostat, utilize time-controlled lighting; and, utilize AC units with 100% outdoor air economize. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Natural Gas

SC 13-15 The applicant shall provide for all lines and mains necessary to provide natural gas to the project.

SC 13-16 The applicant shall obtain all required permits and follow all SCG, State and County regulations and requirements regarding natural gas service.

Cable

No standard condition requirements.

Communications

SC 13-17 Applicant shall comply with the requirements of the California Public Utilities Commission and Pacific Bell Telephone Company for the provision of telephone service.

4.13.7 UNAVOIDABLE ADVERSE IMPACTS

Water

The project would create additional demand for water in the area. Following implementation of all

recommended mitigation measures and standard code requirements, no significant adverse impacts would result for water supply.

Wastewater

The project will produce no unavoidable adverse impacts.

Electricity

There are no unavoidable adverse impacts from the project regarding SCE's ability to provide electricity.

Natural Gas

The project will produce no unavoidable adverse impacts.

Cable

There are no unavoidable adverse impacts from the project regarding Cox Communications ability to provide service to the area.

Communications

There are no unavoidable adverse impacts from the project regarding Pacific Bell's ability to provide service to the area.

5.0 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

5.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

The environmental changes which would occur as a result of implementation of the project will occur mainly as a result of alterations to the physical environment. Most likely, once development occurs on the site, the land will not be returned to its current primarily natural state. There will be an incremental increase in air pollution as a result of vehicle emissions. Increased traffic and urban activity will also result in increased noise in the area. This EIR has identified cumulative and project specific air quality impacts, land-form modification, visual effects, and reduction of native habitats and sensitive and non-sensitive species dependent on those habitats on the project site as the significant unavoidable adverse impacts of the project.

5.2 GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION

The proposed project would supply 705 manufactured single-family residential dwelling units into RSA 43-C, a jobs-rich, housing-poor area. This represents a significant addition to the County's existing stock of affordable housing units. Furthermore, per the Conditions of Approval originally placed on Tentative Tract 10692, a total of 470 lots are to be sold in the affordable range. This figure is further broken down as follows: 71 low/ moderate, 70 Medium I, and 329 Medium II as defined by the County.

The project would also be consistent with SCAG's Regional Comprehensive Plan (RCP), Growth Management Chapter. The project, through provision of residential units in a jobs rich region, will assist in meeting the RCP goals of enhancing housing growth in job rich areas, and encouraging local jurisdictions to achieve a balance between the jobs and the cost of available housing. The project also provides housing within close proximity to major employment centers, thus reducing vehicle trips and vehicles traveled. The proposed development, therefore, is consistent with the growth management policies of SCAG's RCP.

Secondary growth inducing impacts will result with the provision of urban services and extension of infrastructure to an undeveloped area within the Foothill-Trabuco Specific Plan. Although the project will result in the extension of urban services, no potential exists to stimulate development on adjacent parcels due to topographic, circulation system and utility sizing constraints. Since the project is consistent with the adopted General Plan, and there is little, if any, unplanned or uncommitted land use in the area, this is a minor effect.

6.0 *ALTERNATIVES*

Pursuant to CEQA, the EIR must assess a reasonable range of alternatives to the project action or location (Section 15126{d}0). The discussion must focus on opportunities for eliminating any significant adverse environmental effects, or reducing them to a level of insignificance "...even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly..." (Section 15126{d}[1]). The EIR must identify an environmentally-superior alternative among other alternatives. As with cumulative impacts, the discussion of alternatives is governed by the "rule of reason." The EIR need not consider an alternative.whose effect cannot be reasonably ascertained, or does not contribute to an informed decision-making and public participation process.

The purpose of this section is to describe and evaluate a range of reasonable and feasible alternatives to the proposed project and to determine whether any alternative "may eliminate or reduce to a level of insignificance" adverse impacts associated with the proposed site development. The Foothill-Trabuco Specific Plan EIR identified two alternatives for the project site, staff Alternatives A and B. These alternatives are evaluated in this document as Alternatives 2 and 3 respectively.

Alternatives Objectives:

Pursuant to the requirements of CEQA, the alternatives have been developed to meet the following development objectives of the proposed project.

- Develop a residential community which preserves onsite sensitive biological, cultural and aesthetic resources and conforms to existing landform conditions, to the extent feasible, in response to County and community concerns.

- Minimize visual effects on surrounding properties through the application of sensitive grading design, habitat restoration and landscape screening.

- Remediate and provide geotechnical stabilization for onsite landslide areas affecting the proposed development area.

- Implement the policies contained in the General Plan, Foothill/Trabuco Specific Plan Aliso Creek Corridor Concept Specific Plan and The Air Quality Management Plan.

- Minimize adverse affects to surrounding properties, O'Neill Regional Park and Aliso Creek through buffer/setback zones, design features and landform grading.

- Implement design guidelines and development standards to ensure compliance with current planning and zoning laws requirements through the Area Plan Process.

- Create a fire safe community through incorporation of an area-wide fuel modification program.

- Provide trail connections to the regional riding and hiking trail system.

- Dedicate right-of-way and site stabilization for the widening and improvement of El Toro Road.

The following are alternatives evaluated in this document. Each are summarized in Table 39.

Alternative 1	No Project / No Development
Alternative 2	Foothill-Trabuco Specific Plan Alternative A - 150 Minimum 20,000 sq.ft. lots.
Alternative 3	Foothill-Trabuco Specific Plan Alternative B - 100 SFD Units on 31.7 acres.
Alternative 4	OCP&DS Staff Alternative (EIR 561) - 299 SFD , Minimum 5,000 sq. ft. lots.
Alternative 5	Cluster/Reduced Development Footprint - 318 SFD/MFD.

The alternatives are evaluated based on the following criteria:

1. Identification of specific impacts of each alternative.

2. Comparative analysis of each alternative to the proposed project and the recorded tract map with regard to:

   - Attaining project objectives
   - Feasibility
   - Eliminating/reducing project impacts

3. Identification of the environmentally superior alternatives

Table 39
ALTERNATIVES LAND USE PLAN COMPARISON

ALT NO	DESCRIPTION	NUMBER OF UNITS	MINIMUM LOT SIZE	DEVELOPMENT AREA[1]	REMEDIAL GRADING	CONVENTIONAL GRADING	% OPEN SPACE[2]	WILDLIFE CORRIDOR	TRAIL CONNECTION	COMMENTS
	Proposed Project (705 Lots)	705 Mfd. housing	2,630 sf	156 55 ac	8.9 mcy	2 6 mcy	57%	No	Yes	Increased Level of Impacts
1	No Project / No Development	0	N/A	0.0 ac	0.0 mcy	0 0 mcy	100%	Yes	No	Continuation of Grazing Impacts
2	150 SFD	150 SFD	20,000 sf	138 ac	10.0 mcy	2 5 mcy	52%	No	Yes	Minimum 5,000 sf Pad
3	100 SFD - 30 Acres	100 SFD	4,000 sf	31 7 ac	2.0 mcy	1.0 mcy	92%	Yes	Yes	—
4	299 SFD	299 SFD	5,000 sf	155.2 ac	6,3mcy	2.1mcy	72%	Yes	Yes	72% Open Space
5	Cluster/Reduced Development Footprint	318 SF/MF	4,000 sf/ Condo Pads	105 ac	5.0 mcy	1.5 mcy	69%	Yes	Yes	Multi-family Component

1 Does not include remedial grading or fuel modification requirements.

2 Total open space includes both disturbed, undisturbed, slopes, fuel modifications.

6.1 ALTERNATIVE 1 - NO PROJECT/NO DEVELOPMENT

This alternative is required by CEQA and the County of Orange Environmental Procedures for the Preparation of EIRs. Under the No Project Alternative, the project would remain in natural open space for the foreseeable future, with cattle grazing operations continuing. Implementation of the No Project Alternative would result in no development related impacts to the project site. Ongoing degradation of onsite biological resources related to cattle grazing operations would continue to occur.

The No Project/No Development Alternative would avoid any additional adverse or incremental impacts associated with Earth Resources, Air Quality, Water Resources, Biological Resources, Natural Resources, Land Use, Population/Housing, Transportation/Circulation, Public Services, Public Utilities, Hazards, Noise, Light, Aesthetics, and Cultural Resources.

Selection of the No Project/No Development Alternative would eliminate residential housing opportunities to Orange County and greater Southern California residents and not be in conformity with Orange County General Plan Housing Element goals. Moreover, selection of this alternative would require that the County of Orange refund previously paid developer exactions including water fees of $904,425.00 sewer connection fees of $973,528.00 and drainage assessment fees of $74,000.00. Furthermore, records indicate that $973,528.58 in sewer treatment capacity rights, and $904,475.00 in "capital improvement charges" have also been paid. Finally, the applicant has paid to date, over $9,147,700.00 in premiums for security and improvement bonds as a condition of Recorded Tract Map 10692. This includes $5,657,700.00 for street improvements, $3,240,000.00 for landscaping and $250,000.00 for monumentation. Conservatively, this amounts to just under $13 million in applicant expenditures to date, not including an additional amount for the water tank site dedicated to TCWD which has not yet been appraised. Presumably, all of these monies, including an additional amount for the dedicated water tank site, would have to be refunded to the applicant if the current project is not approved.

The No Project/No Development Alternative does not meet the objectives of the proposed project. Under this alternative, no development, including Recorded Tract 10692 for 705 manufactured homes would occur. In addition, no grading/stabilization for El Toro Road or trail connections would occur.

6.2 ALTERNATIVE 2 - 150-20,000 SQUARE FOOT LOTS (FTSP STAFF ALTERNATIVE A)

Alternative 2 proposes the construction of 150 single family lots, with minimum lot sizes of 20,000 sq.ft. Alternative No. 2 is summarized in Table 40.

Table 40
ALTERNATIVE NO. 2 LAND USE SUMMARY

Land Use	Area	% of Site
Single Family Residential	88.6 ac	40%
Streets	17.9 ac	8%
Manufactured Slope	31.6 ac	14%
Natural Open Space	84.1 ac	38%
Total	**222.2**	**100%**

As indicated on the proposed site plan, site access from El Toro Road will be provided by a double loaded roadway traversing the main ridgeline looping back through the oak woodland canyon, connecting with the access road near mid site. Emergency service access would occur via El Toro Road, through St. Michael's Abbey property. Residential lot access is provided either directly off this main road or from short cul-de-sac streets spaced throughout the site. Approximately 138 acres of the 222.23 acre site will be utilized to accommodate the proposed building sites, road circulation system, and conventional and remedial grading. The Alternative 2 site plan is shown in Exhibit 66.

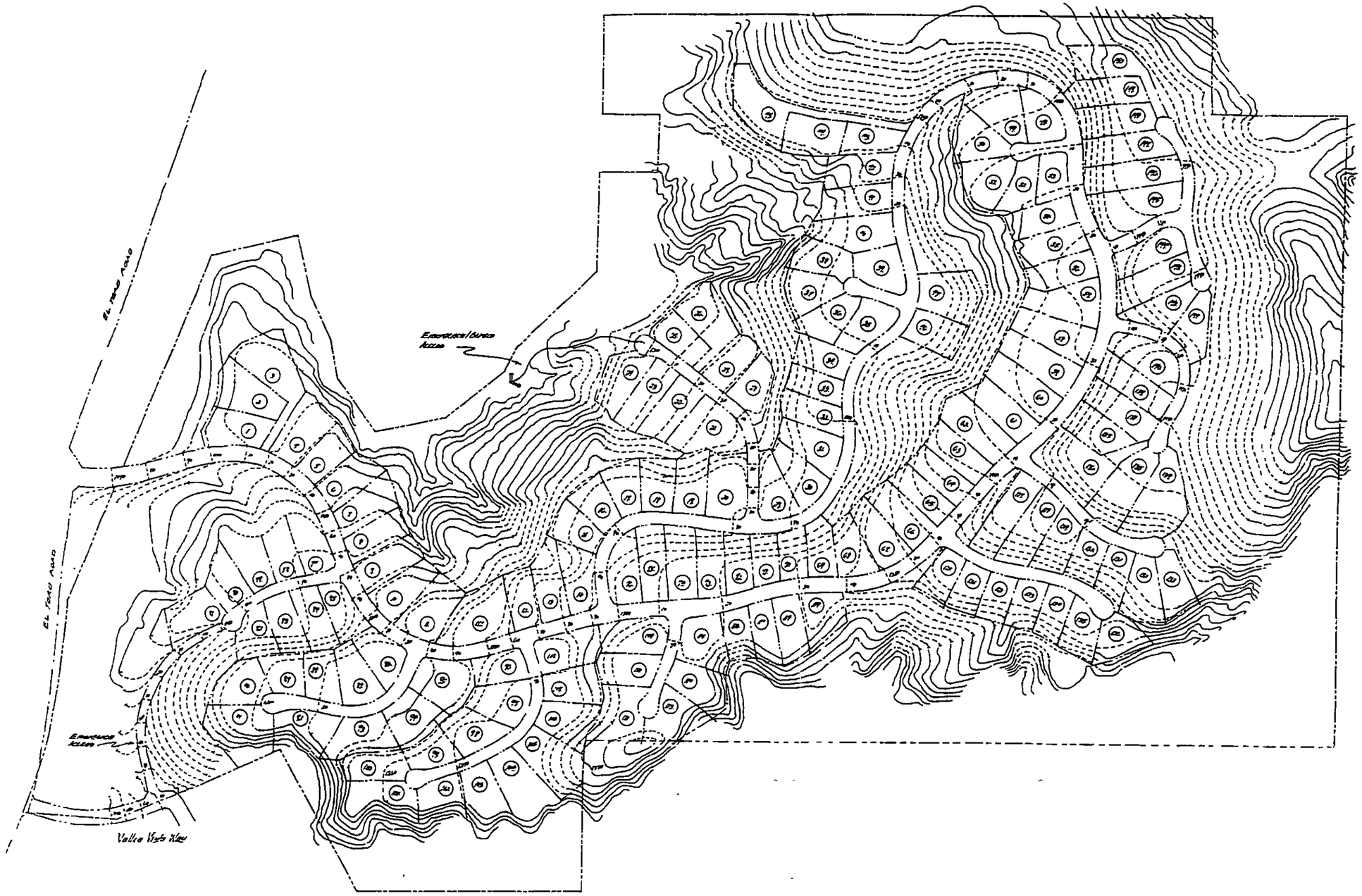
The document entitled "Fiscal Impact Analysis" prepared by Stanley Hoffman & Associates, which is included in this Draft EIR as Appendix J, indicates that this alternative would operate at an annual surplus of $20,667.00 after including fees associated with the Orange County General Fund; County Road Fund; County Library District; and the Harbor, Beaches, and Parks Department.

Land Use/Housing

The project site is located within the FTSP planning area which permits the highest residential density (less than 1 acre/dwelling unit). In terms of gross residential density, this alternative is in compliance with this density standard, however, the Specific Plan also has as an overriding goal which encourages preservation of significant landform, biological and scenic resources, all heavily impacted by this Alternative. However, Alternative 2 would impact a smaller portion of the site (138 acres as opposed to 191 acres for the proposed project), remove less oak woodlands, and provide significantly more open space than the proposed project.

Soils and Geology

To prepare the site for construction, alternative 2 would require a conventional grading volume of 2.5 mcy., not including remedial grading which would contour and blend man-made slopes into the existing natural topography. Remedial grading would amount to 10.0 mcy. Although nearly 75% of the site would experience some form of land alteration, requiring an additional one mcy of grading, this alternative would require less development area than the proposed project.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION
County of Orange P&DS
Scale: 1"=400'
Source: N/A

N

Alternative No. 2 -
150 Single Family Development
20,000 SF Lots

EXHIBIT No. 66

Water/Hydrology

It is estimated that this alternative will generate a domestic water use demand of 60,000 gallons per day which is approximately 88% less than the anticipated domestic water use of the proposed project. In addition, this alternative will require less alteration of natural drainage courses on site, thereby reducing the potential for increased urban runoff impacts as compared to the proposed project. Accordingly, fewer BMP mitigation measures would be required under this alternative.

Transportation/Circulation

Estimated traffic volumes generated by this alternative would be approximately 1,800 vehicle trips per day, about 70% less than the proposed project. A reduction in site generated vehicle trips will have a corresponding reduction in the potential impact of site development on the area circulation system.

Air Quality

Development of 150 residential units as opposed to the proposed 705 units would reduce vehicular air emissions and potential impact to regional air quality by a corresponding percentage. Cumulative emissions would remain significant.

Noise

Surrounding the project site are a number of existing land uses considered sensitive to noise intrusion. Most notably are O'Neill Regional Park, the Ramakrishna Monastery, and St. Michael's Abbey. Since current property use is for grazing land, development of 150 residential units proposed by this alternative will generate an increase in noise levels emanating from the subject site. This change in noise levels, though anticipated to be lower than the proposed project, may still be perceived as intrusive to existing surrounding land use.

Biological Resources

Implementation of Alternative 2 would alter approximately 138 acres of vegetation/habitat on the site to accommodate the construction of 150 single family lots. Site alteration of this magnitude will severely impact onsite biological resources including the elimination of the oak woodlands, ephemeral ponds, coastal sage scrub habitat, and other resources. Alternative 2 would impact the adjacent Aliso Creek riparian habitat similar to the proposed project. A wildlife movement corridor would not be provided with this alternative.

Aesthetics

Similar to the proposed project, this alternative would substantially alter the natural site topography leaving little area of undisturbed open space. Although lot sizes would be much larger under Alternative 2 than with the proposed project, the overriding visual impact will nevertheless be one of an entirely man-made site, thereby imposing a lesser visual impact than the proposed project.

Cultural/Scientific Resources

Alternative 2 would impact a smaller percentage of the site and in turn will potentially have fewer impacts to onsite cultural and scientific resources.

Recreation

Alternative 2 would provide a connection to the regional riding, hiking and biking trail system, thereby creating a similar level of impact to the proposed project.

Hazards

The project site is located in a high fire hazard area. As a result, all future site development is potentially at risk during fire events. The loop circulation system proposed with this alternative provides for improved emergency access as compared with the proposed project, resulting in a higher level of emergency service than the proposed project.

Public Services

Implementation of this alternative would result in incrementally less demand for public services as compared to the proposed project.

Public Utilities

Implementation of this alternative would result in incrementally less demand for public utilities as compared to the proposed project.

6.3 ALTERNATIVE 3 - 100 SFD UNITS ON 30 ACRES (FTSP STAFF ALTERNATIVE B)

Alternative 3 would concentrate all site development on the western third of the project site, reducing the number of dwelling units to no more than 100. Alternative No. 3 is summarized in Table 41.

Table 41
ALTERNATIVE NO. 3 LAND USE SUMMARY

Land Use	Area	% of Site
Single Family Residential	11.3 ac	5%
Streets	5.6 ac	3%
Manufactured Slope	14.8 ac	7%
Natural Open Space	190.5 ac	85%
Total	**222.2**	**100%**

Primary access from El Toro Road would be provided by a two lane 60-foot wide roadway, terminating in a traffic circle which surrounds an overview park. Residential lot access will be provided off secondary cul-de-sac streets located on the south side of the primary tract road. A second emergency access road connection would be provided at Valley Vista Way near the southwest corner of the project site. The proposed development would consist of 100 single family residential lots, minimum lot size 4,000 sq.ft. on 31.7 acres of the site. Estimated conventional grading volumes are approximately 1.0 million cu. yds. Approximately 86% or 190.53 acres will be left as natural open space.

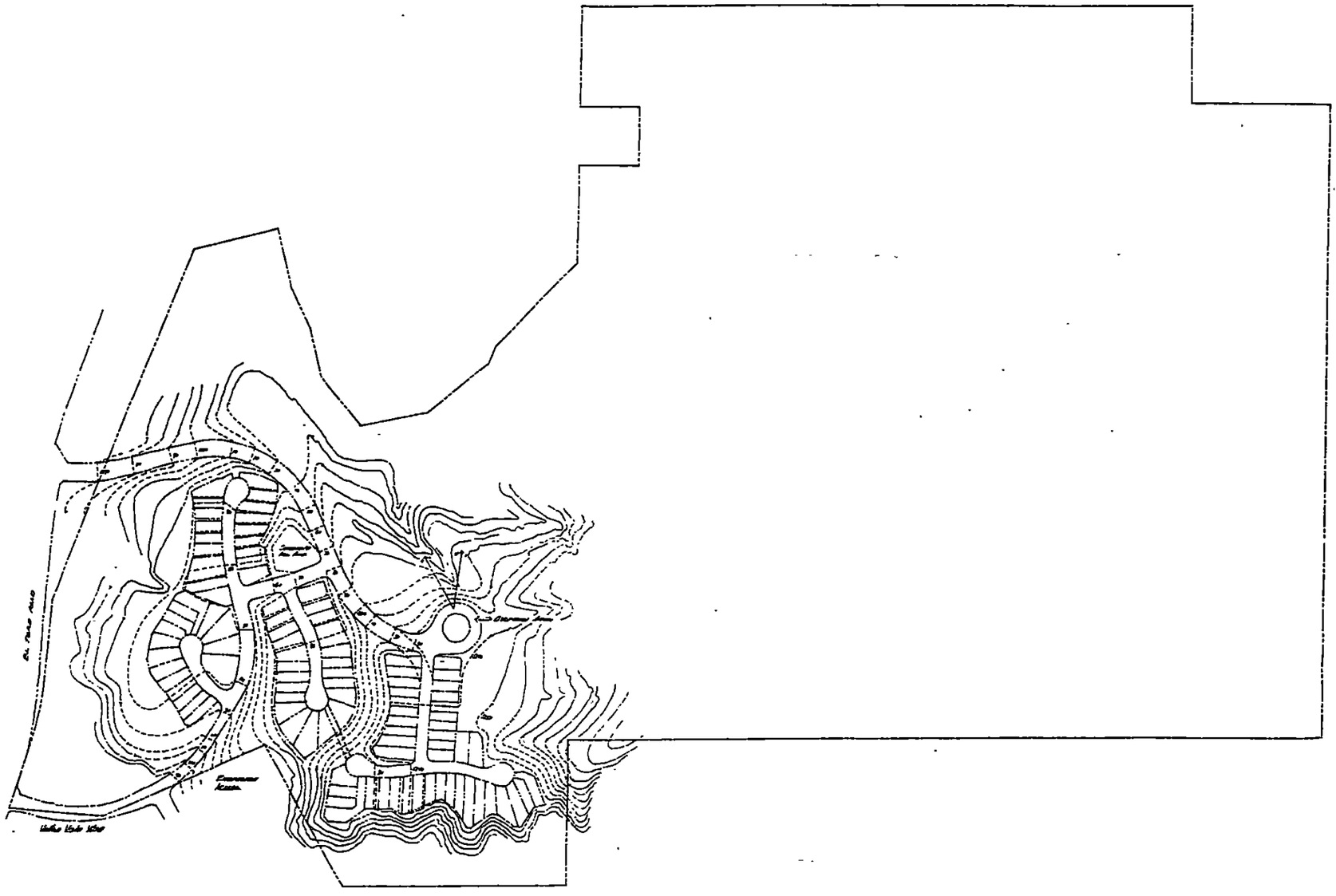
Financial analysis prepared for this project indicates that this alternative would operate at an annual deficit of $4,955.00 after including fees associated with the Orange County General Fund; County Road Fund; County Library District; and the Harbor, Beaches, and Parks Department.

Land Use

This alternative would cluster all development on the lower western portion of the site adjacent to El Toro Road and the Hidden Ridge/Hidden Hills community. Though proposed lots sizes are relatively small, the vast majority of the site will be retained in natural open space. Alternative 3 would preserve more significant landform, biological, cultural, and scenic resources than the proposed project.

Soils and Geology

Potential grading volumes and associated impacts would be approximately 70% less than for the proposed project. In addition, land form alteration will be confined to just 31.7 acres of the site leaving the remaining 190.53 acres of the site in a natural state. By comparison, the proposed project involves approximately 211.0 acres of land alteration leaving 14% of the site as undeveloped open space Grading impacts associated with site development are thus substantially reduced under this alternative, as compared to the proposed project.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: 1"=400'
Source: N/A

N

Alternative No. 3 -
100 Single Family Development
30 Acres

EXHIBIT No. 67

Water/Hydrology

Domestic and common area water demand would be significantly reduced by this alternative. It is estimated that development of 100 residences will generate a domestic water use demand of approximately 40,000 gallons per day. Due to the relatively small area devoted to development, potential urban runoff and drainage impacts are significantly reduced by this alternative, as compared to the proposed project.

Transportation/Circulation

Alternative 3 would generate an estimated 1,200 vehicle trips per day a 80% reduction over proposed project estimates. Potential impacts to the surrounding circulation system would be significantly reduced under this alternative, as compared to the proposed project.

Air Quality

A reduction in the number of vehicle trips would have an associated reduction in auto borne air emissions, a corresponding reduction in potential air quality impacts, and a positive affect on SCAQMD goals.

Noise

Development of 100 residential lots clustered on the western portion of the site adjacent to El Toro Road would substantially reduce the potential noise impact to surrounding existing noise sensitive land uses, as compared to the proposed project.

Biological Resources

Alternative 3 would retain the majority of the subject property in natural open space preserving a majority of the significant biological resources onsite. Connection between wilderness areas south and west of the site would be provided by this large open space area, eliminating the need to provide a wildlife movement corridor through developed portions of the property.

Aesthetics

Development would be clustered on the lower less visible portion of the site, preserving views of the site's rolling topography and scenic oak woodlands, as well as reducing the amount of man-made structures from surrounding viewsheds. Alternative 3 would substantially reduce visual impacts to the Ramakrishna Monastery.

Cultural/Scientific Resources

The resulting smaller area of site disturbance under the alternative would significantly reduce the potential impact to cultural and scientific resources onsite, as compared to the proposed project.

Recreation

As indicated on the site plan, Alternative 3 would provide a community recreation area onsite in addition to the overview park area. Connection to the regional riding, hiking and biking trail system would also be provided with this alternative. Recreation impacts under this alternative would therefore be reduced in comparison to the proposed project.

Hazards

The project site is located in a designated very high fire risk area. All residential development onsite is potentially at risk in a fire event. Due to the proximity of the development to El Toro Road as well as the secondary entry road into the site, emergency access is significantly improved by this alternative, as compared to the proposed project.

Public Services

Public services are adequate to support this alternative with a substantially reduced demand, as compared to the proposed project.

Public Utilities

Public utilities are adequate to support this alternative with a substantially reduced demand, as compared to the proposed project.

6.4 ALTERNATIVE 4 - OCP&DS STAFF ALTERNATIVE, 299 SFD UNITS, ON 5,000 SF LOTS

This alternative has 299 single-family detached dwelling units. The average lot size for this project is approximately 6,400 s.f. Access to the project would be provided via a gate-guarded private street off El Toro Road immediately south of the existing Aliso Creek/Trail undercrossing. An emergency only access connects with Valley Vista Way. The project site is 222.2 acres in size. Total open space is approximately 72% (utilizing EMA's criteria for calculating open space). A total of approximately eight acres of offsite area would be affected as a result of project implementation to accommodate slope area, access roads, related remedial grading, the water tank, and County of Orange fuel modification requirements.

Prepared financial analysis indicates that this alternative would operate with recurring annual surpluses of $39,800.00 after including fees associated with the Orange County General Fund, County Road Fund, County Library District and the Harbor, Beaches, and Parks Department.

Alternative 4 is summarized in Table 42.

Table 42
ALTERNATIVE NO. 4 LAND USE SUMMARY

Onsite	Acreage	% Offsite
Residential Lots	44.7	20%
Streets (private)	18.0	8%
Other Dedicated Natural Open Spaces	91.9	41%
Trail Staging Area	.6	0%
Open Space (dedicated to H.O.A.)	67.0	31%
Subtotal	**222.2**	**100%**

* Acreages and percentages are approximations subject to refinement at the Tentative Map stage.

Land Use

The project has been designed to minimize impact on the existing land form. The homes have been located on the relatively level areas in a broad crescent shape flowing along the southern and eastern sides of the site, while the steep terrain of the central canyon area has been left as open space. Development is kept off the eastern major ridgeline bordering the property.

Soils and Geology

The grading concept for this alternative reflects a contour grading approach with utilizes techniques emphasizing variations and takes advantage of the curvilinear street and lotting design, rather than repetitive uniformity. This allows the project a more natural and organic ambiance in keeping with the rolling hillside setting These contour grading techniques consist of the following:

- Integrate grading into the context of existing topography using horizontal rounding of contours;
- Blending of manufactured contours with natural existing contours;
- Rounding at the top and toe of slopes to avoid harsh transitions; and
- Design of development enclaves of varying size and irregular spacing to avoid a uniformly "terraced" appearance.

Earthwork Volumes:

Conventional Grading

- Balanced Cut/Fill (approximate)
  Cut Quantity: 2,100,000 c.y.
  Fill Quantity: 2,100,000 c.y.

- Total Import Quantity: 0
  Total Export Quantity: 0

Remedial Grading

- Total Remedial Grading (Remove & Replace): approximately 6,300,000 c.y.

Based on the preceding alternative summary, grading volumes and geological impacts are substantially reduced under this alternative as compared to the proposed project.

Water/Hydrology

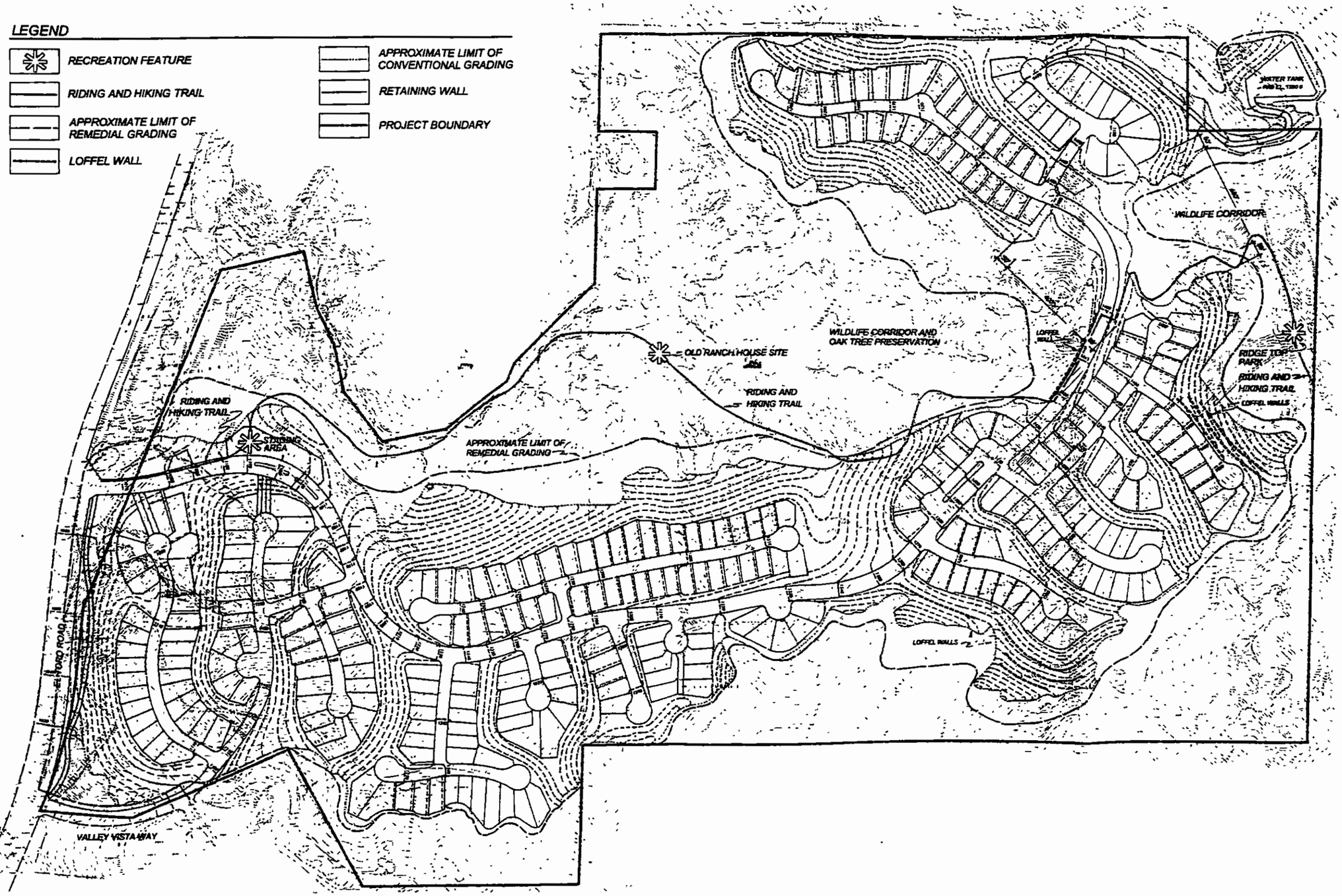
The project acreage (222.2 acres) does not include the adjacent offsite water tank site. A 1.4 million gallon water tank and associated access road is proposed offsite adjacent to the northeast corner of the project site to provide water service to the proposed project. The proposed water tank site was dedicated to the Trabuco Canyon Water District when the existing Final Tract Map was recorded (Tract No. 10692). The water tank will be approximately 30 feet tall, 100 to 110 feet in diameter, bermed, landscape, and painted a complimentary color to the surrounding setting.

Given the reduced residential density, and the substantially smaller development footprint, domestic and common area water demand would be significantly reduced by this alternative. In addition, potential urban runoff and drainage impacts are reduced under this alternative as composed to the proposed project.

Transportation/Circulation

Access to the project would be provided via a gate guarded private street off El Toro Road immediately south of the existing Aliso Creek/Trail undercrossing. An emergency only access connects with Valley Vista Way. Onsite circulation is proposed with a system of private streets consisting of a primary spine street (56-foot r.o.w.) And a series of cul-de-sacs (41-, 45-, and 52-foot r.o.w.). An encroachment easement is required from the County of Orange to accommodate the project access road where it traverses County owned property along the western most boundary of the site.

Given the reduced number of dwelling units under Alternative 4, this alternative would result in a commensurate reduction in vehicle trips as compared to the proposed project.



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: 1"=400'
Source: N/A

N

Alternative No. 4 - 299 Single Family Development

EXHIBIT No. 68

Air Quality

A reduction in the number of vehicle trips would have an associated reduction in air emissions, a corresponding reduction in potential air quality impacts, and a positive affect on SCAQMD goals.

Noise

Development of 299 residential lots would substantially reduce the potential noise impact to surrounding noise sensitive land uses as compared to the proposed project.

Biological Resources

Total open space under Alternative 4 would amount to approximately 72% of the site. This represents a 58% increase over the proposed project. In addition, a wildlife movement corridor has been incorporated into the project design to address the importance of regional wildlife movement linkages between regionally important open space areas such as O'Neill Regional Park, Whiting Ranch Wilderness Park and the Cleveland National Forest. Unlike the proposed project, this alternative utilizes and east/west corridor alignment similar to that shown in the Foothill/Trabuco Specific Plan. The wildlife corridor that bisects the project (called the central corridor) is a component of a three corridor concept, which together is designed primarily to accommodate small and medium size mammals and birds, but would not preclude the occasional potential movement of large mammals as well. This corridor is comprised of a minimum 400-foot wide wildlife corridor with 50 foot setbacks located on either side. The onsite wildlife corridor is proposed to utilize an at-grade crossing (400 foot) where the wildlife corridor traverses the main spine road. Due to the low level of traffic on this end of the project, the at-grade crossing is not anticipated to inhibit wildlife movement.

Aesthetics

The project has been designed to minimize impact on the existing land form. The homes have been located on the relatively level areas in a broad crescent shape flowing along the southern and eastern sides of the site, while the steep terrain of the central canyon area has been left as open space. Development is kept off of the eastern major ridgeline bordering the property.

The grading concept for this alternative reflects a contour grading approach which utilizes techniques emphasizing variations and takes advantage of the curvilinear street and lotting design, rather than repetitive uniformity. This allows the project a more natural and organic ambiance in keeping with the rolling hillside setting. Potential project aesthetic impacts are significantly mitigated by this alternative.

Cultural Scientific Resources

The substantially smaller area of site disturbance under this alternative would significantly reduce the potential impacts to cultural and scientific resources onsite as compared to the proposed project.

Recreation

Trail connections are provided under Alternative 4, which link the project to existing regional riding/hiking trails and bikeways. The project proposed a trail staging area, ridgetop park and significant dedicated natural open space. The proposed Trail Staging Area provides a direct link to the regional trail located on El Toro Road and the other proposed recreation features (ridgetop park and old ranch house site). Recreation impacts under this alternative would therefore be reduced in comparison to the proposed project.

Hazards

The project site is located in a designated very high fire risk area. All residential development onsite is potentially at risk in a fire event. Due to the proximity of the development to El Toro Road, as well as the secondary entry road into the site, emergency access is significantly improved by this alternative, as compared to the proposed project.

Public Services

Given the reduced residential density of this alternative, potential impacts to public services and utilities would be significantly reduced as compared to the proposed project.

Public Utilities

Given the reduced residential density of this alternative, potential impacts to public utilities would be significantly reduced as compared to the proposed project.

6.5 ALTERNATIVE 5 - CLUSTER/REDUCED DEVELOPMENT FOOTPRINT -318 SFD

This alternative proposes the construction of 178 attached condominium units located on the western half of the site and 140 single family units on 4,000 square foot lots located along the eastern ridgeline. Alternative No. 5 is summarized in Table 43.

Table 43
ALTERNATIVE NO. 5 LAND USE SUMMARY

Land Use	Area	% of Site
Single Family Residential	16.9 ac	8%
Multi Family Residential	39.0 ac	18%
Streets	11.1 ac	5%
Manufactured Slope	43.5 ac	19%
Natural Open Space	111.7 ac	50%
Total	**222.2 ac**	**100%**

Primary access would be provided from a single main road traversing the site and ending in a cul-de-sac near the northeast project boundary. Secondary site access will be provide from Valley Vista Way through Hidden Ridge near the southwest corner of the subject property. Approximately 105 acres will be directly impacted by site development with conventional grading volume estimated to be 1.5 million cu. yds. 5.0 million cu. yds. of remedial grading would be required under this alternative. Approximately 50% of the site will be retained in natural open space. Alternative 5 is shown in Exhibit 69. Total open space is approximately 60% of the site.

Financial analysis prepared for this project indicates that this alternative would operate at an annual deficit after including fees associated with the Orange County General Fund; County Road Fund; County Library District; and the Harbor, Beaches, and Parks Department.

Land Use

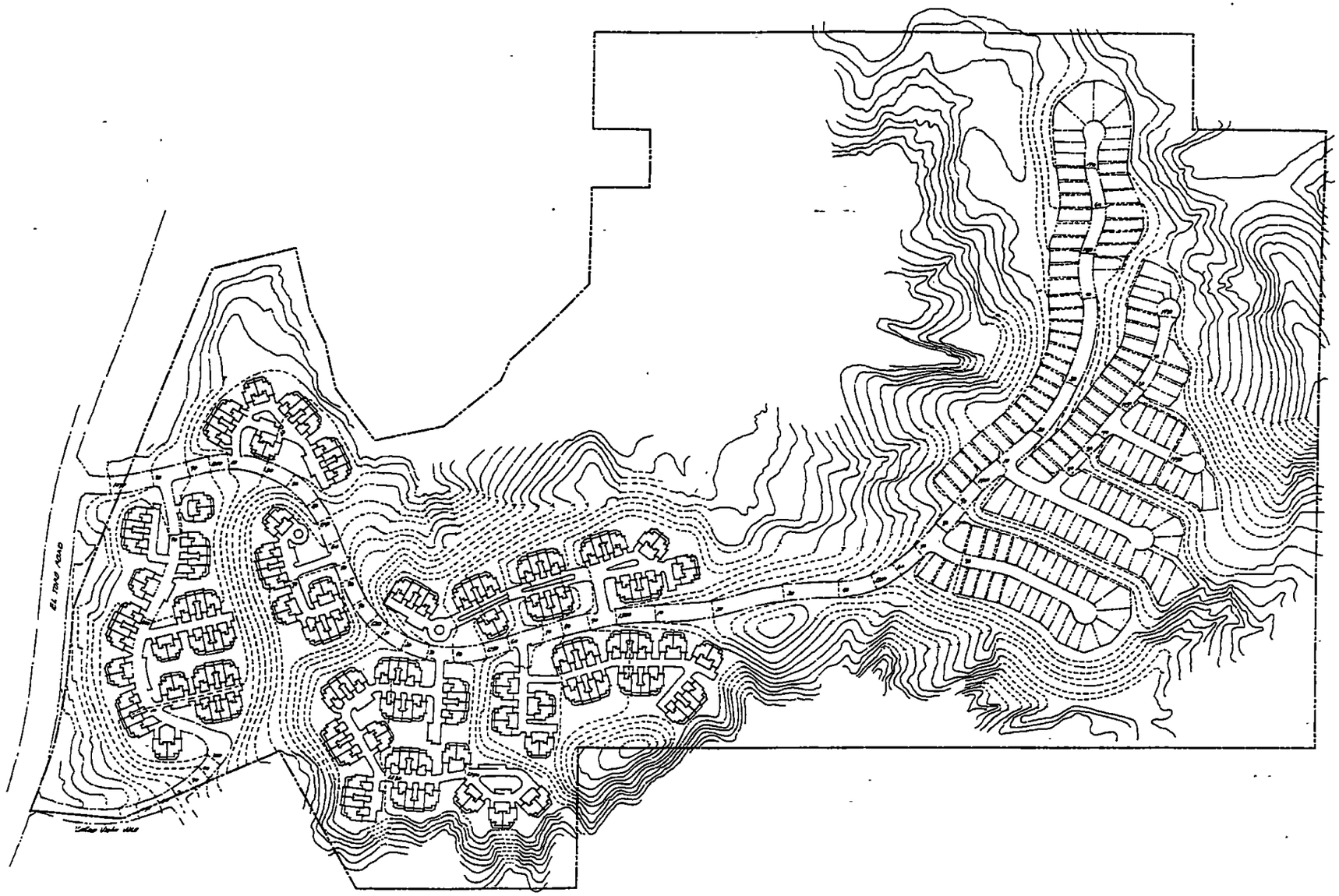
The proposed condominium units will be contained in either two- or four-plex structures which tend to create a more massive appearance than typical single family residences. Development of attached residential units would be more urban in scale and appearance; however, the much smaller development footprint associated with this alternative may be less in conflict with FTSP rural preservation goals than the proposed project. Moreover, by providing a greater variety of housing types and price ranges, this alternative better meets the housing goals of the General Plan.

Soils and Geology

The anticipated grading volumes and area of disturbance associated with this Alternative 5 are substantially less as compared to the currently proposed project (6.5 millions of cubic yards versus 11.5 millions of cubic yards). Similarly, soil, topographical and geological impacts are reduced commensurately.

Water/Hydrology

Water and hydrological impacts are anticipated to be substantially less than the proposed project,



SADDLEBACK MEADOWS - RECORDED TRACT MAP 10692
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT 566

URBAN VISION

County of Orange P&DS
Scale: 1"=400'
Source: N/A

N

Alternative No. 5 -
Cluster/Reduced Devel. Footprint
318 MF/SF

EXHIBIT No. 69

with substantially reduced runoff volumes and urban runoff as compared to the proposed project. This reduction in urban runoff would result in fewer BMP mitigation requirements.

Transportation/Circulation

Multi-family dwelling units have a lower estimated trip generation rate than single family residences. This, combined with the significant reduction in the number of dwelling units as compared to the proposed project, is anticipated to generate substantially lower traffic volumes. In addition, the secondary access from Valley Vista Way would reduce some of the anticipated use of the primary access road and have a corresponding mitigating effect on traffic congestion at the intersection of El Toro Road and primary site access road. Overall area circulation impacts are anticipated to be substantially less than those of the proposed project.

Air Quality

Potential air quality impacts are anticipated to be significantly reduced as compared to the proposed project, based upon a lower overall trip generation rate. Reduced trip generation would result in a positive impact on SCAQMD goals.

Noise

No substantial difference in potential noise related impacts as perceived by adjacent existing noise sensitive land use would be anticipated with this alternative, as compared to the proposed project.

Biological Resources

Over 30% more open space would be provided with this alternative, resulting in a corresponding reduction in the impact on biological resources associated with site development. A 700 foot wildlife movement corridor between wilderness areas located south and west of the project site would be provided with this alternative. Conversely, no wildlife corridor is proposed under the proposed project. In addition, impacts to oak woodland would be substantially reduced under Alternative 5.

Aesthetics

Attached units create a more urban appearance to project viewsheds, and may be perceived in terms of rural preservation goals for the area as a significant adverse aesthetic impact. However, given the substantially smaller development footprint associated with Alternative 5, overall aesthetic impacts are expected to be far less obtrusive than the project currently proposed. Also, because of the greater amount of open space associated with this alternative, aesthetic impacts with regard to alteration of the site's natural topography and scenic oak woodlands are anticipated to be substantially reduced in comparison to the proposed project.

Cultural/Scientific Resources

Potential impacts to onsite cultural and scientific resources would be greatly reduced in comparison

to the proposed project

Recreation

This alternative shifts site development and associated remedial grading further west directly adjacent to the west property line, eliminating the ability for the project to provide connections to the regional riding, hiking and biking trail system.

Hazards

Potential fire hazard and emergency response impacts would be similar to the proposed project.

Public Services

Potential impacts to public services under this alternative would be significantly reduced as compared to the recorded tract map.

Public Utilities

Potential impacts to public utilities under this alternative would be significantly reduced as compared to the recorded tract map.

6.6 SUMMARY OF ALTERNATIVE FINDINGS

Although all the project alternatives propose different development scenarios for the subject site, their potential environmental impacts can be generally characterized as being less than the proposed project in almost every instance.

Of the alternatives evaluated, the Foothill-Trabuco Alternative A (Alternative 2) is considered environmentally inferior to all other alternatives. The development of 150 single-family residences on 20,000 square foot lots, as proposed under this alternative, will significantly alter site topography, remove sensitive biological resources, and change project site viewsheds much in the same way as the currently proposed project.

Having a somewhat less significant environmental impact is the proposed Cluster/Reduced Development Footprint (Alternative 5) which proposes the development of 178 attached condominium units and 140 single family residences on approximately 105 acres. This alternative retains a much larger percentage of open space as compared to the current project and consequently, topographical, biological, and geological impacts are substantially reduced. While aesthetic impacts may be perceived by some as being more adverse due to the more urban appearance of this alternative, the much smaller development footprint will likely result in aesthetic, and other impacts of substantially less magnitude.

The environmentally superior alternative is the No Project/No Development Alternative. CEQA requires that if the No Project Alternative is environmentally superior, the next least impacting

alternative be identified.

The environmentally superior alternative (not including the No Project Alternative) in nearly all categories is the Foothill-Trabuco Specific Plan Alternative B which proposes development of 100 single family residences on only the western most 31.7 acres of the site (Alternative 3). Associated environmental impacts of site development are significantly reduced with this alternative, primarily due to the fact that the majority of the site (190.53 acres) will be retained in natural open space.

An evaluation of alternative findings is shown in Table 44.

Table 44
ALTERNATIVE FINDINGS SUMMARY

Factor	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5
Attain Project Objectives	No	No	Yes	Yes	Yes
Positive Fiscal Impact	N/A	Yes	No	Yes	No
REDUCE OR ELIMINATE IMPACTS AS COMPARED TO THE PROPOSED PROJECT					
Land Use/Housing	Yes	No	Yes	Yes	No
Soils/Geology	Yes	No	Yes	Yes	Yes
Water/Hydrology	Yes	No	Yes	Yes	Yes
Transportation/Circulation	Yes	No	Yes	Yes	Yes
Air Quality	Yes	No	Yes	Yes	Yes
Noise	Yes	No	Yes	Yes	Yes
Biological Resources	Yes	Yes	Yes	Yes	Yes
Aesthetics	Yes	No	Yes	Yes	Yes
Cultural Scientific Resources	Yes	No	Yes	Yes	Yes
Recreation	Yes	No	Yes	Yes	No
Hazards	Yes	No	Yes	Yes	Yes
Public Services	Yes	Yes	Yes	Yes	No
Utilities and Service Systems	Yes	Yes	Yes	Yes	No

7.0 INVENTORY OF MITIGATION MEASURES

This section lists the Project Design Features (PDFs), Standard Conditions, and additional mitigation measures, as included in Section 4.0. The mitigation measures are numbered according to the specific impacts to which they pertain; for some impacts, there are no additional measures. Therefore, the numbering of mitigation measures and some PDFs is not always sequential.

LAND USE

Standard County Conditions and Mitigation Measures

SC 1-1 Prior to the issuance of any building permits for residential construction, the developer shall comply with Board of Supervisors Resolution 82-1368 (Buyer Notification Program) which requires the developer to prepare a map denoting the existing and proposed land uses, arterial highways, and public facilities within the surrounding area for the approval of the Manager, PDS/Current Planning Services Division. The map content, display, and distribution shall be in accordance with the Buyer Notification Program guidelines approved by the Board of Supervisors and available at the Development Processing Center.

SC 1-2 Prior to the issuance of any certificates of use and occupancy, the developer shall provide evidence to the Manager, PDS/Building Inspection Services Division, that the Department of Real Estate has been notified that the project area is within the boundaries of a Community Facilities District (CFD), and will be subject to special taxes for public facilities and/or services.

SOILS AND GEOLOGY

Project Design Features

PDF 2-1 A comprehensive remedial grading mitigation plan has been designed to stabilize the project site, in accordance with OCPDS requirements. The plan is depicted in Exhibit 19, included in Appendix D and proposes measures including shear keys, buttresses, removals/recompaction to reduce hazards associated with landslides, erosion and subsidence.

Standard County Conditions and Mitigation Measures

SC 2-2 Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, PDS/Subdivision and Grading Services Division for approval. The report shall include the information and be in a form as required by the Grading Manual

SC 2-3 Prior to the issuance of any grading permits, the Manager, PDS/Subdivision and Grading Services Division, shall determine if the proposed grading complies with the grading illustrated in the plans approved by the decision-maker with regard to grading concepts, slope heights, slope ratios, and pad elevations and configuration. Significant deviations shall be reviewed by the decision-maker for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised application per Orange County Zoning Code Section 7-9-139 and 7-9-150.

SC 2-4 Prior to the issuance of the first grading permit, for projects located immediately adjacent to or including portions of regional parks, significant open space corridors, or other environmentally sensitive areas, the project proponent shall provide evidence acceptable to the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division, that graded areas will be compatible with natural land characteristics of the adjacent open space areas including techniques to enhance a smooth and gradual transition, urban edge treatment plans and incorporating view enhancement through architectural and design techniques.

SC 2-5 Prior to the issuance of any grading permit, offsite grading and/or drainage shall be conducted in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-6 Prior to the issuance of a grading permit, substantial compliance with the following shall be certified by a registered engineer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

- Fill soils shall be placed in layers that are less than 8 inches thick and moisture-conditioned generally 1- to 2-percent above optimum moisture content. The existing diatomaceous soils should be moisture-conditioned to 125-percent of optimum moisture content.

- For preliminary earthwork computations, the following shrinkage/bulking factors are recommended for the onsite material (these do not include handling losses): Bedrock - 5% bulking; slopewash - 5% shrinkage; and Other Soils - 15% shrinkage. Grading plans shall include an area where finish grades can be raised or lowered to accommodate changes in actual material quantities.

- Dewatering shall be achieved using sumps and pumps located strategically within the excavated area. However, the excavation shall be carefully observed; if the conditions warrant, supplementary dewatering provisions shall be made. It is the responsibility of the contractor to provide an adequate dewatering system during construction.

Seismic

SC 2-7 Conformance with the Uniform Building Code and Orange County codes will insure that seismic considerations are incorporated into the structural designs All recommendations of the geotechnical report shall be incorporated and utilized in the final construction plans for the parcels in a manner meeting the approval of the Manager, PDS/Building Permit Services Division. Larger buildings, structures with extraordinary architectural configurations, or those of tilt-up construction may require seismic analysis.

SC 2-8 The seismic exposure of the site shall be considered in the design of the proposed structures in a manner meeting the approval of the Manager, Building Permit Servicies Division.

SC 2-9 Geologic inspections shall be required during site grading for each parcel to confirm the absence of major faults in the local area in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-10 Prior to the issuance of any grading permits, if review of the grading plan for this property by the Manager, PDS/Subdivision and Grading Services Division, indicates significant deviation from the proposed grading illustrated on the approved tentative tract map, specifically with regard to slope heights, slope ratios, and pad elevations and configuration, the plan shall be reviewed by the Subdivision Committee for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised tentative tract map; or, if a final tract/parcel map has been recorded, a new tentative tract/parcel map or a site development permit application per Orange County Zoning Code Section 7-9-139 and 7-9-150. Additionally, a new environmental assessment and determination is required.

SC 2-11 Prior to the issuance of any grading permit, if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the affected property owners for offsite grading and/or drainage. The owner/applicant shall record said letters of consent for offsite drainage and/or cross-lot drainage prior to recordation of the tract/parcel map or prior to the issuance of any grading permit, whichever comes first.

SC 2-12 Prior to the issuance of any preliminary grading permits, the subdivider shall request that the Vector Control District initiate the survey process of the tract/parcel map site to determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-13 Prior to issuance of grading permits, a Water Quality Management Plan (WQMP) shall be submitted to and approved by the Manager, PDS/Subdivision and Grading

Services Division. The WQMP shall identify, at a minimum, the application and incorporation of those routine structural and non-structural BMPs outlined in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix G detailing implementation of BMPs not dependent on specific land uses, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-14 Prior to the issuance of any grading or building permits, whichever comes first, the applicant shall provide, in accordance with criteria supply by EMA, a "Hazardous Materials Assessment" and a "Disclosure Statement" covering the property (both fee and easement) which will be offered for dedication to the County of Orange, for review and approval by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Monitoring Programs Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

Grading

AM 2-15 Multiple cuts and fills (2.6 million cubic yards) to achieve planned elevations and profiles, and associated access roadways shall be required.

AM 2-16 Remedial grading (8.9 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills shall be required. Back cut failure guidelines shall be provided to the Grading Services Division prior to issuance of grading permits.

AM 2-17 Removal (clean out) of all or major portions of the graben materials and softer alluvium and colluvium under most of the variable thickness fills shall be required.

AM 2-18 Installation of appropriate subdrain systems within natural drainage courses and within stability fills prior to fill placement shall be required.

AM 2-19 Adequate foundation and slab subgrade conditioning for the proposed development, including overexcavation, capping and measures related to expansive soils shall be required.

AM 2-20 Achieving suitable surface gradients to preclude ponding anywhere onsite and to control water run-off via paved/closed drainage devices shall be required.

Compaction

AM 2-21 Wherever structural fills are to be placed, the upper 6 to 8 inches of the exposed

subgrade (after stripping and/or overexcavation/clean-out) shall first be scarified and reworked. In general, the dry density of the in-situ (native) material shall be at least 85 percent of maximum. In the event that lower densities are determined by field testing to exist, the depth of overexcavation will be determined onsite, given due consideration to the geology of the exposed material, as well as its relative location. It is at present expected that typical depths of overexcavation will be on the order of 4 to 5 feet

AM 2-22 Fill shall be placed in lifts of 6 to 8 inches (loose) in thickness. Rocks exceeding 4 inches in maximum dimension are best not incorporated within the upper fill zone (say 3 feet) where foundations and most utility systems are expected to be housed.

AM 2-23 In all fill areas where active gradients are steeper than 5:1 (horizontal:vertical), those surfaces shall be prepared to receive fill by excavating standard keyways and benches in a stair-step configuration.

AM 2-24 Any loosening of reworked or in-place (native material, consequent to weathering and/or passage of construction traffic, shall be made competent.

AM 2-25 Temporary fills, typically associated with access ramps built to accommodate grading equipment shall be subject to removal when their use is discontinued.

AM 2-26 The depths of excavation shall be subject to onsite monitoring by the Soil Engineer, normally during the actual removal operations. Any surface or subsurface obstructions, or questionable material encountered during grading, shall be brought immediately to the attention of the Soil Engineer, for his determination as to proper exposure, removal and/or processing as directed.

Material Selection

AM 2-27 After the site has been stripped of any debris, vegetation and organic soils, such exposed onsite shall be considered satisfactory for reuse in the construction of onsite fills, provided the organic content does not exceed 3% by volume. It is recommended that highly expansive soils not be placed within the upper 4 to 5 feet thick zone underlying final pad and street grades. More importantly, no such soil is to be placed (as backfill)within a horizontal distance equal to the wall height immediately behind retaining walls.

AM 2-28 Any objectionable material, as determined by the Soil Engineer, shall be subject to relocation in deeper fill areas or removal offsite.

AM 2-29 All borrow sites shall be approved by the Soil Engineer/Geologist prior to onsite delivery. This will permit the timely allocation of such available materials for use on the project site.

Compaction Requirements

AM 2-30 Reworking/compaction shall include water addition or drying-out as needed, to bring the soils close to their optimum moisture content. All such reworked soils, placed as structural fills, shall be densified to achieve at least 90 percent relative compaction with reference to the laboratory compaction standard. The optimum moisture content and maximum dry density, for each identified soil type, will be determined in the laboratory in accordance with ASTM Test Designation D1557.

Shrinkage/Subsidence

AM 2-31 For preliminary earthwork computations, an approximate (overall) shrinkage factor of 12 percent shall be required, for the existing site soils. The above value does not include allowance for stripping nor handling losses.

AM 2-32 Subsidence shall be assumed as 3/4 to 1-1/2 inches for grading design purposes.

Excavating Conditions

AM 2-33 Excavation of onsite soils shall be accomplished with standard heavy duty earthmoving or trenching equipment. Some hard cemented sandstone beds were encountered during the field exploration on portions of the site and some minor, isolated blasting may be required to remove these hard materials.

AM 2-34 Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water (seepage) is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher site elevations as well as in cuts made late in the year. All nuisance water shall be accommodated in accordance with County requirements.

Expansion Potential

AM 2-35 Onsite materials are considered to be moderately expansive, generally. Soils of high and low expansivity are expected to comprise less than 25% of the overall pad areas. The expansivity of the actual soils placed within structural areas shall be verified during grading, prior to construction.

Utility Trenching

AM 2-36 The typical walls of temporary construction trenches shall stand nearly vertical, with only minor sloughing, provided the total depth does not exceed 4 to 5 feet. Shoring of excavation walls and/of flattening of side slopes may be required, if greater depths are necessary.

AM 2-37 Trenches shall be located so as not to impair the bearing capacity nor settlement under planned foundations. As a guide, trenches shall be aligned perpendicular to foundations, and the Structural Engineer so informed to modify the foundation at the crossing, as needed. All other trenches shall observe a lateral off-set equal to their total depth.

AM 2-38 Existing soils shall be utilized for trench backfill, provided they are essentially free of organic materials and oversized materials (rock, gravel, etc., in excess of 1-inch maximum size, unless within an approved soil matrix). Alternately, select granular materials (sand equivalent of 30 or greater) may be imported as backfill. Compaction should be accomplished entirely by mechanical means, subject to onsite assessment during pipeline installation.

Surface Drainage

AM 2-39 Positive surface gradients shall be provided away from slope tops per approved grading plans and adjacent to the future buildings, so as to direct surface water run-off away from structural areas and toward suitable discharge facilities.

Sulphate Content

AM 2-40 The soils sulphate content shall be ascertained during the concluding stages of rough grading, and the type of cement to be used determined at that time.

Grading Control

AM 2-41 All grading and earthwork shall be subject to on-going testing and observation by the applicants geotechnical consultant, including engineers, engineering geologists and/or technicians.

Slabs-on-Grade

AM 2-42 Concrete slabs shall be founded on approved (reworked) in-place soils and/or on properly compacted fill. The subgrade shall be proof-rolled just prior to construction to provide a firm, unyielding surface, especially if the surface has been disturbed by the passage of time and/or exposure to construction traffic.

AM 2-43 Floor slabs shall be at least 4 inches thick. The Finished Floor Level should be at least 6 inches above highest adjacent exterior grade. Joints shall be provided.

AM 2-44 If flooring that would be affected by moisture is to be used, the slab shall be underlain by 2 inches of sand, with a 10-mil plastic sheet between the sand and the subgrade.

AM 2-45 Precautions in respect of expansive soils shall be taken.

Foundations

AM 2-46 The proposed structures shall be supported on conventional spread footings, supported into approved compacted fill and/or reworked native material.

Long Term Settlements

AM 2-47 The grading concept, as presently proposed, includes several areas where deep fill will result, exceeding 50 feet in depth. These soil masses may experience significant settlements, with time, of 4 to 6 inches or more. Such downward movements can be tolerated by most improvements, provided these occur at a reasonably uniform rate and rather evenly over a well distributed area. However, the degrees and rates of settlement shall be analyzed during the final design phase.

Phasing of Earthwork

AM 2-48 Unstable Ground
Initial stability evaluations have determined that several natural slopes subject to grading are inherently unstable. Removals, therefore, shall be planned and carried out with care in order to minimize deep-seated, in-construction failures. Typically, about 10 percent of back cuts for buttresses will fail during grading. Allowances for schedule and budget contingencies should be made.

AM 2-49 Required Clean-Out Work
Prior to improving the gross stability of hillsides, clean-out work will be necessary along their lowest (toe) elevations. Whereas such selective removals are essential prior to placement of additional fill, this process can trigger undesired slippage. Therefore, selective unloading of the slide mass shall be required before stabilization can effectively begin.

AM 2-50 Slide Unloading
Where existing slope faces are marginally safe in their present condition, the higher portions of each such slide shall require removals toward the top, prior to clean-out, and subsequent loading at the toe.

WATER/HYDROLOGY

Project Design Features

PDF 3-1 A master drainage concept has been incorporated into the project design to mitigate hydrology impacts to existing OCPDS requirements and standards. The master drainage concept, shown in Exhibit 22, and contained in its entirety in Appendix L of this EIR, proposes a series of storm drains, catch basins, inlet/outlet structures, energy dissipators and slope drains to control project drainage.

Standard County Conditions and Mitigation Measures

SC 3-2 Prior to the issuance of any grading permits the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a. Prepare a drainage study determining the effect the proposed development and associated drainage patterns will have on existing drainage facilities.

b. Mitigate either by on-site retardation or by providing improvements appropriately to impacted existing drainage facilities.

SC 3-3 Prior to the issuance of any grading permits the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

a. Design and convey construction funds for surface drainage improvements; and

b. Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and

c. Dedicate the associated easements to the County of Orange, if determined necessary.

SC 3-4 Prior to the issuance of any certificates of use and occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, PF&R/Construction Division.

SC 3-5 Prior to the issuance of any grading permit, and if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations.

SC 3-6 Prior to issuance of any building permits, the applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division, including payment of fees and the construction of the necessary facilities.

SC 3-7 Potential for the proposed project to impact the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

Water Quality

SC 3-8 Prior to issuance of building permits, or grading permits, whichever come first, permit

applicant shall submit for approval of the Manager, PDS/Subdivision and Grading Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. This WQMP shall identify at a minimum the routine structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of the BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, lessee, etc.); and, shall reference the location(s) of structural BMPs.

SC 3-9 Prior to the issuance of precise grading permits or building permits, whichever comes first, the applicant shall submit and obtain approval from the Manager, PDS/Subdivision and Grading Services Division, of a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine, structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix which details implementation of BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association shall reference the location(s) of structural BMPs.

Flood Plain Elevation

SC 3-10 Prior to issuance of any grading permits, the applicant shall submit evidence to the Manager, PDS/Subdivision and Grading Services Division, that the applicant has obtained coverage under the NPDES statewide General Stormwater Permit from the State Water Resources Control Board.

Easements

SC 3-11 Prior to the issuance of any certificates of use and occupancy, the applicant shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange or the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting any of said easements, the subdivider shall furnish a copy of the proposed easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval. Further, a copy of the approved easement shall be furnished to the Manager, Building Inspection Services, prior to the issuance of any certificate of use and occupancy.

TRANSPORTATION/CIRCULATION

Project Design Features

Primary project access will be off of El Toro Road with an emergency access at Valley Vista Way.

PDF 4-1 The onsite circulation system is proposed as shown in Exhibit 45 to accommodate project related traffic generation, including design of the entry street as a Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The entry's cross-section shall be maintained for approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway. Secondary emergency only access will be provided via a gated connection to existing Valley Vista Way. Minimum fire access roadway width of 28 feet shall be required.

PDF 4-2 The entry street will be designed with a traffic signal and a southbound left-turn pocket and northbound right-turn lane. The applicant shall provide a cash deposit for the design and construction of the traffic signal.

PDF 4-3 All weather access to the proposed water tank shall be provided by the applicant. This access shall be designed with a minimum 28 foot width and a maximum grade of 10%.

Standard County Conditions and Mitigation Measures

SC 4-4 Prior to the issuance of any building permits, the applicant shall participate in design, construction, and/or financing of the cost of a traffic signal in the project vicinity in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-5 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Program listed below, in a manner meeting the approval of the Manager, PF&R/Programs Division.

a. Foothill Circulation Phasing Program

b. Prior to recordation of a final tract map, the subdivider shall enter into an agreement with the County of Orange for participation in a fee program for participation in a fee program (if adopted by the Board of Supervisors) for implementation of the Foothill/Eastern Transportation Corridor. Said agreement shall provide that:

1. The fee shall be $158.00 per trip end times the County standard trip end generation rate for the type of development proposed, times the number of units (footage) proposed, or the fee payable under the program, whichever is less

2. Subdivider's obligation to pay fees would arise only after the County establishes the fee program, prior to issuance of building permits.

3. Subdivider's obligation to pay the fee would be extinguished if the fee program were not established within three (3) years of the date of issuance of the first building permit for subject development.

4. Subdivider shall furnish surety bond, letter of credit, money or such other security approved by the Director, PF&RD, to assure payment of the fees related to subject development.

5. This condition shall be void if a trial court of competent jurisdiction, in a final judgement, or an appellate court, if the matter is appealed, sets aside a condition imposed by the County which was substantially the same as said condition.

c. El Toro Road

d. Santiago Canyon Road

SC 4-6 Building permit issuance shall be phased in accordance with the Foothill Circulation Phasing Plan (FCPP) Development Phasing Plan, and shall also be subject to any other Board of Supervisors approved growth management phasing plan pertaining to the timely provision of public services and facilities.

SC 4-7 Building permit issuance shall be phased in accordance with any Board of Supervisors approved Growth Management Phasing Plan pertaining to the timely provision of public services and facilities.

SC 4-8 Prior to the issuance of any grading permits, adequate sight distance shall be provided at all street intersections per Standard Plan 1117, in a manner meeting the approval of the Manager, PF&R/Programs Division. This includes any necessary revisions to the plan such as removing slopes or other encroachments from the limited use area.

SC 4-9 Prior to the issuance of any certificates of use and occupancy, the developer shall construct the approved internal circulation improvements in a manner meeting the approval of the Manager, PF&R/Construction Division. Further, a copy of the approved plans shall be furnished to the Manager, Building Inspection Services, prior to the issuance of any certificates of use and occupancy.

SC 4-10 When monuments exist which control the location of subdivisions, streets or highways, or provide survey control, the monuments shall be located and referenced prior to any street construction or relocation, and shall be reset after construction as required by Section 8771 of the Business and Professions Code, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-11 Prior to issuance of a building permit, the applicant shall pay a cash fair share contribution for the design and construction of improving Santiago Canyon Road

from Live Oak Canyon Road to Jamboree Road, in a manner meeting the approval of the Manger, Traffic Engineering In addition, the applicant shall participate in the Santiago Canyon Road Safety Improvement Program.

SC 4-12 Prior to issuance of a building permit, the applicant shall design and construct roadway improvements for El Toro Road including a deceleration lane and a left turn pocket into the project entrance based on a 60 mph minimum design speed in a manner meeting the approval of the Manager, PF&R/Programs Division.

SC 4-13 Prior to issuance of a building permit, the applicant shall provide a cash deposit for the difference in cost of designing and constructing the roadway improvements proposed with the project as compared to the costs associated with the ultimate configuration of El Toro Road, as determined by PDS/Environmental & Project Planning ServicesDivision, all in a manner meeting the approval of the Manager, PF&R/Programs Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner meeting the approval of the Manager, Transportation Planning.

AM 4-~~15~~ 14 El Toro Road lane improvements needed at the Project Entrance to serve Year 2000 and 2020 conditions shall be completed in conjunction with development.

AM 4-~~16~~ 15 Traffic signing/striping shall be implemented in conjunction with detailed construction plans for the project. Verification of adequate parking shall be analyzed for the project site in conjunction with approval of the site plan.

AM 4-17 The project shall participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program (FCPP), El Toro Road Fee Program and the Santiago Road Fee Program.

Both existing traffic patterns and SCTM traffic projections for Years 2000 and 2020 indicate the attraction of Glenn Ranch Road, Portola Parkway, and the Foothill Transportation Corridor (SR-241) for increased traffic volumes in the project study area. North of the Foothill Transportation Corridor, El Toro Road can accommodate projected traffic volumes with the proposed project on four travel lanes divided by a raised or striped median.

AIR QUALITY

Project Design Features

No air quality PDF's have been proposed

Standard Conditions and Mitigation Measures

SC 5-1 Grading and excavation shall be halted during periods of high winds meeting the approval of the Manager, EA, Subdivision and Grading Services Division. According to AQP Measure F-4, high winds are defined as 25 mph or greater. This level occurs only under unusually extreme conditions, such as Santa Ana wind conditions. Notations in the above format, included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

SC 5-2 Prior to issuance of grading permits, the project applicant shall demonstrate measures to ensure compliance with SCAQMD Rule 403, and shall identify the dust suppression measures, such as regular watering, which shall be implemented to reduce emissions during construction and grading in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. This will help reduce the short-term impacts from particles which could result in nuisances that are prohibited by Rule 403.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations:

AM 5-3 As previously noted, no credit was taken for mobile source emissions reductions either from technology improvements (reformulated gasoline, alternative fuels and/or electric cars), nor from transportation behavior modification in response to programs such as South Coast AQMD Reg. XV or by the trip reduction programs. These programs will mitigate the identified significant growth-related cumulative air quality impact to some extent. Because the projected effectiveness of such programs and because the time frame for technology development is uncertain, the degree of possible mitigation can not be quantified with certainty. Similarly, the buildout date for Saddleback Meadows will depend on economic forces that can not be predicted. The following discussion structures the recommended mitigation as comprehensively as possible, but quantification of mitigation effectiveness is speculative at currently known levels of detail.

AM 5-4 Contractors will comply with SCAQMD Rule 403.

AM 5-5 Contractors will utilize measures to prevent dirt from being tracked, washed, blown or otherwise conveyed onto paved roadways, and will wash or sweep the construction access points at El Toro Road on a routine basis on a frequency specified by the County of Orange as well as whenever dirt is visible more than 50 feet from the access point independent of the routine clean-up schedule.

AM 5-6 Trucks hauling dirt on public roads to and from the site will be covered or will

maintain a six inch differential between the maximum height of any hauled material and the top of the haul trailer. Haul truck drivers will water the load prior to leaving the site to prevent soil loss during transport.

AM 5-7 Construction management procedures required by the County of Orange and other jurisdictions shall be implemented. Contractor personnel responsible for supervision and the appropriate actions to be taken for the following measures shall be identified:

- Cessation of activities during a Stage-2 smog episode. Call 1-800-242-4022 for the daily forecast.
- Truck routes and schedules for receipt of materials shall be coordinated with County of Orange staff.
- Where feasible, on-road vehicles and off-road equipment shall be turned off and subsequently restarted if the anticipated duration of idling is expected to exceed five (5) minutes.

AM 5-8 Graded surfaces used for off-road parking, materials lay-down or awaiting future construction shall be stabilized for dust control as needed. Frequently accessed unpaved areas shall be paved as early as possible to minimize dirt trackout to public rights of way.

AM 5-9 Equipment will be maintained in proper tune to prevent visible soot from reducing light transmission through the exhaust stack exit by more than 20 percent for more than three (3) minutes per hour and use low-sulfur fuel as required by SCAQMD regulation

Flag persons and appropriate traffic control devices will be used as needed to minimize construction activity interference with off-site traffic.

AM 5-11 Implementation of the above measures is expected to maintain construction activity air quality impacts at less than significant levels.

Operational Activities:

- Traffic flow at the project access will be maintained at acceptable levels of service through mitigation measures identified in the project traffic study.
- 220v electric power for future use to charge electric-powered vehicles will be made available in homeowner garages

AM 5-12 Emissions calculations and the corresponding ambient air quality impact assessment for project-related construction and Saddleback Meadows operations presumed compliance with SCAQMD rules regarding dust control. The potential for additional

emissions reduction beyond the mandatory requirements of existing rules and regulations was evaluated based on Appendix 11 of the SCAQMD Air Quality Handbook which quantifies reduction potential of a variety of project construction and operation emissions control measures.

Dust emissions can be controlled from their 50 percent control assumed for Rule 403 compliance by an additional 50-80 percent of the uncontrolled fraction. The net effective dust control level is therefore 75-90 percent.

Unless the entire project site is under simultaneous massive grading, attaining the optimum level of dust control will maintain dust impacts at less than significant levels.

Operational emissions reduction from mobile sources of 5 percent of their non-TCM implementation level can not reduce the substantial emission level to less than the SCAQMD advisory level significance thresholds. A number of secondary considerations were identified, however, that would either allow for a finding of an individually less than significant air quality impact.

NOISE

Project Design Features

No PDF mitigation measures are proposed.

Standard County Conditions and Mitigation Measures

SC 6-1 All residential lots and dwellings shall be sound attenuated against present and projected noise which shall be the sum of all noise impacting the project so as not to exceed a composite interior standard of 45 dBA CNEL all habitable rooms and a source specific exterior standard of 65 DBA CNEL in outdoor living areas. Evidence prepared by a County-certified acoustical consultant, that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, shall be submitted as follows:

a. Prior to the issuance of grading permits, as determined by the Manager, PDS/ Building Permit Services Division, the applicant shall submit an acoustical analysis report to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy "B" below.

b. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior

noise standards to the Manager, PDS/Building Permits Services Division, for approval along with satisfactory evidenced which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

c. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 6-2 Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permits Services Division, an acoustical analysis report shall be submitted to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy SC 6-3 below.

SC 6-3 Prior to the issuance of any building permits for residential construction, an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards shall be submitted for review and approval to the Manager, PDS/Building Permits Services Division, along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

SC 6-4 Prior to the issuance of any building permits, all freestanding acoustical barriers must be shown on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division

SC 6-5 Prior to the issuance of any certificates of use and occupancy, the developer shall produce evidence acceptable to the Manager, PDS/Building Inspection Services Division, that information stating this property is subject to the overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station) has been provided to the Department of Real Estate of the State of California for inclusion into the Final Subdivision Public Report.

SC 6-6 Prior to the issuance of any certificates of use and occupancy, the applicant shall post aircraft noise impact notification signs in all sales offices associated with new residential development located within an aircraft 63 dB CNEL contour. The number and location of said signs shall be as approved by the Manager, PDS/Building Permits Services Division.

SC 6-7 Prior to the issuance of any building permit, an aviation easement over this property shall be offered for dedication to the County of Orange in a manner meeting the

approval of the Manager, PDS/Building Permits Services Division.

SC 6-8 Prior to the sale, lease or rental of any structure or portion thereof, the applicant/owner shall provide to each prospective purchaser, lessee, or tenant a notice and statement of acknowledgment that the property is subject to overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station). The form and method of distribution of said notice and statement of acknowledgment shall be as approved by the Manager, PDS/Building Permits Services Division.

A. Prior to the issuance of any grading permits, the proponent shall produce evidence acceptable to the Manager, Building Permit, that:

(1) all construction vehicles or equipment, fixed or mobile, operated within 1000 feet of a dwelling shall be equipped with properly operating and maintained mufflers.
(2) All operations shall comply with Orange County "Codified Ordinance Division 6 (Noise Control); and
(3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this requirement.

SC 6-9 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that excavation, grading and other construction-related activities shall be restricted to daytime hours as promulgated in the County's Codified Ordinance Division 6 (Noise Control).

SC 6-10 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that all construction equipment, stationary or mobile, shall be equipped with properly operating and maintained mufflers.

SC 6-11 Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division, that:

a) All construction vehicles or equipment, fixed or mobile, operated within 1,000-feet of a dwelling shall be equipped with properly operating and maintained mufflers.

b) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).

c) Stockpiling and/or vehicle staging areas shall be located as far as practicable

from dwellings.

Notations in the above format, appropriately identified and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

BIOLOGICAL RESOURCES

Project Resign Features

No PDFs proposed.

Standard County Conditions and Mitigation Measures

SC 7-1 Pursuant to Section 711.4 of the Fish and Game Code, the applicant shall comply with the requirements of AB 3158, prior to the filing of the Notice of Determination for the project, in a manner meeting the approval of the Manager, PDS/Environmental and Project Planning Services Division.

SC 7-2 Prior to the issuance of any grading permits, the applicant shall obtain a Streambed Alteration Agreement covering the affected water courses and wetland areas within the proposed project area from the California Department of Fish and Game. A 1603 Streambed Application has been submitted to CDFG. All Streambed alteration activities shall be carried out in accord with the requirements of an approved Streambed Alteration Agreement.

SC 7-3 Prior to the issuance of any grading permits, the applicant shall obtain the necessary individual or nationwide permit (pursuant to Section 404 of the Federal Clean Water Act) covering all affected wetland areas from the U.S. Army Corps of Engineers, Los Angeles District. All wetland areas shall be subject to the specifications of the 404 permit as determined by the Corps of Engineers. A copy of the 404 permit shall be submitted with the first grading permit application for the proposed project to the Manager, PDS/Subdivision and Grading Services Division.

SC 7-4 Prior to the issuance of a grading permit, as required by participation in the Natural Community Conservation Planning/Coastal Sage Scrub (NCCP) agreement signed by the County on May 1, 1992, the project applicant shall provide an accounting summary, in acres or portions thereof, of coastal sage scrub scheduled to be impacted by removal through grading in a manner meeting the approval of the Administrator, Planning & Zoning. (See Section 4.7.3.)

SC 7-5 Prior to the issuance of a grading permit, the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the U.S. Fish and Wildlife Service, in a manner meeting the approval of the Administrator, Planning & Zoning and Manager, PDS/Grading Services

Division, in consultation with the Administrator, Planning & Zoning.

SC 7-6 Notwithstanding the tentative map, no grading shall occur within the Natural Community Conservation Plan (NCCP) enrolled area except as in a manner meeting the approval of the Administrator, Planning and Zoning.

SC 7-7 Prior to the issuance of any grading permit, approval of any activity that involves removal of any native vegetation from subject site including clearing, grubbing, mowing, discing, trenching, grading, fuel modification, or other related construction-related activities, the applicant shall obtain written proof from the U.S. Fish and Wildlife Service that said activity complies with the Federal Endangered Species Act. This evidence shall be submitted to the Manager, PDS/Subdivision and Grading Services Division, for review and approval, in consultation with the Administrator, Planning and Zoning.

SC 7-8 Prior to the issuance of grading permits the applicant shall submit a landscape and tree preservation plan to the Manager, PF&R/Harbors Beaches and Parks Division, for review and approval in accordance with the following guidelines:

A. To the maximum extent feasible, all existing native and exotic trees and other significant vegetation shall be preserved in conjunction with any development activity.

B. A tree preservation plan shall be prepared by a landscape architect for all development projects which identifies the location, size and species of all trees having a trunk diameter of 5 inches or greater (measured at four and one-half feet above ground level) and shrubs having a trunk or branch diameter of 3 inches or greater. The plan shall show which plants are proposed for removal and where transplanted and/or replacement plants will be located. Tree preservation plans shall be approved prior to issuance of grading permits, or where grading permits are not required, prior to issuance of building permits.

C. Trees removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement by a combination of 1 and 15-gallon plants at a minimum ratio of 5:1. The following sliding scale shall also be used for trees to determine if more than the minimum number of replacement trees are required.

Tree Replacement Scale

Trunk Diameter (inches) of Tree Removed At 4½ Feet Above Ground Level	Total Number of Replacement
5 to 11	5 (1-15 gal / 4-1 gal)
12 to 17	7 (1-15 gal / 6-1 gal)
18 to 23	10 (2-15 gal / 8-1 gal)
24 to 35	12 (2-15 gal / 10-1 gal

Any oak exceeding 35 inches in diameter should be preserved, transplanted or replaced in accordance with the provisions outlined in Section E of the mitigation measure. In the event that all required replacement trees will not fit on the property, increase in container size will be considered in conjunction with reductions in replacement quality.

D. Significant shrubs removed in accordance with an approved tree preservation plan should be replaced by a combination of transplanting to another location on the subject property and/or replacement by 5-gallon plants at a minimum ration of 3.1.

E. All other plants not specified in Guidelines C and D above that are removed in accordance with an approved tree preservation plan should be either transplanted to another location on the subject property or replaced by 15-gallon plants for trees and 5-gallon plants for shrubs at a minimum ration of 1:1. The two 35" + oak trees impacted by project implementation, will be mitigated by an enhanced replacement ratio (5-15 gal/10-1 gal) to the satisfaction of the Manager, PF&R/Harbors Beaches and Parks Division.

F. All transplanting of trees shall be performed by an experienced nursery or other landscape contractor, who shall care for the trees for at least six months after transplanting.

G. Prior to issuance of final certificates of use and occupancy, all transplanted or replacement trees and shrubs shall be installed in accordance with the tree preservation plan.

H. Oak trees shall not be subjected to increased runoff from irrigation systems, impermeable surfaces, storm drain discharge, etc.

I. Natural drainage courses and natural grades in proximity of, and providing seasonal irrigation to oak trees shall not be altered.

J. Grading, placement of fill, storage of building materials and heavy equipment,

structural development, and hardscape (e.g., roads, sidewalks, patio slabs and pool decks) shall be prohibited within the drip line (outer edge of branches) of any tree. During grading and construction operations, all trees shall be temporarily fenced off with chain link fencing to protect such areas.

K. Use of pre-emergent weed killers shall be prohibited within 10 feet of the drip line of any individual tree and within any natural drainage course which seasonally irrigates trees.

L. Use of soil sterilizers shall be prohibited because they kill everything in the soil.

SC 7-9 Specify areas/lots to be dedicated or irrevocably offered to the County in fee or easement for landscape maintenance purposes, scenic or resource preservation purposes or resource replacement shall be landscaped, equipped for irrigation, and improved in accordance with an approved plan as stated below:

a) Preliminary Plan -An agreement shall be entered into and financial security posed guaranteeing landscape improvements and the maintenance thereof based on a preliminary landscape plan showing major plant material and uses, with a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Said plan shall take into account the previously approved landscape plan for AP 95-7, the EMA Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and Specific Plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).

b) Detailed Plan - Prior to the issuance of any building permit(s), a detailed landscape plan shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Detailed plans shall show the detailed irrigation and landscaping design.

c) Installation Certification - Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, said improvements shall be installed and shall be certified by a licensed landscape architect or licensed landscape contractor, as required, as having been installed in accordance with the approved detailed plans. Said certification, including an irrigation management report for each landscape irrigation system, and any other required implementation report determined applicable, shall be furnished in writing to the Manager, PFR/Construction Division, and the Manager, PDS/Building Inspection Services Division, prior

to the issuance of any certificates of use and occupancy.

SC 7-10 Prior to the issuance of precise grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), EMA Standard Plans, area plan 95-7, scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed by the future homeowners association and be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division.

SC 7-11 Prior to the issuance of grading permits, the applicant shall provide additional evidence that the onsite coastal sage scrub habitat is not occupied by California gnatcatchers, in accordance with current USFWS protocol (7 in season/9 out of season pass surveys) to the satisfaction of the USFWS and the Administrator, Planning and Zoning. Should occupied coastal sage scrub habitat be identified onsite by the surveys consultation shall be initiated with the USFWS, and a coastal sage scrub/gnatcatcher mitigation plan shall be developed to the satisfaction of the USFWS and the Administrator, Planning and Zoning prior to the issuance of grading permits.

SC 7-12 Prior to the issuance of grading permits, the applicant shall provide appropriate measures to mitigate the project related impacts to onsite wildlife movement, to the satisfactin of the USFWS, CDFG and the Administrator, Planning and Zoning. Mitigation shall consider onsite as well as offsite mitigation options, and established fee programs.

SC 7-13 Prior to the issuance of grading permits, the applicant shall provide assurances to the satisfactin of the County NCCP coordinator and the Administrator, Planning and Zoning, that the proposed project will participate in the NCCP planning process and not preclude the finalization of the Southern Subregional reserve component of the NCCP. .

SC 7-14 Prior to the issuance of grading permits, the applicant shall prepare a relocation and establishment mitigation plan, designed to mitigate impacts to Riverside fairy shrimp/pond habitat, wetlands, and southern sycamore woodland, to the satisfaction of the Administrator, Planning and Zoning, in consultation with USFWS and CDFG. Mitigation shall consider onsite as well as offsite mitigation options, as well as, established fee programs.

Additional Mitigation Recommendations

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations in a manner acceptable to the Manager, Environmental and Project Planning Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division.

AM 7-15 The following recommendations are proposed to further minimize some of the proposed impacts.

- Where possible, bulbs of individual Catalina Mariposa Lily and Intermediate Mariposa Lily that are to be impacted shall be dug up and transplanted to a suitable habitat with similar soil, slope exposure, etc.

- Lighting within development projects adjacent to conserved habitat should be selectively placed, shielded, and directed away from that habitat. In addition, lighting from homes abutting conserved habitat should be screened with vegetation, and large spotlight-type lighting that may affect conserved habitat should be prohibited. These lighting restrictions should be incorporated into the project's CC&Rs.

AESTHETICS

Project Design Features

PDF 8-1 All public utilities shall be situated underground.

PDF 8-2 Where feasible, drainage devices (terrace drains, benches, and intervening terraces) shall be bermed and placed in swales.

PDF 8-3 Concrete drainage swales and other similar drainage infrastructure shall be tinted with an appropriate earth tone to effectively conceal them from surrounding view.

PDF 8-4 The water tank shall be bermed, landscaped and painted to blend with the surrounding environment.

Standard County Conditions and Mitigation Measures

SC 8-5 Prior to the issuance of any building permits, an agreement shall be entered into and financial security posted guaranteeing landscape improvements and the maintenance thereof based upon a detailed landscape plan showing landscape design and irrigation with a cost estimate for the landscape improvements approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches

& Parks Division. Said plan shall take into account previously approved landscape plan(s), PF&RD Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, water conservation measures contained in Board Resolutions 90-487 (Water Conservation Measures), and 90-1341 (Water Conservation Implementation Plan).

SC 8-6 Prior to the issuance of preliminary grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan(s), PF&RD Standard Plans, area plan 95-7 scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolutions 90-487 (Water Conservation Measures) and 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed and approved by Manager, PDS/Building Permits Services Division, Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PF&R/Harbors Beaches & Parks Division, and Manager, PDS/ Environmental and Projects Planning Services Division.

SC 8-7 Prior to the issuance of certificates of use and occupancy and release of financial security, applicant shall install the approved landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, as applicable, certify that it was installed in accordance with the certified plan. Said certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, shall be furnished in writing to the Manager, Building Inspection Services, prior to the issuance of any certificates of use and occupancy.

SC 8-8 Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations:

AM 8-9 Prior to issuance of any grading permit, the project proponent shall provide evidence to the Manager, PDS/Subdivision and Grading Services Division indicating that

graded areas will be compatible with natural landform characteristics to the greatest extent possible. Criteria to achieve the desired effect shall include:

a) Recontouring the existing landforms to provide a smooth and gradual transition between graded slopes and existing grade while preserving the basic topographic character of the site.

b) Variation and combination of slopes 2:1, 3:1 and 4:1 to create a more natural character wherever possible within the graded areas.

c) Attempting to balance cut and fill within the overall project area to eliminate offsite and import/export related grading operations.

d) Obscuring slope drainage structures with a variety of plant materials.

e) Preservation of visual opportunities from hillsides by providing for panoramic views from selected locations (e.g., view corridors, sensitive landscape placement).

AM 8-10 Manufactured slopes shall be replanted with vegetation native to the site to blend the new topography with existing natural on site vegetation, immediately following precise grading operations.

AM 8-11 Fuel modification areas shall be planted with fire resistant vegetation.

AM 8-12 Use of the California Sycamore or other species similar to trees currently existing onsite shall be used in appropriate common area and street landscape locations where feasible.

AM 8-13 Common area landscaping and habitat transition zones shall utilize the FTSP recommended plant palette (Appendix H) when selecting plant material.

AM 8-14 Slope landscaping shall occur as soon as feasible after grading and be maintained by the applicant until a homeowners association has been organized and assumes long term maintenance responsibility.

Light and Glare

AM 8-15 Prior to issuance of any certificate of use and/or occupancy, the potentially adverse impact of night lighting on surrounding land use shall be mitigated to the satisfaction of the Manager, PDS/Subdivision and Grading Services Division by the following measures:

a) Street lights shall only be installed at intersections and as required to insure

public safety.

b) Low intensity halogen street lamps shall be used.

c) Street lights shall be shielded to direct the light beam downward and to avoid direct glare into open space areas and adjacent property.

CULTURAL/SCIENTIFIC RESOURCES

Standard County Conditions and Mitigation Measures

Archaeology

SC 9-1 Prior to the issuance of any grading permit, a County-certified archaeologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified archaeologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PF&R/Harbors Beaches and Parks Division. A report of the literature and records search and the field survey shall be submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division. Mitigation measures may be required depending upon the recommendations of this report. This mitigation measure has been completed as part of the Draft EIR.

SC 9-2 Prior to issuance of any grading permit, a county-certified archaeologist shall be retained by the applicant to perform a subsurface test level investigation and surface collection as appropriate. The test level report evaluating the site shall include discussion of significance (depth, nature, conditions and extent of the resources), final mitigation recommendations and cost estimates and shall be approved by the Manager, PF&R/Harbors Beaches and Parks Division. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis.

SC 9-3 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained to conduct pregrade salvage excavation of the archaeological resources in the permit area. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. A final report of the salvage operation shall submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division, prior to any grading.

SC 9-4 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified archaeologist has been retained, shall be present at the pregrading conference, shall establish procedures for archaeological resource surveillance, and

shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project developer, for exploration and/or salvage. The archaeologist shall submit a follow-up report to the Manager, PF&R/Harbors Beaches and Parks Division, which shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, PF&R/Harbors Beaches and Parks Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provision of existing codes and regulations in a manner acceptable to the Manager, PF&R/Harbors Beaches and Parks Division Facilities.

AM 9-5 Prior to site grading the project site shall be examined by a qualified archeologist, all potential archeological sites identified, and surface collection and documentation of artifacts be conducted.

AM 9-6 As indicated by the project archeologist, sites warranting further study shall be disced to ascertain the extent and significance of the deposit. If the project archeologist determines that a site is potentially of cultural worth, then additional excavation in a manner determined by the project archeologist shall occur prior to further grading or construction activities at these locations.

AM 9-7 During initial grading, the project site shall be monitored by a qualified archeologist who shall have the authority to order a temporary cessation of grading activities and take appropriate action to preserve any culturally significant materials if uncovered.

AM 9-8 If human remains of Native American origin are encountered during the project the County Coroner's Office and the Native American Heritage Commission shall be contacted for preservation and protection of the remains.

Paleontology

SC 9-9 Prior to the issuance of any grading permit, a County-certified paleontologist shall be retained by the applicant to complete a literature and records search for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified paleontologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, PF&R/Harbors Beaches and Parks Division. A report of the literature and records

search and field survey shall be submitted to and approved by the Manager, PF&R/Harbors Beaches and Parks Division, Future mitigation shall depend upon the recommendations of the report. This mitigation measure has been completed.

SC 9-10 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained by the applicant to conduct pregrade salvage and prepare a catalogue of the exposed resources. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PF&R/Harbors Beaches and Parks Division, for review and approval, which shall include methodology, an analysis of artifacts found, a catalogue of artifacts, and their present repository. This mitigation measure has been completed.

SC 9-11 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, PDS/Subdivision and Grading Services Division, that a County-certified paleontologist has been retained to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pregrading conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If major paleontological resources are discovered, the paleontologist shall determine appropriate actions, in cooperation with the project developer, which ensure proper exploration and/or salvage. Excavated finds shall be offered to the County of Orange, or its designee, on a first-refusal basis. The paleontologist shall submit a follow-up report for approval by the Manager, PF&R/Harbors Beaches and Parks Division, which shall include the period of inspection, a catalogue and analysis of the fossils found, and present repository of the fossils. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the Manager, PF&R/Harbors Beaches and Parks Division.

Additional Mitigation Measures

AM 9-12 A qualified paleontologist shall be retained to perform periodic inspections of excavations and, if necessary, salvage exposed fossils. The frequency of inspections will depend on the rate of excavation, the materials being excavated, and the abundance of fossils. Initially, monitoring shall be on a full time basis in all excavations because of the high potential for the discovery of fossils in all the rock units present in the study area.

AM 9-13 The paleontologist shall be allowed to divert or direct grading in the area of an exposed fossil to facilitate evaluation and if necessary, salvage.

AM 9-14 To recover small fossils, it will be necessary to collect sediment samples from

promising horizons discovered during grading monitoring for processing through fine mesh screens. Once the samples have been screened, they will be examined microscopically for small fossils.

AM 9-15 Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository.

AM 9-16 All fossils collected should be donated the County of Orange's designated repository.

AM 9-17 A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project.

Historical Resources

SC 9-18 Prior to issuance of a grading permit, project applicant shall provide written evidence to Manager, PF&R/Harbors Beaches and Parks Division that an historian has been retained by the applicant to implement final mitigation measures. A final report shall be submitted to and approved by the Manager, PF&R/Harbors Beaches & Parks Division prior to any alteration of the historical site area.

SC 9-19 Development adjacent to a place, structure, or object of historic significance shall be designed so that permitted uses and architectural design will protect the visual setting of the historic site. Such design shall be submitted to and approved by the Manager, PF&R/Harbors Beaches & Parks Division prior to any alteration of the historical site area.

RECREATION

Project Design Features

PDF 10-1 The Live Oak and Aliso Creek riding and hiking trail shall be located on the Project Site as shown in Exhibit 7 and Exhibit 63 Site Plan.

PDF 10-2 Live Oak Canyon Trail shall be constructed onsite, ultimately connecting O'Neil Regional Park to the Aliso Creek riding and hiking trail, as shown in Exhibit 7, Site Plan.

PDF 10-3 Eight onsite private parks shall be constructed as shown on Exhibit 7 Site Plan, to offset project demand.

Standard County Conditions and Mitigation Measures

SC 10-4 The developer or his assigns and successors in interest shall maintain offered park site(s) until such time as the County or its designer accepts the offer of dedication, all

in a manner of meeting the approval of the Manager, PF&R/Harbors Beaches & Parks Division.

Additional Mitigation Measures

The following additional mitigation measures (AM) shall be implemented and enforced through the provisions of existing codes and regulations:

AM 10-5 Prior to first building occupancy, the applicant shall pay all park mitigation as required by the Department Manager, PF&R/Harbors Beaches & Parks Division.

AM 10-6 Prior to final building occupancy the applicant shall dedicate and construct all required regional trail connections and improvements as approved and required by the Department Manager, PF&R/Harbors Beaches & Parks Division.

HAZARDS

PDF 11-1 Implement a comprehensive fuel modification program in accordance with Section 27 of Appendix II-A of the 1994 Uniform Fire Code as adopted by County Ordinance 3954 (the Wildland Urban Interface Task Force report was not adopted and is not enforced by the OCFA). Exhibits 9 and 64 illustrate the fuel modification zones and, although adequately described, it should be noted that the distances are horizontal measurements rather than vertical and, therefore, may actually be larger zones as measured vertically up or down a slope (based on topography).

PDF 11-2 Incorporate the use of native, low fuel plant species into the landscape plan for both manufactured slope areas and remedial grading areas where appropriate as approved by the OCFA.

PDF 11-3 Provide for the construction of a water tank off site to ensure adequate on site water supply and OCFA fire flow requirements. The minimum fireflow requirements for this project of 1500 gpm for a minimum of 2 hours at 20 psi residual pressure. This flow must be available 24 hours per day .

PDF 11-4 Wet and dry utilities shall be constructed on opposite sides of the project streets to minimize land closure during maintenance periods.

PDF 11-5 Residential structures shall be constructed of fire-resistant material, including but not limited to, "Class A roof assemblies", closed eaves and offsets, double paned or dual glazed windows. The exterior walls of structures will be constructed of " 1-hour fire resistant materials" and all structures will have fire sprinklers.

PDF 11-6 All residential structures shall be required to have automatic interior fire sprinkler systems.

PDF 11-7 The interface area between residential lots and open space areas within the project boundary shall be wrought iron fenced to minimize intrusion of wildlife into the built portions of the project site.

Standard County Conditions and Mitigation Measures

SC 11-8 Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.

SC 11-9 Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.

SC 11-10 Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.

SC 11-11 Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to the Fire Chief for review and approval.

SC 11-12 Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be clearly marked.

SC 11-13 Prior to the issuance of any certificates of use and occupancy, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.

SC 11-14 Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief. Contact the Orange County Fire Department at (714)744-6623 for a copy of the "Guidelines for Fire Department Emergency Access".

SC 11-15 Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manger, Environmental and Project Planning Services Division. The Planning and

Development Section shall be contacted at 744-0403 for requirements to be met and clearance of this condition. The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants.

SC 11-16 Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be necessary by the Fire Chief before the introduction of any combustible construction material into the project area.

SC 11-17 Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.

PUBLIC SERVICES

Project Design Features

Sheriff

SC 11-8 Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.

SC 11-9 Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.

SC 11-10 Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.

SC 11-11 Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to the Fire Chief for review and approval.

SC 11-12 Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be

clearly marked.

SC 11-13 Prior to the issuance of any certificates of use and occupancy, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.

SC 11-14 Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief. Contact the Orange County Fire Department at (714)744-6623 for a copy of the "Guidelines for Fire Department Emergency Access".

SC 11-15 Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manger, Environmental and Project Planning Services Division. The Planning and Development Section shall be contacted at 744-0403 for requirements to be met and clearance of this condition. The plan shall indicate the proposed means of achieving an acceptable level of risk to structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants.

SC 11-16 Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be necessary by the Fire Chief before the introduction of any combustible construction material into the project area.

SC 11-17 Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.

UTILITIES AND SERVICE SYSTEMS

Project Design Features

Water

PDF 13-1 The new booster pump station shall be paid for by the applicant and designed and function according to TCWD's guidelines and standards.

PDF 13-2 Operational capacities and pressure parameters for design of the booster pump station (approved by OCFA) shall be determined at design stage and should incorporate but not be limited to the following requirements:

- It shall meet the maximum day demand for the "stand alone" zones of Saddleback Meadows with an operating time of 24 hours and without its largest unit in service.

- It shall be designed with a back-up generator for the booster pump, as well as fuel and maintenance provisions.

- It shall incorporate the typical 3 or 4 pump system with an alternating state sequence.

- It shall pump from TCWD's El Toro Road zone (1,165 feet HWL) to the storage facility (reservoir) proposed.

- It shall have the ability to refill the proposed reservoir, if it were empty, within 72 hours while also providing for maximum day demands on the water system during that time.

PDF 13-3 Water conservation measures to be implemented consist of water-conserving features in the design and construction of residential homes and uses, plus use of drought-tolerant plant materials in the slope and streetscape plantings Proposed water conservation measures also include:

- Supply line pressure. Water pressure greater than 50 pounds per square inch (psi) reduced to 50 psi or less by means of pressure-reducing valves.

- Ultra-low-flush toilets: 1.5 gallon-per-flush toilets installed in all new construction.

- Landscape with low-water-using plants wherever feasible.

- Grouping of plants of similar water use to reduce over-irrigation of low-water-using plants.

- Extensive use of mulch as top cover to improve water-holding capacity of the soil.

- Installation of efficient irrigation systems that minimize runoff and evaporation, and maximize the amount of water reaching plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are proposed methods of increasing irrigation efficiency.

PDF 13-4 All design and landscape features shall comply with TCWD's guidelines and standards.

Wastewater

PDF 13-5 All utilities shall be installed by the applicant in accordance with Department/County

requirements, per the requirements outlined on the Final Tract Map.

Electricity

PDF 13-6 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Natural Gas

PDF 13-7 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Cable

PDF 13-8 All utilities shall be installed by Cox Cable in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Communications

PDF 13-9 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Standard County Conditions and Mitigation Measures

Water

SC 13-10 Prior to the issuance of any building permit(s), the applicant shall provide a report to the Manager, PDS/Building Permits Services Division, indicating that plans showing the location of all proposed reclaimed water lines used to irrigate open spaces, parks, and other landscaped areas, have been submitted to and approved by the Trabuco Canyon Water District.

SC 13-11 Prior to the issuance of building permits, water conservation measures shall be incorporated into the development design plans and which shall be submitted for approval to the Trabuco Canyon Water District.

Wastewater

SC 13-12 Prior to the issuance of a certificate of use and occupancy, sewer lines, connections, and structures shall be installed in a manner meeting the approval of the Manager, HCA/Environmental Health.

A. All waste water facilities and line shall be constructed and maintained to meet TCWD standards and requirements.

B. All sewer lines shall be underground facilities.

C. The project shall comply with all State of California Health and Safety Codes.

Electricity

SC 13-13 Prior to the issuance of a building permit, project proponent shall consult with the local gas and electric companies regarding feasible energy conservation features that should be included in the design of the proposed project. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 13-14 Prior to the issuance of a building permit, the project proponent shall incorporate passive or natural heating and cooling opportunities in the design of the proposed project including but not limited to the following: solar energy use; thermal insulation; tinted or solar reflective glass; orientation to sunlight; use of deciduous trees in landscaping; installation of roof fans; utilize fluorescent lighting, switches and thermostat, utilize time-controlled lighting; and, utilize AC units with 100% outdoor air economize. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Natural Gas

SC 13-15 The applicant shall provide for all lines and mains necessary to provide natural gas to the project.

SC 13-16 The applicant shall obtain all required permits and follow all SCG, State and County regulations and requirements regarding natural gas service.

Cable

No standard condition requirements.

Communications

SC 13-17 Applicant shall comply with the requirements of the California Public Utilities Commission and Pacific Bell Telephone Company for the provision of telephone service.

8.0 INVENTORY OF UNAVOIDABLE ADVERSE IMPACTS

In accordance with CEQA Guidelines, Section 15126(b), EIRs must include a discussion describing significant impacts of the proposed project that cannot be mitigated to a level of insignificance.

In accordance with the incorporation by reference process, the analysis in this EIR provides a greater level of detail on the specific project within the FTSP than was available during preparation of FEIR No. 531. It has been determined in this analysis that, following implementation of all mitigation measures, the project will have the following unavoidable adverse impacts:

- Land use incompatibility with: 1) O'Neill Regional Park, 2) the Ramakrishna Monastery, and 3) St. Michael's Abbey;
- Major landform alteration including cut and fill slopes up to 120-feet in height,
- Cumulative contribution to regional adverse air quality conditions, since the project is located in a non-attainment area;
- Loss of 154.13 acres of onsite habitat, including: 1) southern sycamore woodland, 2) coast live oak woodland, 3) coastal sage scrub, 4) mulefat scrub, and 5) ephemeral ponds;
- Loss of Riverside fairy shrimp habitat (ephemeral ponds) and individuals, a federally listed endangered species;
- Urban landform visual impacts to: 1) O'Neill Regional Park, 2) Ramakrishna Monastery, and 3) St. Michael's Abbey

9.0 MITIGATION MEASURE MONITORING PROGRAM

Effective January 1, 1989, the California Environmental Quality Act (CEQA) was amended to add Section 21081.6 of the Public Resources Code, implementing Assembly Bill (AB) 3180.

As part of CEQA environmental review procedures, Section 21081.6 requires a public agency to adopt a monitoring or reporting program for assessing and ensuring efficacy of any required mitigation measures applied to proposed developments. As stated in Section 21081.6 of the Public Resources Code:

> *"...the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted, or made a condition of project approval, in order to mitigate or avoid significant effects on the environment."*

Section 21081.6 provides general guidelines for implementing monitoring and reporting programs. Specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined prior to final approval of the project proposal by the responsible decision maker(s). In response to established CEQA requirements and Public Resources Code Section 21000 et seq., the proposed mitigation monitoring program shall be submitted to the Planning Department for consideration prior to completion of the environmental review process to enable the decision maker's appropriate response to the proposals.

The proposed program should be included in the Draft EIR to allow public circulation of the proposal; a mitigation monitoring program must be provided as part of the Final EIR.

In addition, pursuant to Section 21081(a) of the Public Resources Code, findings must be adopted by the decision maker coincidental to certification of the EIR. The following language shall be incorporated as part of the decision maker's Findings of Fact in response to AB 3180, and in compliance with requirements of the Public Resources Code.

1. In accordance with section requirements of Section 21081(a) and 21081.6 of the public Resources Code, the County has made the following additional findings:

   - That a mitigation reporting and monitoring program shall be implemented as specified in the final decision relative to the subject project;

   - That through covenant and agreement, prior to the recordation of the final map, certificate of occupancy and/or building permit, the applicant shall identify and appropriate licensed professional to provide certification that compliance with the required mitigation measures has been effected;

   - Site plans and/or building plans, submitted for approval by the responsible monitoring

agency, have included required mitigation measures/conditions; and,

- That an accountable enforcement agency and monitoring agency shall be identified for mitigation measures/conditions adopted as part of the decision maker's final determination.

Consistent with currently applicable law there is mutual incorporation by reference of mitigation measures contained in the Mitigation Monitoring Program and substantive conditions to the project entitlements.

COMPREHENSIVE ENVIRONMENTAL COMPLIANCE SUMMARY

SADDLEBACK MEADOWS

IN RESPONSE TO APPEAL OF EIR 566 CERTIFICATION

PREPARED FOR:

ORANGE COUNTY BOARD OF SUPERVISORS

PREPARED BY:

TPG MANAGEMENT, INC.

TPG Management, Inc.
1601 Dove Street, #105
Newport Beach, CA 92660
714-253-9595 Telephone
714-955-1170 Facsimile

VIA HAND DELIVERY

February 19, 1998

The Honorable James W. Silva, Chairman
And Members of the Board of Supervisors
Orange County
10 Civic Center Plaza, Fifth Floor
Santa Ana, California 92702-0687

Re: Appeal of Final Subsequent EIR 566 for the Saddleback Meadows Project

Dear Chairman Silva and Members of the Board of Supervisors:

This letter is submitted on behalf of the applicant, California Quartet, Ltd. in support of the Orange County Planning Commission's unanimous vote which certified Subsequent EIR #566 at it's December 3, 1997 hearing on Saddleback Meadows.

TPG Management has prepared the attached comprehensive document in response to Mr. Edmond M. Connor's letter of December 18, 1997, representing the Vedanta Society of Southern California, in their appeal of the Planning Commission's certification of Final Subsequent Environmental Impact Report No. 566.

On behalf of the applicant, California Quartet, we respectfully request that your Honorable Board uphold the Orange County Planning Commission's certification of Subsequent Environmental Impact Report #566 and deny the Vedanta Society of Southern California's appeal.

Very truly yours,

H. Pike Oliver
TPG Management, Inc.

Attachment

cc: Franklyn R. Elfend
William D. Ross, Esq.
Thomas B. Mathews
Benjamin P. de Mayo
Edmond M. Connor, Esq.
Sandra F Jacobs

COMPREHENSIVE ENVIRONMENTAL COMPLIANCE SUMMARY

SADDLEBACK MEADOWS

IN RESPONSE TO APPEAL OF SUBSEQUENT EIR 566 CERTIFICATION

PREPARED FOR:

ORANGE COUNTY BOARD OF SUPERVISORS

PREPARED BY:

TPG MANAGEMENT, INC.

FEBRUARY 19 , 1998

Comprehensive Environmental Compliance Summary
In Response to
Appeal of Final Subsequent EIR 566 Certification
Saddleback Meadows

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APPENDICES

Appendix A Adopted EIR 566 Review/Certification Procedures
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1.0 INTRODUCTION/PURPOSE OF DOCUMENT

This comprehensive environmental compliance summary has been prepared to provide pertinent information to the Orange County Board of Supervisors regarding the certification of EIR 566 prepared for Saddleback Meadows, by the Orange County Planning Commission on December 3, 1997 Extensive and comprehensive environmental review and analysis has been completed for the Subsequent EIR 566 along with EIR 561 providing an in-depth analysis of the potential environmental impacts associated with implementation of the Saddleback Meadows project (705 manufactured housing units and 1 5 acres of neighborhood commercial) as depicted on Recorded Tract Map 10692. In addition, the EIR contains proposed extensive mitigation measures to reduce or eliminate adverse environmental effects associated with project implementation

On November 25, 1997, the Orange County Board of Supervisors adopted a specific environmental review procedure for a narrowly defined class of projects with previously recorded tract maps, including the Saddleback Meadows project This procedure allows for the Planning Commission, to take action certifying an Environmental Impact Report for a previously recorded tract map. Certification of an Environmental Impact Report under these circumstances, is appealeable to the Board of Supervisor who can either 1) deny the appeal and uphold the EIR certification, 2) uphold the appeal and decertify the EIR, or 3) certify the EIR with modifications County of Orange Planning and Development Services Department staff have prepared a staff report which recommends that the Board of Supervisors deny the appeal and uphold the EIR certification. The applicant is in agreement with the recommendations outlined in the staff report.

This document has been organized into the following sections and appendices for ease of use·

Section 1	Introduction/Purpose of Document
Section 2	Response to December 18, 1997 Connor, Culver, Blake & Griffin appeal Letter
Section 3	Response to EIR 566 *Comment* Letters
Appendix A – I	Associated Documents and Information

Based on the information contained in EIRs 561 and 566, Planning Commission public hearing testimony and the administrative record, County staff has indicated that EIR 566 adequately documents the environmental setting, impacts and required mitigation measures associated with the Saddleback Meadows project Therefore, we concur with County staff that certification of EIR 566 by the Planning Commission must be upheld as adequate and the appeal denied.

2.0 RESPONSE TO DECEMBER 18, 1997 CONNOR, CULVER, BLAKE & GRIFFIN APPEAL LETTER

2.1 Response to Grounds for Appeal

The Applicant, California Quartet, Ltd. ("California Quartet"), opposes the grounds for a notice of appeal of the Orange County ("County") Planning Commission's ("Commission") certification of Final Subsequent Environmental Impact Report No. 566 ("FSEIR 566") contained in a December 18, 1997 letter submitted by counsel for the Vedanta Society of Southern California ("Vedanta"). California Quartet sets forth the California Environmental Quality Act, Public Resources Code section 21000 et seq ("CEQA")[1] and California Code of Regulations, Title 14, section 15000 et seq. ("CEQA Guidelines") standards for good faith responses to comments and, consistent with those standards, provides its specific bases for opposition as follows.

2.2 EIR Certification Process

The County of Orange Planning Commission acted on FEIR 566 after a newly prepared procedure, (attached) was ratified by the Board of Supervisors at their November 25th meeting. This five (5) step process outlines the specific requirements for review, certification and appeal of FEIR 566, due to the unique nature of the grading permit application and the associated subsequent EIR In accordance with County policy, grading permits are considered ministerial actions, which are exempt from the requirements of CEQA, and do not require a public hearing, and as such are administratively issued by the grading official. In the case of Saddleback Meadows, many factors contributed to the decision to prepare a subsequent FEIR to evaluate the environmental effects associated with the submittal of a grading application for 705 lots, legally created by Recorded Tract Map 10692 in 1988. These factors are based on Section 15162 of the CEQA Guidelines and include 1) Substantial changes had occurred in the environment and related policies and programs since Tract Map 10692 was recorded in 1988; 2) Important new information became available since the certification of EIR documents prepared for the subject site (EIRs 059 and 203), including a) establishment of the Natural Communities Conservation Planning (NCCP) program for Coastal Sage Scrub habitat in response to the federal listing of the California gnatcatcher as a threatened species, b) listing of the Riverside fairy shrimp as endangered by the U S Fish and Wildlife Service, thereby requiring the preservation/relocation of ephemeral pond habitat, and c) the importance of the Saddleback Meadows site as a major wildlife corridor and linkage between the Cleveland National Forest and the Whiting Ranch/Limestone Regional Park open space area

It was for these among other reasons that the County considered the whole of the project, or implementation of recorded tract 10692, in their decision to prepare FEIR 566 Grading, although an important component of the proposed project with the potential for severe environmental impacts was just one of 13 environmental factors evaluated in FEIR 566 Grading Application (GA) 960048 was merely the triggering mechanism for the environmental review process. The certification of FEIR 566 was not separated from the approval of the grading application, in that all decisions related to the grading application will rely on the information contained within certified FEIR 566

1 All section references will be to the Public Resources Code unless otherwise noted

In compliance with CEQA Section 15082, the County distributed a Notice of Preparation (NOP) and Initial Study to each federal and state responsible agency having jurisdiction over the Saddleback Meadows property. These include agencies with regulatory responsibilities over wildlife, recreation and water resources, air, transportation and waste management, among others. Additionally, local municipalities and districts, libraries, homeowners associations, interest groups and community residents were notified

Potentially significant impacts identified in the Initial Study were based on a careful analysis of project components and information derived from previous environmental analyses prepared for the property, principally that emanating from Proposed Final EIR 561. The environmental impact checklist categories included. Land Use/Housing, Soils and Geology, Water/Hydrology, Transportation/Circulation, Air Quality, Noise, Biological Resources, Aesthetics, Cultural/Scientific Resources, Recreation, Hazards, Public Services, and Utilities/Service Systems.

The information obtained in reviewing correspondence received from the above-mentioned agencies, as well as groups and individuals, provided needed guidance in further clarifying and augmenting the environmental impact category analysis. Additionally, a scoping meeting was held between the U.S Fish and Wildlife Service, the California Department of Fish and Game, and the County's Planning and Development Services and Current Planning Services (NCCP staff) Divisions in an effort to clarify and discuss the unique biological resource impacts and processing constraints associated with the Saddleback Meadows project The information garnered from the NOP process, in concert with in-house Screencheck EIR review by various County experts, e g , grading, NCCP, drainage, etc , culminated in the preparation of an adequate Draft SEIR with a comprehensive inventory of mitigation measures that meet the requirements of CEQA.

2.3 Evaluation of Significant Environmental Impacts

County staff believes that FEIR 566 adequately addresses all environmental impacts associated with the project FEIR 566 contains an in-depth analysis of 13 environmental factors identified as being potentially impacted in the Initial study prepared for the 705 unit final recorded tract map FEIR 566 was prepared as a Subsequent EIR, in accordance with Section 15162 of the CEQA Guidelines, and incorporated EIR's 059, 061, 203, 439, 459, 531 and 561 by reference In addition, issues raised in individual comment letters have been comprehensively addressed in the Response to Comments document dated November 1997

2.4 Evaluation of Project Alternatives

A reasonable range of alternatives and all feasible mitigation measures were evaluated in FEIR 566, in compliance with Section 15126(d) of the CEQA Guidelines, including. 1) no project, 2) 150 - 20,000 sf lots, 3) 100 SFD units, 4) Staff alternative - 299 SFD units and 5) 318 units - reduced footprint. These alternatives are in addition to other alternatives evaluated in the above referenced EIR's incorporated by reference An EIR is not required to evaluate an exhaustive list of alternatives, and is not required to evaluate alternatives whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

In an effort to develop an effective range of alternatives to include in Draft SEIR 566, the Planning

& Development Services Department reviewed Final EIR 531 for the Foothill/Trabuco Specific Plan. Section 13.0, Site Specific Alternatives, of Final EIR 531 discusses two potential alternatives for the Bridlewood (Saddleback Meadows) property. Both of these suggested alternatives were included in Proposed Final EIR 561 and include Alternative No. 2 - Foothill/Trabuco Specific Plan - Staff Alternative A for 150 minimum 20,000 square foot single family lots and Alternative No. 3 - Foothill/Trabuco Specific Plan - Staff Alternative B for 100 single family lots on a 22-acre portion of the site. Inclusion of these alternatives served to ensure that the planning efforts associated with preparation of the FTSP were reflected in the environmental analysis for the project

The Planning & Development Services Department believes that the alternatives addressed in Final Subsequent EIR 566 meet the requirement under CEQA Guidelines Section 15126(d)(5) that the range of alternatives required in an EIR is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice."

Mitigation measures contained in the EIR were derived through a careful analysis of environmental impacts in each of the 13 checklist categories and consultation with in-house experts and external agencies, groups and individuals as required per CEQA The 219 mitigation measures in the EIR are expressed as Project Design Features (PDF), Standard Conditions of Approval and Mitigation Measures (SC), and Additional Mitigation Measures (AM).

PDFs are specific design features of the project proposed by the applicant to reduce potential environmental impacts These features provide mitigation through avoidance, reduction or off-setting of impacts and are, in effect, mitigation through project design SC's include project requirements mandated by the County (e.g., County of Orange Standard Conditions of Approval Manual, Uniform Building Code) and state and federal agencies with authorization for environmental regulation.

Additional Mitigation Measures (AM's) are prescribed as necessary to further mitigate project impacts beyond the mitigation provided by the PDFs and applicable Standard Conditions For those impacts with no County Standard Conditions, project specific mitigation measures are imposed to reduce project impacts to the maximum extent possible

2.5 Response to Comments on the Draft EIR

The response to comments was prepared in accordance with Section 15088(b) of the State CEQA Guidelines and as such provides a good faith, reasoned analysis in response to environmental issues raised. In fact, a comprehensive response to comments document was prepared to address each comment submitted on EIR 566 and was distributed to commentators a minimum of 10 days prior to the Planning Commission hearing on FEIR 566. The response to comments document included an individual response to each comment received and a correction and additions section to identify areas within FEIR 566 which required revisions/additions based on comments received

The appellant contends that Final Subsequent EIR 566 fails to adequately respond to the comments set forth in the 28 Letters noted in the Appeal.

Response

I The FSEIR 566 Responses To Comments Provide A Good Faith Reasoned Analysis

The FSEIR 566 Responses to Comments provide a good faith, reasoned analysis in response to environmental concerns consistent with CEQA Guidelines section 15088(b). The County prepared a comprehensive response to comments document addressing each comment submitted on FSEIR 566 and was distributed a minimum of 10 days prior to the Commission hearing on FSEIR 566 The response to comments document included an individual response to each comment received and a correction and additions section identifying areas within FEIR 566 requiring revisions/additions based on comments received To the extent Appellant contends responses were inadequate or incomplete, California Quartet provides the following supplemental responses Notwithstanding, California Quartet submits that FSEIR 566 satisfies the legal standard for formal written responses to comments under section 21091(d) and CEQA Guidelines section 15088

A. The Standard Of Adequacy For Responses To Public Comments.

The requirement for formal written responses to comments on a draft EIR was codified in section 21091(d) in 1993 (Stats 1993, ch.1130, § 11). Section 21091(d) provides:

> (d)(1) The lead agency shall consider any comments it receives on a draft environmental impact report or on a proposed negative declaration, which are received within the public review period
>
> (2)(A) With respect to the consideration of comments received on a draft environmental impact report, the lead agency shall evaluate any comments on environmental issues that are received from persons who have reviewed the draft and shall prepare a written response pursuant to subparagraph (B) The lead agency may also respond to comments that are received after the close of the public review period
>
> (B) The written response shall describe the disposition of any significant environmental issue that is raised by commentors The responses shall be prepared consistent with Section 15088 of Title 14 of the California Code of Regulations, as those regulations existed on June 1, 1993

Section 21091 1(d) essentially continues the standard of review established in CEQA Guidelines section 15088 and earlier case law See e.g., People v Kern County, 39 Cal.App.3d 830, 841-842 (1974) ("Kern County"). CEQA Guidelines section 15088(b) provides:

> (b) The written response shall describe the disposition of significant environmental issues raised (e g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major

> environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice

The response to comments process fulfills the desirable function of assuring that the Lead Agency has actually read and considered comments on the draft EIR, and undertaken responsive action or further investigation where appropriate The response-to-comments function also permits the public and interested public agencies to obtain clarification or corrections of the EIR, or at least to know where the agency stands on particular issues See Kern County, supra, 39 Cal.App.3d at 841-842. However, the comments-and-responses section of the Final EIR is not intended to serve as a forum for debating legal, social, political or complex technical issues which cannot reasonably be resolved in an environmental impact report, nor is it intended to serve primarily as a convenient means of generating issues for litigation See e.g., Twain Harte Homeowners Assn v. County of Tuolumne, 138 Cal App.3d 664, 686 (1982) ("Twain Harte") [decision to reject proposed mitigation measure a policy judgment for the agency].) The lead agency is not required to accept every comment and criticism as valid nor to allow its actions to be dictated by the opinions of commenting parties. Browning-Ferris Industries v. City Council, 181 Cal App.3d 852, 863 (1986) ("Browning-Ferris"). That a commentor disagrees with the facts or conclusions expressed in the lead agency's responses is not grounds for judicial intervention. Id

In elaborating the basic standards codified in CEQA Guidelines section 15088, the courts have stated a number of principles

- The lead agency need not respond to every comment on the EIR, but only those raising significant environmental issues Browning-Ferris, supra, 181 Cal App.3d at 862; CEQA Guidelines section 15088(b).

- While conclusory responses are disfavored, the level of detail required may vary with the nature of the comment A general reply is appropriate where the comment itself is general in nature, a more factual or technical response may be required where the comment is more detailed Id.

- The adequacy of the lead agency's responses must also be addressed in light of the EIR as a whole. Twain Harte, supra, 138 Cal App 3d at 686. The lead agency's responses need not be exhaustive, isolated lapses or omissions do not constitute a basis for overturning the agency's decision where the responses demonstrate a good faith effort on the whole. Id ; Towards Responsibility in Planning v City of San Jose, 200 Cal App 3d 671, 683 (1988) ("Towards")

- Where an adequate response is offered to one comment, the EIR is not defective because a less detailed response is given to similar comments appearing elsewhere in the record. (Twaine Harte, supra, 138 Cal App.3d at 684.)

- Where relevant responsive information already exists in the EIR, the lead agency may also simply direct the commentor to the information rather than reiterate its entire analysis in the response to comments section See e.g., Cleary v. Stanislaus County, 118 Cal.App 3d 348, 359-360 (1981).

The County's response to comments totals some 144 pages of single-spaced text. County's responses to comments on the draft EIR demonstrate a good faith effort to respond regarding all genuinely significant environmental issues The FEIR's responses to comments are fully and completely adequate under the relevant legal standards. Below, California Quartet provides supplemental responses to comments referenced in the Notice of Appeal

In responding to comments received in letters from federal, state, and local agencies, community residents, and interest groups, every effort was made to provide thorough responses and amend the EIR as required through preparation of a Response to Comments document (RTC) The RTC was prepared in accordance with Section 15088(b) of the State CEQA Guidelines and provides a good faith, reasoned analysis in response to all environmental issues raised. The RTC was prepared to address each comment submitted to the County concerning Draft EIR 566 during the public review period

With regard to content, the RTC included an individual response to each comment received and a Correction and Additions section to identify areas within Final Subsequent EIR 566 which required revisions or additions based on the comments received.

In addition to the above, the Orange County Planning Commission conducted two public meetings on the project on October 22, 1997 and December 3, 1997. These meetings involved nearly six hours of staff presentations and discussions, Commission deliberations, and public testimony All of the substantive comments emanating from these meetings were addressed through adjustments and additions to the Final Subsequent EIR 566 and made part of the administrative record for the project

2.6 Facts/Findings/Statement of Overriding Considerations

The final set of Findings and Statement of Overriding Considerations has been modified based on input from the Planning Commission at their December 3rd, 1997 public hearing These Findings and Statement of Overriding Considerations have been prepared in conformance with the requirements of CEQA and the CEQA Guidelines, and are supported by substantial evidence in the administrative record.

The Statement of Overriding Considerations was prepared in conformance with the requirements of CEQA Guidelines Sec. 15093, which requires "the decision-maker to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project. If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable'."

The benefits of the Saddleback Meadows project identified in Final Subsequent EIR 566 include:

1. The Project would result in the elimination of longstanding geotechnical instability on the site through the construction of buttresses and shear keys This would have the added benefits of providing increased stability to adjacent properties,

2. The Project would result in the provision of 66 2/3% (470 units) of the project as affordable housing;

3 The Project would result in drainage improvements to Aliso Creek,

4. The Project would result in the stabilization of El Toro Road, which will correct a longstanding constraint to implementing the Master Plan of Arterial Highways in this section of the County,

5 The Project would result in the implementation of critical County Riding and Hiking Trail linkages; and

6. Finally, the Statement of Overriding Considerations contains as a benefit the recorded status of Tract Map 10692. This must be considered an overriding consideration by the County due to the recorded map's vesting status in conjunction with the payment of associated infrastructure capacity fees, tax assessments paid since the map recorded in 1988 and public dedications

In conclusion, the Orange County Planning Commission, in its deliberations on the Saddleback Meadows project, considered the benefits and constraints noted above, along with the impacts of the project. The Planning Commission, in its certification of Final Subsequent EIR 566, determined that the benefits and/or constraints of the project outweigh the environmental impacts associated with the project.

2.7 Public Access to EIR 566 and Related Documents

In complying with CEQA's public notification requirements, the Planning & Development Services Department followed its customary procedure in adequately addressing controversial projects by exceeding those requirements For example, adjacent landowners with considerable interest in the status of the Saddleback Meadows project were mailed complete sets of environmental documentation including the EIR and supporting technical appendices Additionally, a Notice of Availability was sent to all federal, state, and local agencies and districts, community residents, and interest groups who had expressed an interest in the project.

All documentation was provided in a timely manner and was available to the public on this project DEIR 566 and related appendices were circulated for public review for a minimum of 45 days, in compliance with public review requirements outlined in the CEQA Guidelines It should also be noted that additional time , above and beyond the 45 day review period, was granted to Connor, Culver, Blake & Griffin, LLP to submit comments on DEIR 566. In addition, detailed grading plan information supplied by the applicant for public review following the October 22, 1997 Planning

Commission meeting, has been included in the EIR since it was originally circulated in June, 1997. Reduced copies of the grading plans were included in DEIR 566 in Exhibits 16 and 19, as well as the geotechnical appendix to the FEIR

2.8 Mitigation Monitoring Program

The Mitigation Monitoring and Reporting Program (MMRP) was developed to ensure that mitigation measures outlined in Final Subsequent EIR 566 for the Saddleback Meadows project are implemented as required. The MMRP was prepared in conformance with Section 21081.6 of the Public Resources Code and the County's mitigation monitoring requirements.

The MMRP contains all of the mitigation measures included in Final Subsequent EIR 566, including additional mitigation measures generated from the Orange County Planning Commission meetings for the project The MMRP fully describes the structure of the mitigation measures (Project Design Features [PDFs], Standard Conditions of Approval and Mitigation Measures [SC's], and Additional Mitigation Measures [AM's], see Response No 3 above) in an effort to make the document more understandable to the future user The MMRP features an easy to use table which states the complete text of each mitigation measure, categorized by environmental impact checklist category The table also features columns identifying the implementation mechanism (grading permit, building permit, etc.); method of verification (site inspection, field review, etc.); timing of verification (e.g. prior to issuance of grading permit), and responsible person (e.g Manager, Subdivision and Grading Services Division).

In conclusion, the Planning & Development Services Department has determined that the MMRP complies with CEQA requirements and is adequate in every respect

2.9 Public Review of Resolution Certifying EIR 566

The Resolution certifying Final Subsequent EIR 566 was made available to the appellant and its legal counsel, Conner, Culver, Blake & Griffin LLP, one week prior to the Planning Commission meeting of October 22, 1997 The Resolution, including the Statement of Findings and Facts and Statement of Overriding Considerations, was made available for public review and contains all of the additional mitigation measures and conditions of approval required by Commissioner Coacher at the December 3, 1997 Planning Commission hearing

It is important to note that the changes requested by Commissioner Coacher and Conner, Culver, Blake & Griffen LLP, generally included points of clarification and emphasis These changes were read into the administrative record at the December 3, 1997 Planning Commission Meeting The geotechnical conditions recommended in the letter of December 1, 1997, by Kenneth R King, Civil Engineer, are refinements to standard County geotechnical procedures and have been included in the Statement of Findings and Facts.

2.10 Public Review of Adopted EIR Review Process

The five-step CEQA review process approved by the Board of Supervisors at the November 25, 1997 meeting, was developed in an effort to effectively address the appeal process for Saddleback

Meadows FSEIR 566. The sixth step noted in the appeal relates directly to appealing a project approval, not CEQA. In connection with this five-step process, staff is currently in the process of drafting a comprehensive revision to the County Environmental Analysis Procedures, which will incorporate the provisions of Public Resources Code Section 21151. This provision requires that certification of an environmental impact report by a non-elected body is appealable to the agency's elected body. At the November 25th meeting, Supervisor Spitzer made a motion that the County Grading Code be amended to allow general, appeals of issued grading permits. On December 16,1997, the Board declined to so amend the Grading Code

It is the position of the Planning & Development Services Department and County Counsel that the Board's decision not to amend the Grading Code does not nullify the five-step CEQA review process approved on November 25th. This five-step process specifically addresses the appropriate procedures for appealing Final Subsequent EIR 566 for the Saddleback Meadows project The only reference to grading procedures in this process is Step 4's statement that the Building Official may issue the grading permit subsequent to expiration or denial of the appeal or Board certification of the FSEIR. This reference does not connect the five-step process to the (at that time) prospective amendment to the Grading Code

The proposed amendment to the Grading Code would have created a procedure for appealing issued grading permits. As previously stated in Final Subsequent EIR 566 and elsewhere in the administrative record for the project, certification of Final Subsequent EIR 566 does not lead to automatic issuance of the grading permit for the Saddleback Meadows project

3.0 RESPONSES TO EIR 566 COMMENT LETTERS

The following section provides a comprehensive response to all comment letters received by the Orange County Planning and Development Services Department regarding Draft Subsequent EIR 566, up to and including the December 3, 1997 Planning Commission hearing, where EIR 566 was certified. Letters received on Draft Subsequent EIR include

- Robert A Hamilton - June 29, 1997
- Saundra F. Jacobs - August 5, 1997
- Connor, Culver, Blake & Griffin - August 6, 1997
- Connor, Culver, Blake & Griffin - August 8, 1997
- USFWS – August 8, 1997
- City of Mission Viejo - August 11, 1997
- Bowie, Arneson, Kadi, Wiles & Giannone - August 11, 1997
- Orange County Transportation Authority - August 11, 1997
- Kimberly A Stocking - August 11, 1997
- Wayne L. Brown - August 12, 1997
- Amber Graves - August 12, 1997
- Debra Moddelmog - August 12, 1997
- Justin Watson - August 12, 1997
- City of Lake Forest - August 12, 1997
- SCAG - August 12, 1997
- Saddleback Valley Unified School District - August 12, 1997
- State of California, Department Of Parks and Recreation - August 15, 1997
- Ray Chandos - August 18, 1997
- Rutan & Tucker - August 21, 1997
- Saundra F. Jacobs - August 22, 1997
- Conner, Culver, Blake & Griffin -August 22, 1997
- Conner, Culver, Blake & Griffin - October 15, 1997
- Connor, Culver, Blake & Griffin - November 3, 1997
- Conner, Culver, Blake & Griffin - November 5, 1997
- Connor, Culver, Blake & Griffin - November 26, 1997
- Saundra F Jacobs - December 2, 1997
- Connor, Culver, Blake & Griffin - December 2, 1997

3.1 COMMENTS AND RESPONSES - Robert A. Hamilton, June 29, 1997

RAH-1

Comment

On behalf of the Orange County Chapter of the California Native Plant Society (CNPS), and on my own behalf as a wildlife biologist, I offer the following comments on Draft Subsequent EIR No 566. My knowledge of the CEQA review process, as it applies to biological resources in Orange County and the region, derives from over eight years' experience as a full-time biological consultant based in Orange County During this time, I have prepared

numerous biological technical reports for CEQA documentation covering large and small projects throughout Orange County and elsewhere in the region I've certainly never encountered a situation where a project, once denied because of its incompatibility with applicable planning and zoning laws, was resubmitted in a form that actually flaunts the law more flagrantly than it did the first time around. I know better than to inquire about the circumstances under which such a ridiculous situation has come to be, or to spend much time actually considering the new development scheme.

Response

The comment states the qualifications of the commentator and his opinion relative to the consistency of the proposed project with applicable planning and zoning laws. A detailed discussion of the relationship between the recorded tract map and existing zoning and planning laws is contained in Section 4.1 3 of the DEIR on page 4-11.

RAH-2

Comment

On 29 February 1996, I submitted a letter to the County of Orange (County) commenting on DEIR No. 561, which covered the applicant's previously proposed project on this same site. This letter contained 26 comments (many more, actually, but that's the number that were responded to in any form). Most of my comments addressed the DEIR's factual errors and internal inconsistencies. I also suggested a number or realistic solutions to problems that I identified

I have just completed a review of the responses prepared by the applicant/County in response to my previous letter, and now remember afresh that most of my direct questions and comments were sidestepped, ignored, vaguely acknowledged, or responded to in a manner that obfuscated the comment's intent This, combined with the fact that the new project makes no pretense of complying with planning and zoning laws, or the concerns of this community, indicates to me that the applicant/County has no meaningful interest in my thoughts or opinions.

I'm sure this is a common reaction of citizens who commented on the previous DEIR, but I find the situation particularly confounding, as the County recently selected me to serve on the 37,000-acre Nature Reserve of Orange County's Technical Advisory Committee. According to the 23 May 1997 appointment letter that I received from Executive Director Tim Neely, this committee will "serve as advisors to the Board of Directors on issues relating to monitoring , management and science " These are precisely the types of issues that I have commented on with regard to this project I can't be an ignorant gadfly and a trusted scientific advisor simultaneously, so I ask the County to make up its mind

Response

The referenced letter dated February 29, 1996 which was directed at DEIR 561, was

apportioned into 26 distinct comments for the purpose of preparing concise responses. Each comment was individually responded to and, in general, directed the commentator to the location in DEIR 561 where the information requested was located

RAH-3

Comment

Finally, I ask at least one County planner to review the responses that the applicant's consultants gave to my previous comments on this project; these were given with your approval and under your agency's name If the goal of the Environmental & Project Planning Services Division is to completely frustrate the few citizens who take the time to read and comment on your EIRs, and to thus subvert the California Environmental Quality Act, you have succeeded

Response

This comment is directed at DEIR 561 for a conventional subdivision of 318 single family dwellings (SFDs) The preparation of the previous Response to Comments Document was extensively reviewed and/or revised by staff of the Orange County Planning and Development Services Department, Environmental & Project Planning Division staff All responses to comments contained in the referenced document were prepared in accordance with the requirements of CEQA and the CEQA Guidelines

RAH-4

Comment

If the County is interested in taking a step in a more productive direction, I suggest that you spend a few dollars having an outside biological consultant review biological assessments *and* responses to comments prepared for major EIRs. For documents prepared by biologists based outside of Orange County, the reviewing firm should be based within Orange County, as consultants based elsewhere often display limited knowledge of the status and distribution of plant and animal species in Orange County This simple and relatively cheap process would greatly improve the quality and credibility of the County environmental documents, it is a fairly common practice for CEQA lead agencies statewide

Response

The comment indicating that biological firms based outside of the County have less credibility and knowledge than those based within the county is without basis In fact, many of the firms and individuals involved with developing the Orange County NCCP are not based in the County The Planning and Development Services Department does not require second party review practices

3.2 COMMENTS AND RESPONSES - SFC CONSULTANTS/Saundra F. Jacobs, REA, Principal, August 5, 1997

SFC-1

Comment

I want to thank you and Bill Grieman again for providing for me, not only the previous EIR's for Saddleback Meadows, but for providing a desk and room for me to review these documents in your office.

While I intend to provide the County with my comments to Draft EIR 566, I would like a reasonable period of time to review the current Phase I grading plans which area referenced in the Draft EIR My objective would be to determine whether the Draft EIR adequately addresses the impacts associated with the proposed grading shown on the grading plans. Unfortunately, I have been informed that the grading plans, which are the subject of the grading permit application, are not currently on file at the County for me to review at this time. I was able to review an older version of the grading plans that Bill Grieman had available However, I have been told that I can make separate arrangements with the applicant to obtain a copy of the current grading plans, but that would take additional time and money that I had not planned on spending Under the circumstances, I would ask that I be provided with an extension of time to submit comments on the Draft EIR, after I have had a chance to review the grading plans, which I hope will be made available at the County shortly.

I am requesting a three-week extension to the September 12, 1997 deadline, to review not only the grading plan, but also to review the files to the Zone Changes previously approved by the County I have asked the Clerk of the Board to pull files for the following Zone Change Applications: ZC 79-24, ZC 82-63 and ZC 84-3, and I have received a call back from Beverly at the Clerk of the Board, indicating that these files should be available for my review sometime this week

Please let me know whether you office will be able to accommodate my request for the three-week time extension to submit comments on the Draft EIR. The August 12 deadline is coming on too fast for me to be able to complete my review of all the necessary documents, particularly the grading plans, so I hope that you will be able to grant me the extra time I have requested Please call me with your response

Response

Although a grading plan application is the initiating activity which resulted in the determination that DEIR 566 be prepared, grading is only one of the issues being evaluated in the CEQA document The County's CEQA action will consider the entire action, which in this case, is the development of a 705 unit manufactured housing subdivision and a small retail site on the project site

Sufficient detailed grading and related geotechnical information is available in DEIR 566, including information incorporated by reference from DEIR 561, prepared for the previous 318 unit proposal, in Section 4 2 of the DEIR, beginning on page 4-33. The information is based upon extensive geotechnical investigations conducted for the project site, which are contained in the Appendices for DEIR 566 and DEIR 561.

The geotechnical information contained in DEIR 566 meets standard practices of the County of Orange, which requires sufficient grading information for a planning decision. The planning level of detail includes the location of landslides, faults and other geotechnical hazards, the types of soil, and proposed grading concepts, including post grading topography, being proposed.

Standard 40' scale grading plans and accompanying more detailed geotechnical review documents and detailed hydrology reports will be reviewed and approved by the Subdivision and Grading Services Division, in consultation with various other divisions of the County including Environmental and Project Planning Services Division, prior to issuance of a grading permit. If significant new impacts, not previously addressed, are discovered at that time, a new CEQA document will be required.

It should be noted that following the October 22 Planning Commission meeting, detailed grading plan information, in the form of a *Grading Library*, was made available to the public. This information which includes the 40' scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows was provided in an effort to respond to the high level of interest demonstrated by the public regarding the project grading impacts.

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public. This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns. The Planning and Development Services Department has multiple copies of the Grading Library on file and has sent notifications of availability to each individual that provided comments on the Draft EIR (566).

3.3 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN, LLP. Edmond M. Connor, August 6, 1997

CCBG-1

Comment

As you know, August 12, 1997 is the current deadline for submitting comments on Draft EIR 566, the subsequent environmental impact report which has been prepared in connection with the grading permit application submitted by the developer of the Saddleback Meadows project. Our firm has been asked to submit comments on the Draft EIR on behalf of the Vedanta Society of Southern California (the "Society") which owns and maintains the Ramakrishna Monastery adjacent to the project site. However, due to an unusual set of circumstances, we find ourselves unable to submit comments prior to the August 12 deadline because critically important documents that we and our consultants need to analyze in assessing the adequacy of Draft EIR 566 have not been made available for public review

The problem that we have encountered is that we have not been able to gain access to the developer's grading plans which are the *sine qua non* of the grading permit application process Without such plan, no permit can be issued Moreover, without access to the grading plans themselves, it is impossible to comment on the adequacy of Draft EIR 566 which, as stated in the Initial Study, was prepared for the express purpose of evaluating the environmental effects associated with the grading permit application

Indeed, without being able to review the grading plans, neither our firm, nor the geotechnical consultants which have been engaged on behalf of the Society, can determine whether Draft EIR 566 properly evaluates the impacts, and adequately addresses the mitigation measures, associated with the proposed grading of the Saddleback Meadows property Thus, the Society is effectively stymied in its ability to submit adequate comments on the Draft EIR by the August 12 deadline

Last Friday, during a meeting with Messrs. McGill and de Mayo at the County offices, I asked if I could obtain copies of the grading plans, but I was informed that the County had returned the plans to the developer and no longer had a set available for public review. I was also told that, if I wanted to obtain a copy of the grading plans, I would have to contact the developer directly and make arrangements to pay for copies of the plans to be made. Although my office promptly contacted the developer's agent, TPG Management, immediately following my meeting at the County, and then, first thing Monday morning, messengered a check to TPG to comply with its demand that we pay *in advance* for the cost of copying the plans, several days have gone by; and we still have not received any plans as of this writing. I am surprised that it would take more than three days to run blue lines of the grading plan, but, be that as it may, we still do not have them and the August 12 deadline for submitting comments is coming on fast Under these circumstances, therefore, I would respectfully request that the Society be granted a minimum of 30-day extension of time to submit its comments on Draft EIR 566.

Actually, I think the proper thing to do in light of the fact that the grading plans have not been available for public review at *any* time during the 45-day comment period for Draft EIR 566 is to circulate a *new* public notice setting a *new* deadline for submitting comments on the Draft EIR. The new time period for submitting comments should not start running until the grading plans are made available for public review at the County.

Response

Please refer to Response to Comment SFC-1 and the letter from Mr. Tom Mathews, Director, County of Orange Planning and the Development Services Department, to Mr. Edmond N Connor, dated August 12, 1997 (Appendix B). The letter explains that although the grading application (960048) is the initiating activity which resulted in the determination that DEIR 566 be prepared, the County's CEQA action will consider all of the components of the proposed project. In addition, the letter indicates that the DEIR contains sufficient detailed grading and geotechnical information which meets standard County practices for a planning decision Due to the special interest of the Vedanta Society, the County agreed to respond to comments from the Vedanta Society provided they were received no later than 4·00pm on August 22, 1997

It should be noted that following the October 22 Planning Commission meeting, detailed grading plan information, in the form of a *Grading Library,* was made available to the public. This information which includes the 40 scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows was provided in an effort to respond to the high level of interest demonstrated by the public regarding the projects grading impacts.

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns The Planning and Development Services Department has multiple copies of the Grading Library on file and has sent notifications of availability to each individual that provided comments on the Draft EIR (566) This information library was made available one week after the October 22, 1997 Planning Commission Hearing. The next Planning Commission Hearing was not held until December 3, 1997, which effectively gave respondent an additional 45 days to review these documents

CCBG-2

Comment

What should *also* be made available for review and copying at the County is the soils engineer's geotechnical review of the 40-scale grading plans which the Orange County Grading Code requires be submitted *before* any grading permit can be issued Indeed, without the soils "specs" providing details regarding proposed buttresses, shear keys, back cuts, etc., it is difficult to understand the grading plans. Moreover, it is virtually *impossible* to assess feasible mitigation measures for known geotechnical hazards without having access to the grading plan review prepared by the soils engineer of record

Please let me know whether the grading plan review by G.A. Nicoll & Associates is available for public review and copying As you may be aware, Draft EIR 566 specifically states that a grading plan review will be prepared "to accompany the grading permit application." (See Appendix D, p 4, paragraph 4) If, as I suspect, Nicoll's grading plan review is *not* available for review and copying, then this would be yet another reason for re-noticing the public comment period on Draft EIR 566 In fact, if the grading plan review has not been prepared or is unavailable for public review, this would raise serious questions as to the legal adequacy of Draft EIR 566

Response

Refer to response to comment CCBG-1.

CCBG-3

Comment

I do not wish to criticize the County for what appears to have been a problem created by the developer in not making critical documents available for review, but the fact remains that neither the Society, nor any other "interested party" or member of the public, has been dealt a "fair hand" in being required to submit comments on Draft EIR 566 without being allowed reasonable and timely access to the documents which are the "very heart and soul" of the grading permit application, i e , the grading plans and the grading plan review. I would greatly appreciate it if your office would rectify this problem by (1) making copies of the grading plans and the grading plan review available for public review at the County as soon as possible and (2) providing public notice to all interested persons that a new 45-day time period to submit comments on Draft EIR 566 has been established If your office is not inclined to provide all members of the public with such an extension of time, then, at the minimum, I would ask that the Society be provided with the 30-day extension which I have requested.

As a final note, I would ask that my name and address be placed on whatever public notice lists are being maintained by the County in connection with the Saddleback Meadows project and any planning approvals and matters relating thereto Please add me as an "interested party" on all mailing lists so that I can receive public notice, information, and reports regarding any and all aspects of the Saddleback Meadows property or project Thank you for your courtesy and cooperation in this regard.

Response

Refer to comment CCBG-1.

3.4 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN, LLP. Edmond M. Connor, August 8, 1997

CCBG.2-1

Comment

This will confirm this afternoon's telephone conversation during which you kindly agreed to provide my client, the Vedanta Society of Southern California (the "Society") with an extension of time, to and including next Friday, August 15, 1997, within which to submit comments on Draft EIR 566. You explained that you had consulted with John Buzas and had concluded that, since various County personnel were unavailable to make a final decision on the requests set forth in my August 6 letter to Messrs Brantley and Grieman, a three-day extension of time seemed to be an appropriate "stop-gap" remedy under the circumstances

I understand that, when the appropriate personnel are available at the county next week, I will receive a definitive answer to the requests set forth in my August 6 letter I certainly appreciate receiving the three-day extension, but my firm and the Society's geotechnical consultants still need more time to review the grading plans and the grading plan review before any of us will be in a position to submit comments on Draft EIR 566. Although the public review provisions of CEQA and the State CEQA Guidelines would suggest that we should not have been required to do so, we have already been compelled to make separate arrangements with, and to pay money to the developer's agent to obtain the right to review the grading plans for which a grading permit is being sought

However, even if we were willing to pay additional money for the right to gain access to the grading plan review by the soils engineer of record, we could not do so because that report has not even been completed as of this date. Of course, Appendix D to Draft EIR 566 expressly states that a geotechnical review of 40-scale grading plans will be prepared to accompany the grading permit application, but, for whatever reason, the grading plan review has not been finalized and is not available for any member of the public to even see it, much less study it in detail That really puts the Society, and all other members of the public, at a tremendous disadvantage in being able to adequately comment on the Draft EIR

Response

Although a grading plan application is the initiating activity which resulted in the determination that DEIR 566 be prepared, grading is only one of the issues being evaluated in the CEQA document. The County's CEQA action will consider the entire action, which in this case, is the development of a 705 unit manufactured housing subdivision and a small retail site on the project site

Sufficient detailed grading and related geotechnical information is available in DEIR 566, including information incorporated by reference from DEIR 561, prepared for the previous 318 unit proposal, in Section 4 2 of the DEIR, beginning on page 4-33. The information is based upon extensive geotechnical investigations conducted for the project site, which are

contained in the Appendices for DEIR 566 and DEIR 561

The geotechnical information contained in DEIR 566 meets standard practices of the County of Orange, which requires sufficient grading information for a planning decision. The planning level of detail includes the location of landslides, faults and other geotechnical hazards, the types of soil, and proposed grading concepts, including post grading topography, being proposed.

Standard 40 scale grading plans and accompanying more detailed geotechnical review documents and detailed hydrology reports will be reviewed and approved by the Subdivision and Grading Services Division, in consultation with various other divisions of the County including Environmental and Project Planning Services Division, prior to issuance of a grading permit If significant new impacts, not previously addressed, are discovered at that time, a new CEQA document will be required.

CCBG 2-2

Comment

As I explained to you in my earlier phone message, section 15146 of the State CEQA Guidelines requires that the degree of specificity to be found in Draft EIR 566 must be commensurate with the stage of development that is being evaluated In other words, since the construction of grading improvements is being analyzed in conjunction with a grading permit application, the *specific* details of the grading, and the impacts and mitigation measures associated therewith, must be addressed in the Draft EIR. Moreover, under section 15147 of the CEQA Guidelines, all technical data, maps, plans, etc, which are necessary to make a "full assessment" of the environmental impacts of the project must be set forth in the appendices to the Draft EIR, and such appendices "shall be *readily available* for public examination " (Emphasis added)

The California courts have not hesitated to enforce the above requirements by striking down EIRs which have omitted important technical information, even if the information was found to be available from other sources As stated by our own Fourth District Court of Appeal, "whatever is required to be considered in an EIR *must be in that formal report*; what any official might have known from other writings or oral presentations cannot supply what is lacking *in the report." (See, Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d.818,831, *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal App.4th 713,727.)

As the above authorities indicate, both the grading plans and grading plan review should have been (1) set forth in the Appendices to Draft EIR 566 and (2) readily available to all members of the public during the entire 45-day comment period. Since the County will not issue any grading permit to the developer without the grading plans and the grading plan review having been approved by County staff, these documents should not have been *excluded* from the CEQA review process However, since these documents were, in fact, omitted from Draft EIR 566 and have not been available at the County for public review, I think it only fair that

the county take quick action to correct these problems.

My proposal would be that the County request the developer to (1) complete the grading plans and the grading plan review and submit them to County staff as soon as possible and (2) revise Draft EIR 566 to not only include these documents as part of the Appendices, but also to adequately address them in Volume I of the EIR. Once the grading plans and grading plan review have been made "readily available" for public review, then a new 45-day period for submitting comments on Draft EIR 566 should be re-noticed.

Again, I apologize for burdening you with this issue in Ben de Mayo's absence, but I sincerely believe, Nick, that fundamental fairness, not to mention the strict dictates of the State CEQA Guidelines, requires the County to remedy the problems which have occurred as a result of the grading plans and grading plan review not having been available for public review prior to the expiration of the comment period on Draft EIR 566 The problems are easily corrected as I have suggested above, and I hope the County will do just that. Thank you for your courtesy and cooperation in doing what you can to make that a reality.

Response

Refer to response to comment CCBG-1.

3.5 COMMENTS AND RESPONSES - U.S. FISH & WILDLIFE SERVICE
Gail C. Kobvetich, Field Supervisor, USFWS, Ron Rempel, NCCP Program Manager, California Department of Fish and Game, August 8, 1997

USFWS-1

Comment

The U S. Fish and Wildlife Service (Service), California Department of Fish and Game (Department) and the Natural Community Conservation Planning (NCCP) program staffs (i e , "the Wildlife Agencies") have reviewed the above DSEIR. The project is located within the Southern Subregion Orange County NCCP Planning Area, near the border with the NCCP Central Subregion The preferred project proposed the phased development of 705 manufactured, single-family residential units on a 222 9-acre site near the intersection of El Toro Road and Live Oak Canyon Road, impacting a total of about 191 acres on site and 20 acres off site. About 14% of the project site is proposed to remain as open space

Biological resources on site include about 65 acres of coastal sage scrub (CSS), 14 acres of oak woodland, and about four acres of wetland vegetation communities The federally endangered Riverside fairy shrimp *(Streptocephalus woottoni)* is known to occur within at least seven wetlands (identified in the DSEIR as "ephemeral ponds") spread throughout the site. Several plant and animal species considered sensitive by the Wildlife Agencies occur (e.g., cactus wren *[Camphylorhynchus brunneicapillus]*) or may occur. The coastal California gnatcatcher (Polloptila californica californica) here after "gnatcatcher", a federally threatened species, is likely to occur on site based on the presence of CSS and gnatcatcher-occupied CSS in surrounding areas The Quino checkerspot butterfly (Euphydras editha quino), a federally endangered species, may occur as well

Response

Comment noted. The comment reiterates information contained in the DEIR. No response is required

USFWS-2

Comment

Along with the No Project/No Development Alternative ("Alternative 1") required by the California Environmental Quality Act (CEQA), there are four other alternatives presented in the DSEIR Alternative '1' would avoid any adverse environmental impacts to the project site. Alternative '2' proposes 150 housing units with a minimum lot size of 20,000 feet, disturbing more than 138 acres This would result in elimination of oak woodlands, CSS, and ephemeral ponds of which some rare and sensitive species are obligate residents. Noise decibel levels would increase and possibly affect wildlife in adjacent O'Neill Regional Park Alternative 3 proposes 100 single family units on a 31 7 acre portion of the site. This alternative avoids about 191 acres of habitat, thereby appearing to allow connection between open space areas

north, south, and east of the project site. However, this project alternative will impact two ephemeral ponds and CSS habitat Alternative '4' proposes 299 housing units, disturbing about 165 acres. A wildlife corridor, narrowing to 400 feet in width and going up a nearly vertical slope, is proposed to be bisected by a road Alternative '5' proposed 318 housing units within a development area of 113 acres, leaving about 100 acres in open space. The wildlife corridor would be the same as for Alternative '4' except that the minimum width would be about 700 feet. The proposed project appears to conflict with the earlier-adopted Foothill-Trabuco and Aliso Creek Corridor Specific Plans and also fails to describe adequate project design for maintaining corridor integrity of the Orange County NCCP Reserves. In evaluating alternatives 2-5, Alternative '3' would have the least environmental impact, but would nonetheless, substantially impact wildlife corridor integrity between subregional NCCP reserve areas in Orange County.

Response

Comment noted The comment reiterates information contained in the DEIR relating to alternatives and their effect on biological resources and wildlife movement No response is required

USFWS-3

Comment

The Wildlife Agencies have formally commented at different stages of the proposed project We have also met with the project applicant and their consultants, including a meeting at the project site on May 20, 1996. On June 29, 1994, the Service wrote a letter stating that project approval must be deferred until the Southern Subregional NCCP was finalized. In 1996, both agencies commented on the DEIR (No. 561) The Service letter stated that the location of this development within and adjacent to occupied habitat of rare species could compromise the NCCP reserve and its ability to function as a wildlife corridor through the direct and indirect impact of habitat destruction, fragmentation, noise, and lighting. Our comments were based upon a project alternative, similar to Alternative four, which provided more open space than the proposed preferred alternative presented in this DSEIR.

In general, the DSEIR does not adequately describe the biological resources of the project area The document only describes and analyzes impacts of the different alternatives in a superficial manner Referring to our joint Wildlife Agency letter of January 30, 1997, responding to the Notice of Preparation, at least eight of our requested information items were completely or partially ignored, without explanation Available data were not identified Further, the Initial Study (p 17) states that the scope of the EIR discussion will provide a "detailed discussion" and "[A] re-inventory of the existing unique, sensitive .. flora and fauna within the project site..." Also to be provided was "[A} detailed analysis of the project's impacts to wildlife movement, including mitigation measures to avoid or reduce those impacts " Neither of these items was adequately accomplished

Response

Individual letters were received from both the California Department of Fish and Game and the U.S. Fish and Wildlife Services on the previous DEIR (561) on March 25, 1996. DEIR 566 incorporates DEIR 561 by reference, including the analysis of alternatives. DEIR 561 contains an in-depth analysis of the effect of the proposed project and a range of alternatives on biological resources and wildlife movement As promulgated by the CEQA Statute and the CEQA Guidelines, the level of detail of analysis of identified alternatives in the DEIR is more cursory than for the proposed project Section 3 2 of the DEIR, on page 3-8 outlines the unique characteristics of a recorded tract map and the inability to alter physical design features of the recorded tract map to mitigate impacts Section 4.7.3 of the DEIR, beginning on page 4-143, documents the unavoidable adverse impacts associated with the proposed project, with mitigation measures outlined in Section 4.7.6 of the DEIR, beginning on page 4-137 Unavoidable adverse impacts, following the implementation of identified mitigation measures, are listed on page 4-154 Certification of the Final EIR will require preparation of a Statement of Overriding Considerations

A biological resource mitigation program will be prepared and submitted for review to both the California Department of Fish and Game and the U.S Fish and Wildlife Service, prior to the issuance of grading permits This will be accomplished through the 404/401/1603 permitting process The biological resource mitigation program will focus on eliminating or minimizing adverse impacts to biological resources through one or more of the following options: 1) Resource avoidance/preservation, 2) minimization of resource impact, 3) onsite habitat restoration, 4) onsite habitat relocation, 5) offsite habitat restoration and/or 6) impact fee programs/mitigation bank participation.

USFWS-4

Comment

The Wildlife Agencies offer the following specific information and recommendations to assist the County and the project applicant in planning for the preservation of sensitive wildlife species, habitats, and wildlife corridors within the proposed project area, and as a means to assist you in complying with pertinent statutes Page numbers refer to the DSEIR unless otherwise noted.

1-1 paragraph 2 and 4-41 paragraph 4 Both of these statements should read as "affect "

Response

The comment is noted. See Correction and Additions to the DEIR, contained in Section II

USFWS-5

Comment

4-41. exhibits 21, 22, 53. Interference with existing hydrology on site is shown with the construction of the preferred alternative. Impacts to "ephemeral ponds" not directly within the project footprint would also occur. Analyze these impacts further.

Response

A detailed analysis of project related impacts to onsite habitat, including ephemeral ponds, is contained in Section 4 7 3, beginning on page 4-143 of the DEIR. In addition, a detailed analysis of project related impacts to hydrology is contained in Section 4.3 of the DEIR, beginning on page 4-33 of the DEIR.

USFWS-6

Comment

4-43, last paragraph The Wildlife Agencies disagree with the conclusions that there would be " .. no unavoidable adverse impacts to surface or groundwater hydrology" and the water quality impacts would be ". . to less than significant levels" since current hydrological conditions support the existence of these areas. Implementation of the preferred alternative, including alteration of drainage patterns, would result in the direct loss of a minimum of seven ephemeral ponds on site

Response

Surface and groundwater hydrology and water quality are evaluated in detail in Section 4.3 of the DEIR Historical research has determined that the onsite ephemeral ponds were artificially created to support cattle grazing activities and are not directly dependent on surface or groundwater hydrology. The DEIR states, in Section 4 7 3 on page 4-145, that 0 6 acres of the 0.8 acres of ponds, or 7 of the 8 ephemeral ponds, would be directly impacted by implementation of the proposed project

USFWS- 7

Comment

4-110 The noise impact analysis is cursory and needs to refer to appropriate literature attributing impact to avian populations due to noise. Also, in the cases of "major airport runways" the analysis is biased by not considering adjacent land use changes in the context of the distribution of the coastal California gnatcatcher

Response

As stated in the noise analysis, in Section 4.6 of the DEIR, noise levels in the vicinity of the project are not expected to appreciably increase as a result of project implementation. Typical noise increases within 100 feet of major highways are calculated to be 1 decibel In addition, the conversion of MCAS El Toro to a civilian airport would result in reduced noise contours as compared to those shown in the DSEIR on Page 4-105 Earlier surveys prepared for DEIR 561, did not identify any gnatcatchers onsite

USFWS-8

Comment

4-119, paragraph 2. There was no Service protocol for presence/absence of gnatcatchers in 1993 and 1994

Response

The comment relating to gnatcatcher survey protocol is incorrect. Gnatcatcher surveys were conducted in 1993 and 1994 to applicable survey protocol in place at the time of the actual survey. These surveys did not identify any gnatcatchers onsite. Paragraph 2 on page 4-119 clearly states that additional surveys for gnatcatchers have not been conducted to current USFWS protocol, which were not established until May, 1997. Gnatcatcher surveys are required prior to the issuance of any grading permit See Section II, Corrections and Additions to the DEIR in this Document

USFWS-9

Comment

4-122, exhibit 50 Western spadefoot toad *(Scaphiopus hammondi)* is identified in the exhibit (and on page 4-137) as occurring on site; however, the discussion about amphibians on page 4-126 states that "[N]o amphibians were observed during the surveys of the site " Correct this discrepancy.

Response

The comment is correct and acknowledged The Western spadefoot toad was observed onsite in two of the ephemeral ponds. Please see Section II of this document, Corrections and Additions to the DEIR

USFWS-10

Comment

4-123, paragraph 2 Add that the NCCP refers to the Southern Orange County Subregion to distinguish this planning effort from other ongoing and completed efforts

Response

The comment is noted A discussion of the southern Orange County subregion will be incorporated into the discussion of the NCCP. Please refer to Section II of this document, Corrections and Additions to the DEIR

USFWS-11

Comment

4-125, "Ephemeral Ponds." The Wildlife Agencies disagree with the assertion that "all of the ephemeral ponds were artificially created a number of years ago . " Given the geological conditions of frequent landslides in the area, these wetlands could have been "slump" or "slope" ponds that underwent human modification at a later time These types of wetlands are known in both Orange and San Diego counties Further information is needed in the DSEIR regarding the origin of these wetlands in the context of the proposed impacts

As identified by Marie Simovich, Ph.D , a consultant for the former applicant, some of the on site wetlands contain a high diversity of aquatic invertebrates, strongly suggestive of the normal natural origin of these wetlands. Known to occur in at least some ponds with Riverside fairy shrimp and western spadefoot are cladocerans (e.g., e g., *Daphnia,* 2 or 3 species likely), copepods, ostracods (seed shrimp), and clam shrimp (*Cyzicus californicus).* Clam shrimp have a restricted distribution in coastal southern California Further information is needed in the DSEIR regarding aquatic invertebrates in the context of the proposed impacts

Response

Please see response to comment number USFWS-6 The ephemeral ponds have been located on the project site for many years, and used as a water supply associated with livestock grazing. Please refer to the discussion of ephemeral ponds on Page 4-125 of the DEIR

USFWS-12

Comment

4-126, Invertebrates, last sentence the DSEIR states that "[H]undreds of additional invertebrates are expected to use the site " No data are provided to support this statement. The Wildlife Agencies presume that this statement refers to the expected number of species, not the number of individuals. Please qualify and support the statement

Response

Please refer to Appendix H of the DEIR for a discussion and listing of onsite identified invertebrates The "Hundreds" statement refers to the number of invertebrate species expected to occur onsite, although not completely quantifiable.

USFWS-13

Comment

4-126, Amphibians. The last sentence erroneously implies that the distribution of amphibians is restricted to steep slopes No data are provided to support this statement The likely widespread distribution on site of western spadefoot toad, Pacific treefrog (*Hyla regilla*), and western toad (*Bufo boreas*) needs to be noted and discussed Please revise the discussion.

Response

The comment is acknowledged. The DEIR text is hereby revised to reflect this comment Please see Section II of this document, Corrections and Additions to the DEIR

USFWS-14

Comment

4-126, Reptiles. The correct name is the orange-throated whiptail lizard. Please correct this name throughout the document (e.g , 4-138, -147).

Response

The comment is correct and acknowledged and hereby incorporated into the DEIR Please refer to Section II of this document, Corrections and Additions to the DEIR.

USFWS-15

Comment

4-130, paragraph 1. The DSEIR states that the "[Southern] subregion will incorporate public lands of the Cleveland National Forest (CNF)." We suggest that this statement be removed or properly qualified since no additional conservation benefits would occur unless the U.S. Forest Service (USFS) is a signatory to an NCCP agreement The USFS is not participating in the Orange County Central/Coastal NCCP and has not indicated that it wishes to be a "participating landowner" in the Southern Subregion The DSEIR should not presume that future CNF management activities will be compatible with an NCCP

Response

The comment is noted The referenced statement pertaining to the Cleveland National Forest was intended to indicate the availability of habitat for NCCP and other related species. Please see Section II of this document, Corrections and Additions to the DEIR.

USFWS-16

Comment

4-130, paragraph 2. The DSEIR states that the gnatcatcher is not found onsite. Surveys to current Service protocol were not done. The last gnatcatcher surveys were done in 1994. Surveys should be conducted according to the Service protocol to determine the baseline status for the species. The results of these surveys will be needed to assess impacts, including the number of gnatcatchers subject to "take," in accordance with the Intra-Service Biological Opinion for the 4(d) rule.

Response

The comment restates information contained within the DEIR As part of the County of Orange approval process for Grading Application 960048, conditions of approval will be developed which will require the completion of current gnatcatcher surveys, conducted to current USFWS protocol, prior to the issuance of a grading permit Please refer to Section II, Corrections and Additions to the DEIR, for an additional mitigation measure which requires the gnatcatcher survey prior to the issuance of a grading permit

USFWS-17

Comment

4-130, paragraph 3 The correct name is the Central-Coastal Subregion.

Response

The comment is noted and the correction is hereby incorporated into the DEIR. Please refer to Section II of this document, Corrections and Additions to the DEIR

USFWS-18

Comment

4-130, paragraph 4 The DSEIR refers to the "disturbed nature of the site" in the context of fulfilling wildlife corridor "needs in the area " No additional information is provided to support this assertion. The existing landscape linkages and documented presence of mountain lion (*Felis concolor*), mule deer (*Odocoileus hemionus*), and coyote (*Canis latrans*), all of which would use a wildlife corridor within the project area, needs to be noted and discussed. Mountain lion movement through the area was not disclosed in the DSEIR. This study was undertaken by Paul Beier, Ph.D and reported in the scientific literature For further explanation of our request that these data be disclosed and discussed in the context of this proposed project, refer to item number eight in our joint wildlife agency letter of January 30, 1997.

Response

The statement in the DEIR relating to the disturbed nature of the site is correct and is discussed in detail in Sections 3.0 and 4.0 of the document. The statement in the DEIR indicates that the listed onsite conditions contribute to the conclusion that an onsite wildlife movement corridor would not *entirely fulfill wildlife corridor needs in the area.* However, it should be noted that EIR No. 553 for the Central-Coastal Subregional Natural Communities Conservation Planning (NCCP)/Habitat Conservation Plan (HCP) which was certified by the Orange County Board of Supervisors on April 16, 1996 identifies the area in the vicinity of the project site as one of the two primary wildlife linkages connecting the Central-Coastal NCCP/HCP and South NCCP study area (See Exhibit No. 11 attached)

In addition, the working group for the South Subregional NCCP program, which includes the project biological consultants, California Department of Fish and Game, U.S. Fish and Wildlife Service, and others, has determined that the Saddleback Meadows site and surrounding vacant lands in their existing condition are extremely important in providing regional wildlife movement and use connections to the Central subarea of the Central-Coastal NCCP/HCP. This determination was based largely on mountain lion studies conducted by Dr. Paul Beier and large mammal studies conducted by Doug Padley for the Foothill-Trabuco Specific Plan together with the fact that the proposed project area is located immediately adjacent to the Central-Coastal reserve system within the Aliso Creek Corridor portion of Whiting Ranch Regional Park and the Southern California Edison parcel These areas were included in the reserve system to ensure that regional connectivity is maintained between the two subregions

USFWS-19

Comment

4-131, exhibit 51. This exhibit is difficult to interpret since it was originally a color map of larger size. For example, gnatcatchers and cactus wrens are noted in the legend but are invisible on the exhibit We suggest that the exhibit be redone to show only relevant information

Response

Exhibit 51, entitled *Proposed NCCP Southern Subregional Planning* Area, depicts the boundary of the planning area and several biological features related to the NCCP Planning effort The scale of the exhibit does not allow every detail to be shown in an 11x17 format

USFWS-20

Comment

4-133, paragraph 3 The DSEIR says that "The fragmented nature of much of the coastal sage scrub onsite makes it low quality " However, the current gnatcatcher status is unknown

and most wildlife surveys were out of date, having been conducted in 1993 and 1994 The paragraph continues by stating that the steep slopes support the highest diversity of animal species, but no data are provided to support this statement

Response

The statement in the DEIR is correct. The highest quality and least fragmented coastal sage scrub plant communities, and the highest CSS related animal species diversity, are located on the steepest portions of the project site. The DEIR includes mitigation measures which require updated gnatcatcher surveys to be completed prior to the issuance of any grading permit.

USFWS-21

Comment

4-133, paragraph 3 The site also contains a habitat linkage, also qualifying it as at least "intermediate value" according the Evaluation Logic Flow Chart.

Response

The comment restates information contained within the DEIR. No response necessary.

USFWS-22

Comment

4-136, exhibit 53. One pond identified as a "potential mitigation area" is in the project footprint of the preferred alternative, as shown on exhibits 18 and 22. Since this area would be under housing and infrastructure and no longer in its present condition, please correct this discrepancy

Response

The limit of development line shown in exhibit 53, in the vicinity of the subject pond, is shown in the wrong location Exhibit 7, Site Plan shows the correct relationship of the proposed grading limits to the pond proposed for preservation. Please see Corrections and Additions to the DEIR, revised Exhibit 53

USFWS-23

Comment

4-137, paragraph 3 The western spadefoot toad is a California State Species of Concern

Response

The comment is noted. Please refer to Section II of this document, Corrections and Additions to the DEIR.

USFWS-24

Comment

4-137, -139, and -148 state that the site "must be considered occupied by gnatcatcher until proven otherwise." This is inconsistent with the statement on 4-130 that the gnatcatcher is not found on site. Correct and clarify this discussion.

Response

The statement is correct, given the fact that current gnatcatcher surveys have not been conducted in accordance with USFWS protocol. The onsite habitat must be considered occupied, until such time as a current survey, conducted to USFWS protocol standards prove otherwise The statement indicating that no gnatcatchers have been identified onsite refers to the surveys completed in 1993 and 1994 The DEIR also contains a mitigation measure which requires an updated gnatcatcher survey and compliance with any protocol conditions prior to the issuance of any grading permit Please see Section II of this document, Corrections and Additions to the DEIR

USFWS-25

Comment

4-139. The distribution information for the gnatcatcher is incomplete. The species occurs in portions of Ventura, eastern Los Angeles, and San Bernardino Counties. The assertion regarding limited slope characteristics is not valid. Gnatcatchers occur on steep slopes, using them for nesting, foraging, and movement

Response

The comment is noted Please see Section II of this document, Corrections and Additions to the DEIR The DEIR contains mitigation measures which require updated gnatcatcher surveys prior to the issuance of any grading permit

USFWS-26

Comment

4-140. The wildlife agencies disagree that focused surveys for the Quino checkerspot butterfly are not warranted The limited surveys accomplished do not support the assertion that the probability of occurrence is "low" Appropriate habitat (CSS, chaparral, and

grassland) exists within the project site. Surveys consistent with the Service 1997 protocol should be completed.

Response

Required surveys for the Quino checkerspot butterfly, conducted to USFWS protocol are acknowledged, and will be conditioned as a requirement prior to issuance of a grading permit. Please see Section II of this document, Corrections and Additions to the DEIR

USFWS-27

Comment

4-141. The correct scientific name for the northern harrier is *Circus cyaneus.* It is properly referred to as a raptor. The accepted common name for *Agelaius tricolor* is the tricolored blackbird The "C2 (category two)" category was discontinued by the Service in February 1996. The gnatcatcher is a California State Species of Concern

Response

The comments are noted Please refer to Section II of the document, Corrections and Additions to the DEIR

USFWS-28

Comment

4-144. There is no analysis of connectivity loss in this discussion of the project in relation to the NCCP Findings However, 4-148 states that "[T]he project, as currently proposed, may hinder or preclude the preparation of the southern subregional preserve [sic], due to restricted wildlife movement " Further on page 4-130, paragraph 3 it says, "the project site occupies a linkage area between the Central and Southern NCCP Subregional preserves [sic], where a wildlife corridor is needed " Please clarify and further analyze this crucial issue We suggest explanatory text with an exhibit or exhibits specifically rendered

Response

The comment is noted. Project related impacts to wildlife movement and connectivity are discussed throughout Section 4.7 of the DEIR. The statement listed on page 4-144 of the DEIR pertaining to connectivity is part of a listing of NCCP findings that must be satisfied prior to allowance of interim take of coastal sage scrub habitat This information has been provided in the DEIR to outline requirements in the event that interim take is required Impacts to wildlife movement have been identified as unavoidable adverse impacts in the DEIR

USFWS-29

Comment

4-145, "Ephemeral Ponds " The use of acreage by itself is inappropriate since it does not sufficiently disclose the impacts of the preferred alternative The wildlife agencies suggest that the number of ponds also be used as a measure of impact. From the diagrams in the DSEIR, it appears that seven of the eight ponds identified as supporting Riverside fairy shrimp would be directly within the project footprint The other pond would be subject to edge effects and adverse impacts to water quality. This impact is not apparent when only the acreage figure is considered.

Response

The comment is noted Please see response to USFWS-6 Impacts to ephemeral ponds have been identified in the DEIR as unavoidable and adverse

USFWS-30

Comment

4-147, Western spadefoot toad. The DSEIR states that the population is small in size. However, no data are provided to support this statement such as the results of a scientifically valid population survey In the absence of data, we suggest that the statement be eliminated.

Response

Previous onsite surveys have found that the Western spadefoot toad is of limited distribution and population size

USFWS-31

Comment

4-148, Wildlife Movement. The statement "It can not [sic] be assumed that wildlife would be able to move through the project site..." should be further explained. Further explanation is needed since it is known that there would be the virtual elimination of wildlife and their movements in a high density residential development as the preferred alternative proposes

Response

The referenced statement backs up the statement that implementation of the project site would directly impact wildlife movement Even though some wildlife may move through the proposed project, without a recognizable wildlife movement corridor it cannot be assumed that any wildlife will move through the proposed project, due to the physical design of the proposed project wildlife movement impacts have been cited in the DEIR as unavoidable

adverse impacts.

USFWS-32

Comment

4-151, -152, Conceptual Mitigation Program. The last sentence on 4-151 states that the program was developed based on input from the wildlife agencies. Regarding the mitigation ratios presented, the DSEIR provides no rationale to support these ratios Further, the position of the Wildlife Agencies is that the ratios are unjustified and inappropriately low in relation to the proposed impacts, given other mitigation agreements.

Response

The mitigation ratios have been based upon the level of impact to habitat types, the relative quality of onsite habitat and other similar mitigation projects in the vicinity of the proposed project. It should be noted that any habitat mitigation requirement will need to be accomplished offsite, due to the recorded nature of the tract map.

USFWS-33

Comment

6-3, table 39. The "no project" alternative states that there would be a continuation of grazing impacts Include that this is a discretionary landowner activity, otherwise unrelated to the proposed project.

Response

The No Project alternative is included in compliance with CEQA Statutes and Guidelines. Implementation of the No Project alternative, assumes that the project site would continue to exist in its current condition, and use as open space utilized for livestock grazing

USFWS-34

Comment

6-4, paragraph 1. The DSEIR states that "[o]going degradation of onsite biological resources related to cattle grazing operations would continue to occur " This degradation should be further described. For example, on our May 20, 1996 site visit, Wildlife Agency representatives observed cattle within some of the onsite wetlands We also observed apparently free-ranging horses nearby Further discussion of the presence of livestock and horses is needed in relation to impacts to Riverside fairy shrimp, other invertebrate species, and CSS. Crushing of fairy shrimp "cysts" and adverse changes to water quality are likely to occur within ponds subject to use by cows and horses. Literature references showing CSS impacts due to grazing should also be referred to and discussed.

Response

Livestock grazing has been ongoing onsite for several decades, and the current condition of onsite vegetation is directly related to this ongoing activity Onsite ephemeral ponds have also been in place for several decades and are a direct result of livestock grazing activities. These conditions are discussed in Sections 2.0., 3.0 and 4.7 of DEIR 566.

USFWS-35

Comment

6-4, and continuing The discussion of biological resources impacts is cursory, allowing extremely limited comparison opportunity among the alternatives A detailed matrix chart of alternatives versus type and amount of habitat impact (e g., CSS, Riverside fairy shrimp) would help to synthesize the data However, it appears that alternative three, the 100 unit alternative on 32 acres, would directly avoid seven of the eight ponds occupied by Riverside fairy shrimp, most of the loss of CSS habitat, as well as minimize impacts to wildlife movement.

Response

DEIR 566 assumes worst case scenarios with regard to biological resources although the document relies upon previous surveys, i.e , 1993 and 1994; the DEIR assumes the presence of various species habitat on the project site. Impact analysis contained within the Alternatives Section of the DEIR, is less detailed than for the analysis of the proposed project, and along with the detailed site plans provided for each alternative, allows for a specific comparison of biological impacts. The comment relating to Alternative three is correct and is acknowledged.

USFWS-36

Comment

8-1. The Inventory of Unavoidable Adverse Impacts should include the amount of CSS loss and the likely "take" of gnatcatchers

Response

The discussion on Page 8-1 of the DEIR, includes the direct loss of coastal sage scrub Please see response to comment USFWS-24, and Section II of the Corrections and Additions to the DEIR document

USFWS-37

Comment

Appendix C, Notice of Preparation (NOP), page 3. Note that our joint Wildlife Agency NOP commented about "Plant/Animal Life."

Response

The comment has been noted

USFWS-38

Comment

Appendices D (conceptual Wetland Mitigation Plan) and E (Conceptual Upland Mitigation Plan) were missing from Appendix "H", the Biological Resources Assessment prepared by Sweetwater Environmental Biologists, Inc The Assessment is a draft, dated March 20, 1997. If an updated version is available, include it in the revised DSEIR

Response

Appendix H does not include a Conceptual Wetlands Mitigation Plan or a conceptual Upland Mitigation Plan. These documents were associated with the project evaluated in DEIR 561.

USFWS-39

Comment

In conclusion, the DSEIR is inadequate Major revisions and additions are needed, including completion of updated field surveys and a literature search For example, the gnatcatcher discussion should include a description and analysis of the regional distribution of CSS, gnatcatcher, and cactus wrens, in relation to the project area Vegetation maps and species locations in both digitized and hardcover format are available from the County of Orange.

The Wildlife Agencies anticipate that the issues discussed above will be included and addressed in any additional CEQA documents and be presented to the Wildlife Agencies for review and comment Until the impact assessment and mitigation recommendations are revised to respond to our concerns, the Wildlife Agencies recommend against certification of the DSEIR as currently proposed.

Response

Please see response to comments USFWS-1 through USFWS-38

USFWS-40

Comment

The Wildlife Agencies appreciate working with the County on NCCP conservation planning issues. Lands within the proposed project area are important in conservation planning for the Southern Subregion NCCP Reserve in Orange County An improperly implemented project would permanently destroy the integrity of the linkage between the Subregional reserves. If you have any questions or comments please contact Liam H Davis, NCCP Associate Wildlife Biologist (Department) at 619-467-4207 or Robert Hames, Fish and Wildlife Biologist (Service) at 760-431-9440.

Response

The comment is noted. Please see response to comments USFWS-1 through USFWS-38

3.6 COMMENTS AND RESPONSES - CITY OF MISSION VIEJO
Karen Steele Verlaan, Senior Planner, August 11, 1996

CMV-1

Comment

The City of Mission Viejo is in receipt of the subject Draft EIR and understands the project as proposed to consist of phased development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure, on a 222 23 acre site on the easterly site of El Toro Road in the unincorporated territory of the County of Orange. The gross residential density is 3.17 dwelling units per acre, with minimum lot sizes of 2,630 square feet Fourteen (14%) percent of the project site is proposed to remain in undisturbed, natural open space and 57.6% of the site will remain in total open space In addition to the residential component, the project also proposed eight private park sites, regional riding/hiking trail connections, and a construction of a water tank site dedicated to and accepted by the Trabuco Canyon Water District. Project implementation requires approval of grading plan The grading permit application (GA960048), the project subject of this Draft Environmental Impact Report, is based on Tract 10692, which was recorded December 16, 1988

The project site is located within the Foothill/Trabuco Specific Plan and the Aliso Creek Corridor Specific Plan, and is located approximately one-half mile south of the El Toro Road/Live Oak Canyon Road intersection. Implementation of the proposed project would directly effect 191 39 acres of the project site, including remedial grading and fuel modification requirements and 19 77 acres offsite, for a total impact area of 211 16 acres.

A total of 2 6 million cubic yards of conventional grading and 8 9 million cubic yards of remedial grading would be required to implement the project

Response

The comment is noted and restates information contained within the DEIR. No response is required

CMV-2

Comment

The City of Mission Viejo has the following comments on DEIR 566 for the Saddleback Meadows Project

General Comments
The city of Mission Viejo is concerned with the numerous unavoidable adverse impacts of the subject project These impacts are as follows:

1. Gross land use compatibility with (1) O'Neill regional Park, (2) the Ramakrishna Monastery; and (3) St. Michael's Abbey;

2. Major landform alteration /modification including cut and fill slopes up to 120 ft. in height,

3. Loss of 154 13 acres of onsite habitat and reduction of native habitats and sensitive and non-sensitive species dependent on those habitats, including (1) southern sycamore woodland, (2) coast live oak woodland, (3) coastal sage scrub, (4) mulefat scrub, and (5) ephemeral ponds;

4. Project and cumulative contribution to regional adverse air quality conditions, since the project is located in a non-attainment area with incremental increase in air pollution as a result of vehicle emissions,

5. Increased traffic and urban activity resulting in increased noise in the area:

6. Loss of Riverside fairy shrimp habitat (ephemeral ponds) and individuals, a federally listed endangered species; and

7. Urban landform visual impacts to (1) O'Neill Regional Park, (2) Ramakrishna Monastery, and (3) St Michael's Abbey

Response

The comment is noted and restates impact information quantified and analyzed in the DEIR. Please refer to Section 8.0 of the DEIR, Inventory of Unavoidable Adverse Impacts

CMV-3

Comment

Transportation Comments

1. DEIR Transportation Analysis

There appears to be a major discrepancy in the Draft EIR's discussion and analysis of the transportation/circulation impacts resulting from the proposed project This discrepancy needs to be reconciled and corrected in a revised Draft EIR document.

As background, transportation/circulation impacts are summarized and presented in Volume 1 of DEIR 566 The basis of the Volume 1 discussion is stated to be a project-specific traffic study that is referenced and included in Volume 3 of Draft EIR, Appendix F

Volume 1 states that the proposed project will generate 6,220 trip ends per day, with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. In contrast, the traffic study appendix states that the proposed project will generate

8,340 trip-ends per day, with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour This represents a difference of (1) more than thirty percent on a daily basis; (2) more than fifty percent for the AM peak hour analysis, and (3) thirty percent for the PM peak hour analysis.

This inconsistency is carried forth into the specific tables and exhibits of the respective document, where average Daily Traffic forecasts from Existing through Year 2000 to buildout differ between the two documents. For example, page 4-56 of Volume 1 states that the project ADT's along El Toro Road in the vicinity of the site do not exceed 30,000 vehicles per day However, the traffic study in Appendix F Volume 3, identified that segments of El Toro Road do exceed 30,000 trips per day easterly of the Foothill Transportation Corridor.

Also, even though there is inconsistency between the two volumes on reported ADT and peak hour trips, the Intersection Capacity Utilization (ICU) and Levels of Service (LOS) calculations seem to be similar between the two documents. A Revised Draft EIR needs to explain which trip generation was used for the ICU Levels of Service calculations, and the DEIR analysis needs to be carefully reviewed to accurately present the transportation impacts of the proposed project In particular, the City of Mission Viejo will be reviewing the specific impact of project trips on the El Toro Road/Glenn Ranch Road intersection and the Marguerite Parkway/El Toro Road intersection, to determine any potential impacts and require any mitigation to maintain a Level Service "D" performance standard, as required by the Measure M Growth Management Program

Response

The comment is noted. During the preparation of the DEIR, numerous meetings were held between the County of Orange, Traffic Engineering Division and the project applicant to discuss the trip generation rate for manufactured housing, since it is not a standardized land use resulting in a typical trip generation factor. The statement in Section 4 4.3 of the DEIR, on Page 4-52, under *Traffic Impact Modeling* is a typographical error, based on an outdated generation rate, and should read as follows: *The proposed project is projected to generate approximately 8,340 trip-ends per day with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour.* Please refer to Section II of this document, Corrections and Additions to the DEIR All other traffic impact assessment data is consistent with the actual technical traffic study contained in Appendix F of the DEIR.

CMV-4

Comment

2. Project Trip Generation·

The project traffic study identifies a residential trip distribution assumption wherein twenty-five percent of the daily traffic would enter/leave the project site using El Toro Road north of the project entrance, and twenty percent continuing along Santiago Canyon Road. The city of Mission Viejo believes this assignment is high. Please clarify the land uses that exist or are proposed north of the project site that would cause one-quarter of the project daily trips to

use this segment of El Toro Road, versus using El Toro Road south of the project site to access freeways, major highways, and public facilities A review of the Draft EIR school assumptions, for example, shows that school attendance is programmed for facilities located in Mission Viejo, Rancho Santa Margarita, and Trabuco Canyon.

The assumptions used in the project trip distribution would have a resultant impact on analyzed intersections south of the project entrance to El Toro Road, and in particular would increase Intersection Capacity Utilization (ICU) calculations if a greater percentage of project trips were assigned southerly along El Toro Road

Response

The distribution of project related traffic generation onto the surrounding circulation system is based on a variety of factors including existing travel patterns near residential areas and has been reviewed and approved by the County of Orange, Traffic Engineering Division. As this is a planning document, the distribution is of necessity and the study assumes that the majority of traffic will be oriented to the south/west of the site

CMV-5

Comment

3. El Toro Road·

El Toro Road is classified as a Major Arterial Highway on the Orange County Master Plan of Arterial Highways (MPAH). A Major Arterial is defined as a six-lane highway with a divided median The City of Mission Viejo is currently preparing improvement plans to construct El Toro Road to its master plan configuration of a *six-lane, Major Arterial facility*

Although not specifically stated, the Draft EIR seems to indicate that El Toro Road should be reclassified from a six-lane facility to a four-lane facility, The City of Mission Viejo offers the following comments:

a. The reclassification of El Toro Road from a six-lane Major Arterial to a four-lane Primary Arterial requires the County of Orange to process and MPAH amendment, with the amendment ultimately being approved by the Orange County Transportation Authority (OCTA) board of directors

It is the City's understanding that such an amendment has not yet been filed with OCTA Please clarify how the timing of the El Toro Road MPAH reclassification, if proposed by the County of Orange, juxtaposes with the approval of Saddleback Meadows project application(s). Since the DEIR serves as an environmental assessment for the Saddleback Meadows recorded tract map, please clarify whether the right-of-way for El Toro Road has already been reserved for an ultimate six-lane or four-lane facility

b The OCTA MPAH guidance manual identified that a multi-jurisdictional, cooperative process will be pursued with any MPAH amendment that affects more than one jurisdiction

In conjunction with that process, technical data will be prepared and reviewed by Growth Management Area (GMA) forums to determine whether there is consensus on the proposed amendment. Also in conjunction with that process, and environmental assessment of the MPAH amendment must be completed.

Recognizing that the Saddleback Meadows DEIR is being processed in advance of a requested MPAH amendment, a multi-jurisdictional consensus of the El Toro Road reclassification has not yet been achieved. Technical issues may surface through the MPAH cooperative study process that have not yet been identified in the Saddleback Meadows DEIR. Further, inconsistencies on project daily traffic volumes are already present in the Draft EIR The City of Mission Viejo recommends that the transportation analysis in the Saddleback Meadows DEIR should *not* serve as the environmental documentation for the MPAH reclassification of El Toro Road, unless agreed to by representatives of the cooperative study process.

c The City of Mission Viejo continues to retain El Toro Road, within its jurisdictional boundaries, as a six-lane Major Arterial facility. The jurisdictional boundary between the City of Mission Viejo and the County of Orange generally lies immediately east of the Glenn Ranch Road intersection at El Toro Road

Response

Year 2020 projected traffic conditions, with the implementation of all circulation system improvements outlined in the DEIR, indicate that El Toro Road, widened to four (4) through travel lanes north of the Foothill Transportation Corridor would result in all intersections with El Toro Road operating at level of service D or better It is understood that redesignation of El Toro Road from a Major Arterial (6 lanes) to a Primary Arterial (4 lanes) requires an amendment to the MPAH This amendment has not been filed by the County to date Certification of this EIR as well will not preclude the ability to construct El Toro Road to its MPAH designation.

CMV-6

Comment

4 Glenn Ranch Road/El Toro Road Intersection Improvements:
In reviewing the Intersection Capacity Utilization (ICU) projections for the Glenn Ranch Road/El Toro Road intersection, the City of Mission Viejo is concerned that the Glenn Ranch Road/El Toro Road intersection could become a bottleneck as one transitions, north to south, from a four-lane facility to a six-lane facility. This intersection must be guaranteed for maximum feasible improvement to insure that Level of Service "D" performance standard is maintained, in compliance with Measure M Growth Management Program requirements.

The County of Orange will need to be an active participant in the maximum feasible improvement to the Glenn Ranch Road intersection, since

a The DEIR identifies that seventy-five percent (75%) of the project trips will use this intersection, and the intersection will experience Levels of Service F sometime between Year 2000 and Year 2020 performance unless roadway improvements are appropriately phased The timing of El Toro Road improvements is important because the project traffic study identifies that El Toro Road can remain a two-lane facility through project build-out

b. The County of Orange will be deeded a 7 710 acre parcel for open space purposes from the Mission Viejo Company This parcel (a portion of Parcel 4 of PM 89-115) is located south of El Toro Road and immediately west of the Glenn Ranch Road intersection (see attached Exhibit). The City of Mission Viejo will require that appropriate rights-of-way be secured along the open space parcel frontage to achieve a major arterial cross-section and intersection improvements to Glenn Ranch Road that meet projected traffic demand.

Response

The comment is noted

CMV-7

Comment

5. El Toro Road Mitigation Measure AM4-16
Mitigation Measure AM4-16 states that "north of the Foothill Transportation Corridor, El Toro Road can accommodate projected traffic volumes with the proposed project on four travel lanes divided by a raised to striped median. Implementation of a full Major Arterial cross-section is not needed to serve future traffic volumes. This alternative section represents a modification of the typical cross-section for a Primary Arterial. Appropriate transitions would be required between this cross-section and other modified cross-sections along El Toro Road south of Glenn Ranch Road "

As identified above, the City of Mission Viejo is improving El Toro Road as a six-lane facility from the FTC to Glenn Ranch Road, consistent with its MPAH arterial designation. The City of Mission Viejo recommends that Mitigation Measure AM4-16 include reference that the City of Mission Viejo review and participate in the County of Orange's development if improvement plans for El Toro Road, to insure that:

- El Toro Road is phased and constructed to achieve a roadway cross-section that effectively transitions to the proposed interim two-lane facility;
- El Toro Road can be transitioned from a six-lane facility in the City of Mission Viejo to a four-lane facility in county unincorporated area, while achieving a Level of Service "D" performance standard at the Glenn Ranch Road/El Toro Road intersection through Year 2020

Response

Please refer to response CMV-5 Additionally, improvement plans that are adjacent to City boundaries will be forwarded to the City for review and comment

CMV-8

Comments

6. Inventory of Assumed Circulation Improvements.
The project traffic study--Appendix F--identified a Year 2020 scenario in which levels of service at a City of Mission Viejo intersection is projected at Level of Service "F" at Marguerite Parkway and El Toro Road The city's performance standard is Level of Service "D".

The Draft EIR should be revised to include a mitigation measure that requires the applicant to assess, calculate and provide a fair-share contribution to transportation/circulation improvements at all impacted City of Mission Viejo intersections

In addition, the County of Orange proposed, thorough this project (DEIR), the Year 2020 improvement program of northbound dual right turn lanes at the Marguerite Parkway (NS)/El Toro Road (EW) intersection This proposed improvement is not acceptable to the City of Mission Viejo The City of Mission Viejo does not have any intersection with dual right-turn lanes, and recommends that the Draft EIR analyze an alternative improvement program that will mitigate the Level of Service "F" condition

Response

The proposed project will be conditioned to contribute to several roadway fee programs as outlined in Table 12 on Page 4-51 of the DEIR Total road impact fees amount to $ 8,044 per dwelling unit and $8.34 per square foot of commercial land use

Dual right turn lanes at the intersection of El Toro Road and Marguerite Parkway is an acceptable mitigation to mitigate unacceptable turning movement volumes and related intersection level of service values Other mitigation measures, which would result in similar mitigation of adverse turning movement volumes and intersection level of service values include the addition of a free right turn lane and/or application of emerging intersection signalization control technologies.

CMV-9

Comment

This concludes the City of Mission Viejo comments on the Saddleback Meadows Project Draft Environmental Impact Report (DEIR 566). The City of Mission Viejo is also reviewing the June 1997 Draft EIR No 565.for the Live Oak Plaza Project As a result of our technical

review of the Draft EIR, the City may raise additional comments or request clarification on certain issues such as transportation and other areas where there may be inconsistencies in findings or analyses Thank you for the opportunity to comment on the document The City would like Response to Comments on the DEIR as soon as they are available.

Response

The comment is noted The City of Mission Viejo will be provided with a copy of the Response to Comments document in accordance with CEQA requirements.

3.7 COMMENTS AND RESPONSES - BOWIE, ARNESON, KADI, WILES & GIANNONE, August 11, 1997

BAKWG-1

The Trabuco Canyon Water District is in receipt of the above-referenced Draft Subsequent Environmental Impact Report (the "DEIR") prepared in regard to the Saddleback Meadows Recorded Tract Map No. 10692, Grading Application GA960048 (the "Project") Our firm represents the District as general legal counsel The District, having reviewed the DEIR, and having consulted with us, has requested our firm to provide your office with the comments set forth herein. It is the District's understanding that the Project will involve the phased development of 705 manufactured single family residential units and a 1 7 acre neighborhood commercial center on a 222 23 acre site. This seems to correspond, generally, to the final tract map (Tract 10692) approved by the County of Orange (the "County") in 1988. However, the District has not been provided with updates of the plans for the Project and, as such, all of the comments submitted with this letter should be interpreted in that light

The purpose of this letter is to provide to the County, on behalf of the District, various comments and matters relating to the Project, the potential impacts of the Project on the facilities of the District and the District's requested mitigation measure.

Response

The comment indicates that Bowie, Arneson, Kadi, Wiles & Giannone represents the Trabuco Canyon Water District relative to providing comments on DEIR 566 No response is necessary

BAKWG-2

Comment

Request for Notices

Pursuant to the provisions of the California Environmental Quality Act ("CEQA") and Public Resources Code Section 21092 2, the District hereby requests that copies of all notices and other documents mailed in relation to the above-referenced Project (specifically including, but not limited to, environmental review notices) be furnished both to the District and the undersigned. If there are any fees and charges required for the provision of such notice(s), please provide our office with an invoice for such costs and we will reimburse the appropriate County department This request for notice specifically includes, but is not necessarily limited to, notices of all hearings, proposed actions to be taken with regard to the development process and, in particular, any Notice of Determination prepared, furnished or filed with regard to this Project.

Response

The comment was noted Bowie, Arneson, Fadi, Wiles & Giannone was added to the DEIR 566 mailing list.

BAKWG-3

Comment

Background Information

We have reviewed various references to the Trabuco Canyon Water District, and the District's water and wastewater (sewer) facilities contained within the DEIR. In regard to such matters, we would note the following additional facts which are important for a full and complete understanding of the District's background in providing the comments set forth below The DEIR correctly notes that two improvement agreements were entered into between the prior owner of the property and District dated September 21, 1988 (see further discussion below) It is relevant to note that in connection with those improvement agreements two performance bonds were posted in order to secure the construction of the relevant water and sewer facilities as required by the terms of those agreements.

The DEIR correctly notes that the District's Capital Improvement Charges ("CICs"), based on 705 residential units, were paid to the District Those Capital Improvement Charges are levied as part of the District's master financial and facilities planning Funds from the CICs were expended on various District-wide and master planned facilities is order to be able to furnish water service and water capacity to the property within Tract 10692 (the "Property")

Wastewater (sewer) treatment capacity was purchased in the Santa Margarita Water District ("SMWD") Chiquita Wastewater Treatment System by way of a pass-through payment made by the former property owner to the District and then paid to SMWD It should be noted that the SMWD Chiquita Wastewater Treatment System is owned and operated by SMWD, and not TCWD. Specified wastewater treatment capacity (based on 705 residential units) was paid for in the Chiquita system and is now available to provide wastewater treatment service for the Property The major wastewater trunk sewer and downstream lift station facilities were financed for the benefit Property by means of assessment district proceedings pursuant to the relevant provisions of the California Streets and Highways Code Assessment district No 5R of the Trabuco Canyon Water District is currently in place and levies assessments on the Property (as well as other properties within the boundaries of the Assessment District) The major trunk sewer and downstream lift station facilities financed through the Assessment District proceedings (and bonds issued by Assessment District No 5R secured through the levy of assessments) have been constructed These are available to provide service to the property based on 705 residential units. However, the related facilities for this Property, identified in the improvement agreements, were not financed and have not been constructed as of this date.

As noted above, the District entered into onsite and master plan improvement agreements relative to the Property (collectively the "Improvement Agreements") copies of the Improvement Agreements are attached to this letter as Attachments "A" and "B" and incorporated herein by this reference The Improvement Agreements were entered into pursuant to TCWD's Rules and Regulations which require improvement agreements to be entered into before the District will authorize, or sign off on, any tract map. Correspondingly, TCWD's approval of Tract Map No 10692 was expressly conditioned on the terms and conditions of the Improvement Agreements. The Improvement Agreements were subsequently assigned, with the District's consent, to a subsequent owner of the Property.

Subsequently, the prior owner of the Property (to whom the Improvement Agreements had been assigned) filed for bankruptcy with the Federal Bankruptcy Court As a result of prolonged bankruptcy proceedings, the Improvement Agreements, and the corresponding performance bonds, were rejected by the debtor and this action was apparently sustained in the bankruptcy court Corresponding, the Improvement Agreements are now of questionable enforceability and the performance bonds have lapsed. Any building or District service assumptions based on the terms of those Improvement Agreements, or dependent on them, are thus suspect until new agreements with the District are reached In this regard we would specifically note that the District's Rules and Regulations (see Government Code Section 31024) require improvement agreements to be into in order for the District to approve tract maps and for the District to provide water and wastewater service to any property within its boundaries The District previously requested of California Quartet (the then-property owner) to undertake negotiations relative to entering into new improvement agreements relative to the Property No response to those entreaties has been received by the District

Response

The comment relating to the Chiquita Canyon Wastewater Treatment System being owned by the Santa Margarita Water District is acknowledged. It should be noted that the Chiquita Canyon Wastewater Treatment Plant has been constructed and has been operational for several years. Please refer to Corrections and Additions to the DEIR, contained in Section II of this document. The applicability and enforceability of existing improvement agreements between Trabuco Canyon Water District and the applicant are not applicable to a discussion of the environmental effects of the proposed project

BAKWG-4

Comment

Water Distribution Facilities

As referenced above, the District has undertaken construction and completion of various master plan facilities in order to provide adequate water and water capacity to the Property As noted, the District's Capital Improvement Charges were previously paid and satisfied in the identified amount District master plan facilities have been sized based on the Property including 705 residential units However, the District would note that it has not been

provided with current improvement plans and therefore cannot state, at this time, that all necessary water capacity for non-residential and irrigation needs is available A re-evaluation of the Project, form an engineering perspective, by the District would be appropriate before definitive plans are finalized.

Also noted above, the Improvement Agreements relative to both master plan and in-tract water distribution facilities, including, but not limited, the water booster station identified in the DEIR, have lapsed and security for those agreements was rejected by action of the bankruptcy court The specific facilities necessary in order to provide water transportation and distribution service within the boundaries of the Property were identified in those two (2) Improvement Agreements and are specifically enumerated in the improvement plans which were filed with the District and in the cost breakdowns which are included as part of the master plan agreement exhibits Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the water transportation and distribution facilities necessary in order to provide water service to the Property are designed, constructed, installed, funded and dedicated to the District as required under the District's Rules and Regulations and the previous improvement plans, the District will not be able to undertake to provide water service to the Property The inability of the District to provide water transportation and distribution within the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to water transportation and distribution facilities, the following mitigation measures be added to the DEIR

1. Prior to undertaking construction of the Project the applicant shall enter an improvement agreement(s) with the District to provide for the design, construction, installation, funding and dedication of all necessary master plan and in-tract water transportation and distribution facilities (Specifically including, but not limited to, a water booster station) as required under the District's Rules and Regulations and the tract map approval for Tract No 10692, and

2 Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed, at its cost and expense, all design construction, installation, funding and dedication of master plan and in tract water transportation and distribution facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692.

Response

The referenced mitigation measures which are contractually required by the previous improvement agreements are reaffirmed as mitigation measures and were incorporated into DEIR 566 .

BAKWG-5

Comment

The comments with regard to water distribution facilities, above, are generally applicable relative to water storage facilities in the context of the District. Water storage facilities are important for the reasons of reserve water capacity, cost efficiency, fire fighting, emergency supply and system balancing

Pursuant to determinations by the District's Board of Director, and the Rules and Regulations of the District, developers of property within the District's boundaries are required to either build and dedicate water storage facilities according the District's Rules and Regulations and standard specifications in order to provide stated levels of water storage capacity for the respective development or required to pay In-Lieu Water Storage Capacity Fees Under the previous Improvement Agreements it was anticipated that the developer (the applicant) would in fact be building and dedicating water storage facilities to the District rather than pay the District's In-Lieu Water Storage Fee(s) It appears, based upon the description in the DEIR, that this is still intended

On Page 3-9 of the DEIR it is indicated that the water storage tank will be constructed by the District. This in fact not the case. The prior Improvement Agreements and the District's Rules and Regulations, specify that master plan and in-tract facilities (including water storage facilities) which are to be constructed in order to service new development within the District are required to be constructed at the cost and expense of the applicant and in accordance with specified construction requirements, including, but not limited to, the District's standard specifications

Also noted above, the Improvement Agreements relative to both master plan and in-tract water storage facilities, including, but not limited, the water reservoir identified in the DEIR, have lapsed and security for those agreement s was rejected by operation of the bankruptcy court. The specific facilities necessary in order to provide water service within the boundaries of the Property were identified in those two (2) Improvement Agreements and are specifically enumerated in the improvements plans which were filed with the District and in the cost breakdowns which are included as part of the master plan agreement exhibits Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the water storage facilities necessary in order to provide water service to the Property are designed, constructed, installed, funded and dedicated to the District as required under the District's Rules and Regulations and the previous Improvement Plans, the District will not be able to undertake to provide water service to the Property. The inability of the District to provide adequate water storage with regard to the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to water storage facilities, the following mitigation measures be added to the DEIR

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreement(s) with the District to provide for the design, construction, installation, funding and dedication of all necessary master plan and in-tract water storage facilities or, alternatively, pay the District's In-Lieu Water Storage Fees, as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692; and

2 Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed, at its cost and expense, all design, construction, installation, funding and dedication of master plan and in-tract water storage facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692

Response

Please refer to response to comment BAKWC-3. The referenced mitigation measures which are contractually required by the previous improvement agreements are reaffirmed as mitigation measures and were incorporated into DEIR 566.

BAKWG-6

Comment

Wastewater (Sewer) Facilities

The comments relative to alter distribution facilities, in the context of the Improvement Agreements, are generally applicable to wastewater (sewer) facilities relative to the District. The existence and operational readiness of wastewater collection, transportation and treatment facilities is necessary to satisfy health and safety requirements of occupancy of development in California

As noted above, wastewater treatment capacity has been purchased in the SMWD Chiquita Waste Water Treatment Facilities. The major wastewater trunk sewer and downstream lift station facilities for the Property have been financed and constructed However, certain in-tract and master plan wastewater collection and transportation facilities, identified in the Improvement Agreements, and in the improvement plans filed with the District, have not yet been constructed In this regard, the District would reference the previously approved improvement plans and the exhibits to the Improvement Agreements

As also noted above, the Improvement Agreements relative to both master plan and in-tract wastewater facilities have lapsed and security for those agreements was rejected by operation of the bankruptcy court. Correspondingly, unless the Improvement Agreements are renegotiated and agreed to by the applicant, as required by the District's Rules and Regulations, and the wastewater facilities necessary in order to provide wastewater service to the Property are designed, constructed, installed, funded and dedicated to the District as

required under the District's Rules and Regulations and the previous Improvement Plans, the District will not be able to undertake to provide wastewater service to the Property. The inability of the District to provide adequate wastewater service with regard to the Property would constitute a potentially significant adverse environmental impact which would result from the Project unless adequately mitigated. Basic mitigation measures are stated within the DEIR, however, the District specifically requests that, in regard to wastewater facilities, the following mitigation measures be added to the DEIR:

1. Prior to undertaking construction of the Project the applicant shall enter into an improvement agreement(s) within the District to provide for the design, construction, installation, funding and dedication of all necessary master plan in-tract wastewater facilities as require under the District's Rules and Regulations and the tract map approval for Tract No. 10692, and

2. Pursuant to the aforementioned improvement agreement(s) and prior to receiving a certificate of occupancy for any structures located upon the Property, the applicant shall have completed at its cost and expense, all design, construction, installation, funding and dedication of master plan in-tract wastewater facilities as required under the District's Rules and Regulations and the tract map approval for Tract No. 10692

Response

Please refer to response to comment BAKWG-3 The referenced mitigation measures which are contractually required by the previous improvement agreements are reaffirmed as mitigation measures and were incorporated into DEIR 566

BAKWG-7

Comment

Financing of Water and Wastewater Facilities

Previously, the district undertook discussions with prior property owners relative to potentially providing financing for water and waste water facilities which needed to be constructed for the benefit of the Property,. These financings were separate and apart from the assessment district financing referenced above. In this regard it was previously proposed to use financing under the Mello-Roos Community Facilities Act of 1982, as amended (the "Act"). However, previous developers did not pursue this means of financing The District Continues to be willing to discuss financing options relative to the water and wastewater facilities, but believes that the previous proceedings undertaken pursuant to the Act are most likely not viable for application to the current facilities at this time.

In regard to the Improvement Agreements, the District notes that certain dollar figures of the construction of the facilities were provided in the exhibits and the referenced performance bonds The District would note that nearly a decade has passed since these agreements were signed and as such, the cost to design, construct, install and dedicate the water and

wastewater facilities, each as referenced above, is probably significantly increased from the figures previously used Adequate financing for water and wastewater facilities should be secured in order to ensure that they will be designed, constructed, installed and dedicated to the District in a timely manner relative to the developmental process.

Response

Refer to response to comment BAKWG-3

BAKWG-8

Comment

Master Plan Update

The District would note that it is currently in the process of reviewing its Master Plan water and wastewater facilities This may also have consequences for the District's overall financing master plan The engineering review and evaluation of the District's Master Plan may result in some reevaluation of engineering presumptions and system requirements At this time, the District is still in the early stages of planning its Master Plan review and as such cannot provide definitive information as to any changes or reevaluations that may occur as a result of this process. However, the District notes that this matter, inasmuch as, if the planning and development process for the Project is significantly delayed, additional information and figures may become available from the District.

Response

The comment was noted Any additional information available from the Trabuco Canyon Water District will be incorporated into DEIR 566 as directed by the County.

BAKWG-9

Comment

Conclusion

In light of the foregoing, the District notes that the Project has the potential to impact the infrastructure facilities and systems of the District Such mitigation are principally related to the availability of facilities, their construction, installation, dedication and acceptance prior to occupancy of any development on the property and related matters Such potential impacts can be mitigated by way of the above suggested mitigation measures Provided that such mitigation measures are undertaken the District has no objection to the Project However, the District specifically notes that a failure to provide the above-requested mitigation measures could result in an adverse environmental impact(s) as a result of the Project. In such case, the District reserves its rights to protest the proceedings pursuant to Public Resources Code Section 21177 and to undertake all other legal remedies available to do it

The District specifically requests that the County of Orange, including the County Environmental and Project Management Services Department Carefully review the above-referenced comments and that those comments be considered as part of the environmental process for the Project

If you have any questions regarding this matter, please do not hesitate to contact our offices. We would be pleased to provide you with any additional information you may require.

Response

The comment is noted Refer to responses BAKWG-1 through BAKWG-8.

3.8 COMMENTS AND RESPONSES - THE ORANGE COUNTY TRANSPORTATION AUTHORITY (OCTA)/Ben Jarvis, Associate Transportation Analyst, August 11, 1997

OCTA-1

Comment

The Orange County Transportation Authority (OCTA) has reviewed the Saddleback Meadows Recorded Tract Map 10692, Grading Application GA960048 OCTA has no comments at this time

We appreciate the opportunity to provide input on this project. If you have further questions or need additional information, please call me at 714/560-5786.

Response

The comment is noted. No response is required

3.9 COMMENTS AND RESPONSES - Kimberly A. Stocking, August 11, 1997

KAS-1

Comment

I am submitting this letter to comment on the proposed 705 unit mobile home park on the Saddleback Meadows site Not long ago approval was being sought for 318 houses on this site. Why it was not passed I don't understand. Now we are having to deal with the thought of an extremely large number of mobile homes in our very secluded and tranquil area I was in favor of the 318 homes and even toured the site when they opened it to the public last year to show what they were proposing Believe me my first choice would be to leave it untouched and unbuilt so we could continue to view the beautiful hillside of our rural area. But if something must be built lets have it be fewer homes with a much more aesthetic appearance that fits into the already existing areas surrounding it Also, my concern is if 705 units are brought on-site where are all these children going to go to school? Portola Hills Elementary is already at full capacity and measures have had to be taken to accommodate its student load.

I will be following the developments and can only pray that the Planning and Development Service Department along with the County Supervisors will make fair and knowledgeable decisions regarding this 222-acre rural canyon site.

Response

Please refer to Section 3.0 (Project Description) in DSEIR 566 for a complete discussion of the project description School impacts are evaluated in Section 4.12 of the DEIR Please also refer to response to comment SVUSD-1

It should be noted that, along with the certification of EIR 566 at the December 3, 1997 Planning Commission meeting, the Planning Commission recommended that the Board of Supervisors consider approving the EIR 561 staff alternative, which appears as Alternative 4 in SEIR 566 (299 single family dwelling units) in place of the 705 unit project that the SEIR 566 was certified for.

3.10 COMMENTS AND RESPONSES - Wayne L. Brown, August 12, 1997

WLB-1

Comment

> This project was a bad idea when it was originally corruptly approved, it has only become more evident over time what a poorly conceived project it is Please consider the animal corridor rather than the pocket book of the proposed builder After all the builder knew the history of the property when they bought it at "fire sale" prices. They knew about the specific plan that now protects the area from ill conceived plans. If the proposed builder did not know these things, then all the more reason to deny approval to such poor business people who would not have the foresight to research the property.

Response

> Please refer to Section 4.7 of the DEIR for a complete discussion of wildlife movement.

3.11 COMMENTS AND RESPONSES - Amber Graves, August 12, 1997

AMG-1

Comment

> I know this project was approved long before the specific plan came into existence, but because of the way it was originally approved I think it should be looked at like it were being submitted for the first time. This project does not fit in with the area, it leaves no way for the animals to migrate and will be built on ground that will easily slide even after removing tons and tons of dirt Please deny this builders request.

Response

> Refer to Section 4.1 of the DEIR for a complete discussion of land use, Section 4.2 for a discussion of geotechnical hazards and Section 4.7 for a discussion of project impacts to Biological resources

3.12 COMMENTS AND RESPONSES - Debra Moddelmog, August 12, 1997

DBM-1

Comment

Please consider the past history of this property when making a determination From the fraud that led it to be originally approved, to the sliding slopes and buildings at the Abbey and including the animal corridor THIS IS NOT A GOOD IDEA. Please uphold the principals of the specific plan

Response

A complete discussion of project history is contained in Section 2.4 of the DEIR Section 4.2 of the DEIR provides a complete discussion of geotechnical hazards and Section 4 7 discusses project impacts to wildlife movement.

3.13 COMMENTS AND RESPONSES - Justin Watson, August 12, 1997

JW-1

Comment

What effect is this project going to have on the Abbey and the Monastery, this is part of Orange County's Culture Where can these places be relocated without builders taking away their serenity??

Response

Project related impacts to the Ramakrishna Monastery and Saint Michael's Abbey were documented in Sections 4 1 (Land Use) and 4 9 (Cultural Resources) of DEIR 566.

3.14 COMMENTS AND RESPONSES - CITY OF LAKE FOREST
Kathy L. Graham, J.D., AICP, August 12, 1997

CLF-1

Comment

Thank you for the opportunity to review the Environmental Impact Report for the Saddleback Meadows Project. Last year, when the board of Supervisors considered this project in November, City staff provided verbal comments on the project at the public hearing. The City continues to have concerns regarding the project. On April 23, 1997, the City submitted comments to the County on the Revised Notice of Preparation for DEIR #566. The City's NOP Comments were not cited or addressed in the DEIR Document. The comments identified below in this letter represent the City's previously stated concerns regarding the project. We are expecting that the county, as the lead agency, will address these comments in the "Response to Comments" Document for DEIR #566

Response

The City of Lake Forest Notice of Preparation comment letter was incorporated into DEIR 566. The comment letter did not raise any new issues not already evaluated by the DEIR.

CLF-2

Comment

From the materials presented, it is clear that significant grading and remediation of the site will be necessary. According to the EIR, this grading will involve 2.5 million cubic yards of conventional grading and just under 9 million cubic yards of remedial grading The EIR did not address the amount of off-site trucking activity which will occur as a result of the earthwork Earthwork of this magnitude could result in the functional equivalent of half a million double-trailer truck loads of material to be moved It is our understanding that because of the constraints of this site, a significant portion of this earthen material will be required to be moved to off-site locations for stockpiling and drying prior to returning to the re-engineered and strengthened site.

Response

The comment restates project description and geotechnical information contained in the DEIR. The comment relating to offsite transport and stockpiling of earthen material during the remedial grading phase of the project is incorrect No offsite transport of earthen material is proposed All remedial grading will be conducted on the project site in phases.

CLF-3

Comment

The City of Lake Forest has significant concerns about the potentially tremendous increases in traffic, particularly truck traffic, that this project could have on the City. The reports indicate that the excavation and trucking may take as long as eighteen months to complete The duration of construction is not addressed in the EIR The City and its residents have been inundated over the last few years with significant public construction and private development outside the City, and the City and its residents have borne a disproportionate impact from this activity. A partial list of construction projects which have impacted the City are as follows. the foothill Transportation corridor, the El Toro Y Project (including streets and off-ramp closures), the Foothill circulation Phasing Plan improvements, and all of the construction and on-going industrial business operations in the City's Sphere of Influence and north thereof

Response

Truck traffic would not be a large component of overall project related traffic generation, as no offsite transport of material is proposed, as noted in response to comment CLF-2. Section 3 4 (project phasing) of the DEIR, on Page 3-16, contains a detailed discussion of the duration of construction

CLF-4

Comment

Based on the impacts from these projects, our residents specifically requested that the City Council consider the adoption of truck routes within the City. The City Council has held a public hearing on this request and is actively studying the need for truck routes within the City. It is our view that approval of this project and the types of truck traffic it would generate would only further the need to establish truck routes within the City At a minimum, the County needs to incorporate conditions of approval and environmental mitigation relative to truck traffic as it impacts the City, its residents, and its infrastructure. A financial mechanism should be established to reimburse the City for the repair and maintenance costs associated with such heavy truck traffic load on City streets.

Response

Please refer to response to comment CLF-2 No additional mitigation measures are required to mitigate additional truck traffic

CLF-5

Comment

There are other concerns the City has regarding this project, including the appropriate mitigation of the coastal sage scrub plant community (68.7 acres) and other environmentally sensitive plant and animal species It is not entirely clear from the documentation how these environmentally sensitive areas are to be addressed. Nor is it indicated or insured that adequate safety precautions will be taken during the grading process to insure that the environmentally sensitive areas (i.e., Aliso Creek) are protected from impacts such as grading, or a grading induced landslide

Response

Section 4 7 of the DEIR outlines a comprehensive mitigation program designed to address project impacts to coastal sage scrub and the sycamore woodland associated with Aliso Creek. It should also be noted that appropriate permits and agreements must be executed with the U.S. Fish and Wildlife Service, California Department of Fish and Game and the U.S Army Corps of Engineers (ACOE) prior to the issuance of any grading permit.

CLF-6

Comment

The EIR indicates that the project represents a potential conflict with the Aliso Creek Corridor Specific Plan (ACCSP) The potential conflict must be specified. The Aliso Creek Regional Riding & Hiking Trail is a valuable recreation resource currently used by residents of the City of Lake Forest and our Sphere of Influence. Significant impacts to Aliso Creek and the Trail, including construction impacts, should be avoided or completely mitigated

Response

Section 4.1 3 of the DEIR, on Page 4-12, documents the inconsistencies of the proposed project with the Aliso Creek Corridor Specific Plan These listed inconsistencies include lack of preservation of recreational open space and conservation of natural features, including Aliso Creek and adjacent habitat areas Please note that the project only affects the portions of the ACCSP which are within the project site The vast majority of the ACCSP area is unaffected

CLF-7

Comment

Finally, the EIR indicates that children from the proposed project will be absorbed into the Saddleback Valley Unified School District. It is further indicated that all SVUSD schools in the project vicinity are near capacity The Environmental Impact Report should address whether the increase in school age children associated with the project will impact Saddleback

Valley Unified School District Schools within the City of Lake Forest. Specifically, identify whether enrollment or teacher student ratio will be impacted at any Lake Forest public school site.

Response

Detailed Saddleback Valley Unified School District student and facility impact information is contained in Section 4-12 of the DEIR, beginning on Page 4-209. In addition, updated project related student generation data is included in Section II of the document, Corrections and Additions to the DEIR per comments from the Saddleback Valley Unified School District.

CLF-8

Comment

The concerns identified above must be addressed in the Draft Environmental Impact Report Please provide the City with a copy of the DEIR "Response to Comments" Document as soon as it is available

Response

The comment was noted. The City of Lake Forest was provided with a copy of the Response to Comments document in accordance with State CEQA requirements and County of Orange procedures

3.15 COMMENTS AND RESPONSES - SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS, J. David Stein, Manager, Performance Assessment and Implementation, August 12, 1997

SCAG-1

Comment

Thank you for submitting the County of Orange, Draft Subsequent Environmental Impact Report for Saddleback Meadows Project (Recorded Tract 10692) to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies in reviewing projects and plans for consistency with regional plans.

The attached detailed comments are meant as administrative comments to provide guidance for considering the proposed project within the context of our regional goals and policies. SCAG's policy level review will be initiated with the presentation of the proposed Saddleback Meadows Project to SCAG's Standing committee on Implementation (SCI) on September 4, 1997 at 11:00 am at the SCAG office in Los Angeles. You or the project developer are cordially invited to attend this meeting and answer any questions. If you have any questions regarding the attached comments, please contact Bill Boyd at (213) 236-1960. He will be contacting you with further information concerning this SCI meeting.

Response

The comment is noted The referenced meeting was not attended by either the applicant or the County of Orange.

SCAG-2

Comment

COMMENTS ON THE COUNTY OF ORANGE SADDLEBACK MEADOWS PROJECT (RECORDED TRACT 10692) DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

PROJECT DESCRIPTION

The Saddleback Meadows site encompasses approximately 222 acres and is located on the easterly side of El Toro Road, approximately ½-mile south of the intersection of Santiago Canyon Road/El Toro Road and Live Oak Canyon Road, in east-central unincorporated Orange County. The incorporated cities of Mission Viejo and Lake Forest lie approximately three miles to the south and southwest, with the Cleveland National Forest boundary located approximately ½-mile north of the project site. The project site is surrounded by residential development, with the Portola Hills and Foothill Ranch planned communities to the west, the Hidden Ridge/Hidden Hills community and a nursery to the south, and scattered low-density

residential uses to the north and east. O'Neill Regional Park is located adjacent to the southerly boundary of the site with St Michael's Abbey immediately to the northwest and the Ramakrishna Monastery located immediately to the southeast.

The Project site is located within the Foothill-Trabuco Specific Plan and the DEIR states that the Project is inconsistent with many of the goals, objectives and policies of the plan which generally calls for preservation of the rural character and natural habitat of the area. The site is also located within the Aliso Creek Corridor Specific Plan area, and the DEIR notes that although it incorporates regional; riding and hiking trail connections into its design, it does conflict with several other aspects of the Plan. For example, it would not preserve recreational open space or conserve natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel The DEIR also states that the project is in direct conflict with the Natural communities Conservation Planning Program (NCCP) in that it would disturb sensitive wildlife habitat area. The project site is also situated just north of the Foothill Transportation Corridor

The proposed Project would construct a previously approved and recorded Tract Map 10692 which was originally approved in 1979 and recorded in 1988 The Draft SEIR notes that the Project is consistent with the approved tract map, and proposes the phased planned development of 705 manufactured single family housing units and a 1.5 acre, neighborhood commercial center and associated infrastructure The gross residential density is 3 17 du/ac, with minimum lot sizes of 2,630 square feet The total development footprint would affect 86 percent or about 191 acres of the project site. Thirty-nine percent of the project site is proposed to remain in open space, including community slope area The project proposes eight private park sites; regional equestrian hiking and bicycle trail connections; and the construction of a water tank site to be dedicated to the local water company

Prior to the most recent submittal of a grading permit application for Tract Map 10692, the project was proposed for 318 single-family dwelling units The Draft EIR for the Project noted that the 318-unit project was "environmentally superior" to the 705 unit project currently being proposed, the 318-unit proposal was denied. The earlier Draft EIR has identified the 705-unit project as one of the two environmentally inferior alternatives considered.

The Draft EIR identifies the following areas of controversy that have arisen in response to the Notice of Preparation and which are addressed in the DEIR

- Land Use/Aesthetic Compatibility
- Foothill-Trabuco Specific Plan Conformance
- Emergency Access Requirements
- Wildlife Corridor Design Width
- Project Specific Affordable Housing Requirements

- EIR Preparation Process/Procedures
- Loss of Wild Habitat
- Geophysical Stability
- Traffic/Circulation

The following alternatives to the proposed development are evaluated in the DEIR:

Alt. 1 No Project/No Development

Alt. 2 Foothill-Trabuco Specific Plan Alt. A - 150 Minimum 20,000 sq. Ft. lots.

Alt 3 Foothill-Trabuco Specific Plan Alt B - 100 SFD Units on 31.7 acres

Alt 4 OCP&DS Staff Alternative (EIR 561) - 299 SFD Units, Min 5,000 sq. Ft. lots

Alt 5 Cluster/Reduced Development Footprint - 318 SFD/MFD.

Response

The comment restates information contained within the DEIR 566 No response is required.

SCAG-3

Comment

INTRODUCTION TO SCAG REVIEW PROCESS

The document that provides the primary reference for SCAG's project review activity is the Regional Comprehensive Plan and Guide (RCPG). The RCPG chapters fall into three categories core, ancillary, and bridge. The Growth Management (adopted June 1994), Regional Mobility (adopted June 1994), and Water Quality (adopted January 1995) chapters constitute the core chapters These core chapters respond directly to federal and state planning requirements The core chapters constitute the base on which local governments ensure consistency of their plans with applicable regional plans under CEQA The Air Quality and Growth Management chapters contain both core and ancillary policies, which are differentiated in the comment portion of this letter. The Regional Mobility Element (RME) constitutes the region's Transportation Plan The RME policies are incorporated into the RCPG

Ancillary chapters are those on the Economy, Housing, Human Resources and Services, Finance, Open Space and Conservation, Water Resources, Energy, and Integrated Solid Waste Management These chapters address important issues facing the region and may

reflect other regional plans. Ancillary chapters, however, do not contain actions or policies required of local government Hence, they are entirely advisory and establish no new mandates or policies for the region

Bridge chapters include the Strategy and Implementation chapters, functioning as links between the Core and Ancillary chapters of the RCPG

Each of the applicable policies related to the proposed project are identified by number and reproduced below in italics followed by SCAG staff comments regarding the consistency of the project with those policies.

Response

The comment outlines the components of the Regional Comprehensive Plan and Guide. No response is required.

SCAG-4

Comment

Consistency With Regional Comprehensive Plan and Guide Policies

1. The Growth Management Chapter (GMC) of the Regional Comprehensive Plan contains a number of policies that are particularly applicable to this Project

a. *Core Growth Management Policies*

3.01 The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.

SCAG staff comments As SCAG has designated subregions, the project is situated in the Orange County subregion Implementation of the project would result in the creation of 705 housing units. The DEIR acknowledges on page 4-3 that the project site is situated within a Regional Statistical Area that is forecasted to grow at the rate of 2 3 percent between 1995 and 2000. Although the DEIR does not identify the projected population that would be accommodated by the 720 units, it is evident that this growth can be accommodated in that forecasted by SCAG for the subregion. The project is consistent with this RCPG policy

Response

The comment documents consistency with the Growth Management Chapter of the Regional Comprehensive Plan No response is required.

SCAG-5

Comment

3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.

SCAG staff comments. The DEIR contains an analysis of the relationship of the Project to this policy (18 months to complete project grading, phasing of residential units within 5 years following completion of grading, installation of all infrastructure during initial phase) on page 3-16. The Project is consistent with this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-6

Comment

b. *Ancillary Growth Management Policies*

3.04 Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.

SCAG staff comments The DEIR references consistency of the Project's objectives of providing affordable housing in a jobs-rich, housing-poor area on page 4-11. It notes that the project was conditionally approved in 1979 with a 66 2/3 percent affordable housing requirement in accordance with the County's Inclusionary Housing Policy The county policy has since been rescinded, but the project is bound by the original tract map to provide a total of 470 lots to be sold in the affordable range. These lots are further broken down to include· 188 low/moderate and 282 Medium I level housing units The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4

SCAG- 7

Comment

3.05 Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities

SCAG staff comments This Project would utilize existing water and sewer

infrastructure that is available at the site boundary. The type of development proposed in the Project makes good use of this infrastructure as stated on pages 4-230 and 231 of the DEIR. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-8

Comment

3.11 Support provisions and incentives created by local jurisdictions to attract housing growth in job rich subregions and job growth in housing subregions.

SCAG staff comments See comments on policy 3.04. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-9

Comment

3.12 Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.

SCAG staff comments. The Draft EIR on page 4-52 states that the proposed Project will generate 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. The project site is not served by an existing bus route adjacent to the site on El Toro Road. The nearest OCTA bus service (2 routes) are located 2.25 and 2 5 miles southwest of the project site, and the nearest park-and-ride facility is located 2.0 miles southwest of the site No provisions are made to provide for transit access to the site and to reduce the reliance on the automobile The Project will result is increased need for roadway improvements to meet projected vehicle trips and miles traveled. The Project is not supportive of this RCPG policy.

Response

OCTA provides bus service to Orange County and expands service to meet demand.

SCAG-10

Comment

3.17 Support and encourage settlements patterns which contain a range of urban densities.

SCAG staff comments. The Project proposes that the entire site be developed for single residential use at a gross residential density of 3 17 du/acre. Alternative No. 5 (Cluster/Single Family/Multifamily) would have significantly less total acres of the site disturbed (113.0 ac versus 191.4 ac). This alternative could better achieve intent of this SCAG policy, while minimizing site disruption and preserving more open space The Project is not supportive of this RCPG policy

Response

The comment documents the inconsistency between the proposed project and the RCPG.

SCAG-11

Comment

3.18 Encourage planned development in locations least likely to cause adverse environmental impact.

SCAG staff comments The DEIR states that the proposed Project will result in the following unavoidable adverse impacts that cannot be mitigated to a level less than significant:

- Land use incompatibility impacts to O'Neill Regional Park (wildlife habitat), the Ramakrishna Monastery and St. Michael's Abbey.
- Vehicular emissions from project related traffic will have a cumulative significant air quality impact.
- Project specific and cumulative impacts to 50.3 acres of Venturan-Diegan transitional coastal sage scrub until such time as a section 4 (d) interim take is authorized
- Development of the first large tract within the Foothill/Trabuco Specific Plan area will result in cumulative impacts to existing rural and natural open space and to a continued urbanization of foothill areas in south Orange County.
- Permanent viewshed alteration will occur with regard to the regional park, monastery and abbey and additional night lighting glare change night views from an unlit dark open space to an urban night environment

Furthermore, the project would result in significant impacts related to slope stability, landslides, mud slides, subsidence and erosion. Mitigation measures are proposed to address these impacts, but the fact remains that the project will result in a total of 2 6 million cubic yards of conventional grading and 8 9 million cubic yards of remedial

grading Taken as a whole, the Project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-12

Comment

3.19 National Forests shall remain permanently preserved and used as open space. SCAG shall support policies and actions that preserve open space areas identified in local, state, and federal plans.

SCAG staff comments. The DEIR states that the proposed Project will result in the following conflicts with local or state open space plans and policies.

- The project conflicts with the Foothill-Trabuco Specific Plan, specifically with regard to the preservation of a regionally contiguous wildlife corridor and the types of homes being proposed would be incompatible with site topography and biological resources.
- The project conflicts with the Aliso Creek Corridor Specific Plan in that it would not preserve recreational open space or conserve the natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel
- The project conflicts with the Natural Communities Conservation Planning Program in that it would further disturb a sensitive wildlife habitat area

The Project is not supportive of this RCPG policy

Response

Please refer to response to comment SCAG-10

SCAG-13

Comment

3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.

SCAG staff comments. The Draft EIR identifies a number of instances where this policy is not supported

- The loss of 50.3 acres of Venturan-Diegan Transitional Coastal Sage Scrub that, although it will not be considered a "take" under federal requirements,

will when added to other losses in the area, total about 2.4% of the coastal sage scrub in the Southern Subregional NCCP program area

- The loss of 3 8 acres of Muelfat Scrub (associated with three ephemeral ponds) and 3.3 acres of Southern Sycamore Riparian Woodland which are significant because of their values as wildlife habitats and their function as wetlands.
- The loss of 14 6 acres of Coast Live Oak Woodland (312 individual trees) which are significant because of their wildlife values, their function in watershed protection and their function as part of the planned NCCP regional wildlife corridor
- The loss of 0.6 acres of existing Ephemeral Ponds which is significant due to the presence of the Riverside fairy shrimp which is a federally endangered species
- Direct impacts to 1.65 acres of wetlands and 1.78 acres of "Waters of the United States" (intermittent streams and man-made stock ponds).
- Adverse, but not significant, loss of populations of two sensitive plant species, the Catalina mariposa lily and intermediate mariposa lily.
- The loss of approximately 50.3 acres of potential nesting and foraging habitat (coastal sage scrub) on and off site, including portions of areas occupied by at least 12 pairs of southern California rufous-crowned sparrows and at least six pair of coastal cactus wrens, both of which are regionally sensitive species
- General loss of habitat for at least 63 animal species which were observed during various on-site surveys.
- Acknowledgment that "the project, as currently proposed, may hinder or preclude the preparation of the Southern Subregional NCCP Preserve, due to restricted wildlife movement corridors".

The Project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-14

Comment

3.21 Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.

SCAG staff comments The Draft EIR acknowledges that the Project is known to contain significant deposits of artifacts (four significant sites) and fossils, as well as a ranch house ruin The project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-15

Comment

3.22 Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.

SCAG staff comments The Draft EIR acknowledges that the Project site is characterized as containing ridges, ravines, and gullies with natural slope gradients ranging from nearly level along some ridge crests and valley bottoms to 1:1 (horizontal.vertical) within deep incised gullies The slope characteristics of the site are as follows. 95 5 acres (43% of site) is in the 0-25 percent slope category; 94.9 acres (43%) is in the 26-50 percent slope category; and, 31.8 acres (14%) of the project site has slopes in excess of 50 percent As noted in the project description, significant grading is required to develop the site as proposed

The Draft EIR also acknowledges that the Project is located in an area designated as a high "Special Fire Protection" area due to its combination of natural combustible vegetation, topography and weather conditions (frequent dry Santa Ana winds) Furthermore, Draft EIR notes a potential conflict between the human environment and the two main top predators of the region, coyotes and mountain lions

The Project is not supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-10.

SCAG-16

Comment

3.23 Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans

SCAG staff comments. Discussion of mitigation measures to address emergency response concerns due to seismic hazards, biological and ecological resources and other natural or manmade hazards are included in the Executive Summary of the Draft EIR. The Project is supportive of this RCPG policy

Response

Please refer to response to comment SCAG-4.

SCAG-17

Comment

3.24 Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment

SCAG staff comments. See staff comments on policy 3 04. The Project will increase the supply and quality of affordable housing in southeastern Orange County. The Project is supportive of this RCPG policy.

Response

Please refer to response to comment SCAG-4.

SCAG-18

Comment

2 The Regional Mobility Chapter (RMC) also has policies, all of which are core, that pertain to the proposed project This chapter links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitation. Among the relevant policies in this chapter are the following.

Transportation Demand Management and Regional Transit Program Policies

4.01 Support/Promote TDM programs along with transit and ridesharing facilities as a viable and desirable part of the overall mobility program while recognizing the particular needs of individual subregions.

4.03 Support the extension of TDM program implementation to non-commute trips for public and private sector activities.

4.04 Support the coordination of land use and transportation decisions with land use and transportation capacity, taking into account the potential for demand management strategies to mitigate travel demand if provided for as a part of the entire package.

SCAG staff comments See staff comments on policy 3.12 SCAG's December 31, 1996 letter on the Notice of Preparation for the Saddleback Meadows project

recommended consideration of these three policies in the preparation of the Draft EIR. No apparent consideration was given to the provision of TDM or transit services to meet the needs of the proposed 6,220 trip ends per day in year 2020. Mitigation measure AM 5-3 is not an air quality mitigation measure, but rather a commentary on not taking credit for mobile source emission reductions, including trip reduction programs The Project is inconsistent with the three TDM/transit RCPG policies.

Response

Please refer to response to comment SCAG-9.

SCAG-19

Comment

Regional Street and Highways Program Policies

4.20 Expanded transportation system management by local jurisdictions will be encouraged.

4.23 TSM activities throughout the region shall be coordinated among jurisdictions.

SCAG staff comments The Draft EIR notes that the Project developer will pay for signal modifications and turn lanes at the intersections of El Toro Road with Valley Vista Way and the new northern collector street serving the site. Furthermore, a mitigation measure (AM 4-16) assures that the developer will participate in existing road fee programs, including the Foothill/Eastern Transportation Corridor Fee Programs, Foothill Circulation Phasing Program, El Toro Road Fee Program and the Santiago Road Fee Program The Project is consistent with these two RCPG policies

Response

Please refer to response to comment SCAG-4.

SCAG-20

Comment

Regional Non-Motorized Transportation Program Policies

4.25 The development of the regional transportation system should include a non-motorized transportation system that provides an effective alternative to auto travel for appropriate trips. The planning and development of transportation projects and systems should incorporate the following, as appropriate:

a • *Provision of safe, convenient, and continuous bicycle and pedestrian infrastructure to and throughout areas with existing and potential demand such as activity areas, schools, recreational areas (including those areas served by trails), which will ultimately offer the same or better accessibility provided to the motorized vehicle.*

b • *Accessibility to and on transit (but terminals, rail stations, Park-And-Ride lots), where there is demand and where transit boarding time will not be significantly delayed.*

c • *Maintenance of safe, convenient, and continuous non-motorized travel during and after the construction of transportation and general development projects. Existing bikeways and pedestrian walkways should not be removed without mitigation that is as effective as the original facility.*

SCAG staff comments The Draft EIR acknowledges that the Project abuts the Aliso Creek Bikeway. Mitigation measures (PDF 10-1 and 10-2) assure the construction of the Live Oak Canyon and Aliso Creek riding and hiking trails within the Project boundaries No local bikeway or pedestrian circulation improvements are provided for in the Project design The Project is consistent with this RCPG policy as it relates to regional bikeway and trail access but inconsistent with the policy as it pertains to local bikeways and pedestrian walkways within the Project site.

Response

The comment documents both the project's consistency and inconsistency with the non-motorized transportation policies

SCAG-21

Comment

4.27 *Urban form, land use and site-design policies should include requirements for safe and convenient non-motorized transportation, including the development of bicycle and pedestrian-friendly environments near transit.*

SCAG staff comments See previous comments on policies 3 12, 4.01, 4.03, 4.04 and 4 25 The Project is inconsistent with this RCPG policy

Response

Please refer to response to comment SCAG-10

SCAG-22

Comments

3. The Water Quality Chapter (WQC) core recommendations and policy options relate to the two water quality goals, to restore and maintain the chemical, physical and biological integrity of the nation's water, and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters. The core recommendations and policy options that are particularly applicable to the Project include the following.

11.02 Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.

SCAG staff comments. The Draft EIR acknowledges that the project site is located within the boundaries of two primary watershed areas: 1) Aliso Creek (75% of site) and 2) Oso Creek (24% of the site) The Draft EIR on page 4-38 acknowledges that "Implementation of the proposed project will result in the introduction of impervious surfaces (streets, driveways, residential units) and will result in **a decrease in the area available for stormwater percolation and a substantial increase in stormwater runoff**. Implementation of the proposed project will result in **substantial landform modification**, redirecting site drainage throughout the site " [emphasis added] The Project proposes drainage improvements that mitigate drainage impacts to a level less than significant However, the project as noted previously herein, conflicts with the Aliso Creek Corridor Specific Plan in that it "would not preserve recreational open space or conserve the natural features of the Aliso Creek Corridor as it proposes to replace an existing natural creek with a trapezonal channel". The Project does not recognize watershed management policy in the local government approved Aliso Creek Corridor Specific Plan The Project is inconsistent with this RCPG policy.

Response

Please refer to response to comment SCAG-10

SCAG-23

Comment

Conclusions and Recommendations:

(1) As noted in the staff comments, the proposed Sadddleback Meadows Project is consistent with or supports many of the policies in the Regional Comprehensive Plan and Guide, but is inconsistent with core policies 4 01, 4.03, 4.04, 4 27 and 11.02 and is not supportive of ancillary policies 3 12, 3 17, 3.18, 3 19, 3.20, 3 21 and 3 22. Furthermore, the Project is consistent with some aspects of core policy 4.25 and inconsistent with others, as noted in the staff comments

(2) All mitigation measures associated with the project should be monitored in accordance with AB 3180 requirements and reported to SCAG through the Annual Reasonable Further Progress Reports.

Response

The comment summarizes the comments contained in the comment letter and requests that all mitigation measures be monitored and reported to SCAG on an annual basis. All mitigation measures contained within the Final EIR will be monitored in accordance with the requirements promulgated by CEQA. Copies of the monitoring reports will be made available for SCAG review

3.16 COMMENTS and RESPONSES - SADDLEBACK VALLEY UNIFIED SCHOOL DISTRICT, Peter A. Hartman, District Superintendent, August 13, 1997

SVUSD-1

Comment

In response to the above Draft EIR #566 indicating that approval of this project would have significant impacts on the district's provision of adequate school facilities unless mitigation is provided, we would like to provide some information for your consideration·

K-6	= .2264	=	160	
7-8	= .0566	=	40	
9-12	= .0755	=	54	
K-12	= .3585	=	254	students

As we have no district standard for manufactured housing, the above is our prediction for the impact of this project on our district.

Response

The proposed project is not designated as an *adults only* community, and student generation rates would be expected to be similar to standard single family detached dwelling units The identified student generation rates, based on an existing non-adults only manufactured housing development located within the district, were incorporated into the Final EIR.

SVUSD-2

Comment

Currently, students in this general area are assigned to Portola Hills Elementary, Rancho Santa Margarita Intermediate and either El Toro High School or Trabuco Hills High School. ALL of these schools are filled to capacity and either do have now or will have by fall, 1997 added a number of relocatable buildings to house enrollment exceeding the capacity of their original construction

Per the current practice of the County of Orange regarding other projects, the district requests that this project be conditioned to require that the proponent, California Quartet, Inc , meet with district staff to review the impact and necessary mitigation measures needed as a result of this project

Response

The comment relating to high schools which would serve the proposed project and the overcrowded conditions of all schools that would serve the proposed project was

incorporated into DEIR 566.

3.17 COMMENTS AND RESPONSES - STATE OF CALIFORNIA - RESOURCES AGENCY, DEPARTMENT OF PARKS AND RECREATION, Bill Berry, District Superintendent, August 15, 1997

DPR-1

Comment

The California Department of Parks and Recreation (CDPR), Los Lagos District office has reviewed the above referenced document thank you for the opportunity to provide comments.

The CDPR is s trustee agency as defined by CEQA In addition, a defining tenant of our mission is to help to preserve the state's extraordinary biodiversity As the office responsible for the stewardship of the natural cultural resources of Chino Hills State Park, we have an interest and concern about land use decisions in the geographic area as they relate to our mission and responsibilities under CEQA

Response

The comment states the trustee responsibility that the State of California, Department of Parks and Recreation has in relationship to DEIR 566

DPR-2

Comment

We view the maintenance of a functional system of interconnected wildland areas throughout the region as vitally important to the preservation of biodiversity. The Santa Ana Mountains and the Puente-Chino Hills are an interdependent ecological system. The health of each area is integral to the other CHSP is located in the Puente-Chino Hills adjacent to the northern end of the Santa Ana Mountains The Santa Ana Mountains provide a valuable source of genetic material that helps to maintain the health and diversity of CHSP's plant and animal populations.

The importance of the two areas to each other continues to increase as they each become smaller, more isolated, and more fragmented by surrounding development. Fragmentation and isolation portends massive ecosystem collapse that could render all of our other regional conservation efforts nearly pointless.

Given the importance of the Santa Ana Mountains to the maintenance of the diversity of life in CHSP and the Puente-Chino Hills, we are concerned about the potential isolating and fragmenting effects of projects in the vicinity of the mountain range, and conserved lands within it such as the Cleveland National Forest and O'Neill Regional Park. We believe that development adjacent to these protected wildland areas would be designed in a manner that will preserve functional biological corridors and buffer protected lands from more intensive land uses

Response

It should be noted that Chino Hills State Park is over twenty air miles northwest of the project site, separated from the project site by the SR 91 freeway Section 4.7 of the DEIR, beginning on page 4-118 of the DEIR, documents the project related effects to wildlife movement in the vicinity of the project site and in relationship to the ongoing planning efforts associated with the NCCP southern sub-regional preserve Implementation of the proposed project would have an incremental effect on wildlife movement between O'Neill Regional Park and the Cleveland National Forest, although it would not represent a significant impediment to wildlife movement between the Santa Ana Mountains and the Puente-Chino Hills.

DPR-3

Comment

After reviewing the alternative for the project, it appears that Alternative 3 is the most responsible one. It limits development to the western side of the project, thereby protecting connectivity between O'Neill Regional Park and the Cleveland National Forest It also places new development next to existing residential and commercial areas while providing a significant buffer to the park and forest. It appears that all of the other alternatives in some way fragment the National Forest from the Regional Park, and reduce the buffer to existing wildland.

Response

The comment restates information contained in the Alternatives section of the DEIR

DPR-4

Comment

In the final development decision, we believe it is incumbent on the lead agency to approve an alternative that is responsible to the invaluable natural resources found in the Cleveland National Forest, the County Regional Parks, and throughout the surrounding Region. We appreciate the consideration given to buffers and corridors in the environmental review, and we encourage their full protection Thank you for the opportunity to comment If you have any questions, please contact Geary Hund, Doreen Ferguson or myself at (909) 657-0676

Response

Please refer to response to comment No. DPR-3

3.18 COMMENTS AND RESPONSES - RURAL CANYONS CONSERVATION FUND, Ray Chandos, August 18, 1997

RCCF-1

Comment

We have reviewed Draft EIR 566 (the DEIR) and comment as follows

1. DEIR MUST IDENTIFY FEASIBLE MITIGATION MEASURES AND PROJECT ALTERNATIVES

A bizarre disclaimer precedes the body of this DEIR at page 3-8.

It is therefore understood that the environmental analyses and evaluations contained in this document are largely informational, and not prescriptive in nature in that mitigation measures which would alter features of the final recorded tract map can not be implemented to reduce all project impacts to a level of insignificance This is attributable primarily to the physical limitations of the site and the inability to deviate from the final recorded tract map Accordingly any findings of significant impacts must be offset through the issuance of a statement of Overriding Considerations

Does this mean that some or all of the mitigation measures listed in the DEIR are "largely informational" and "can not be implemented"? If so, those mitigation measures should be identified, because CEQA required the EIR to set forth feasible mitigation measures and alternatives to reduce or eliminate the project's identified significant environmental impacts to the extent feasible Please identify for the decision makers which mitigation measures "can not be implemented," and which can be implemented

Response

The referenced statement was included in DEIR 566 to describe the unique parameters associated with the evaluation of an existing recorded tract map in a DEIR. Mitigation measures which would require the applicant to substantially deviate from the physical design of the recorded tract map are not possible under the Subdivision Map Act, and as such would not be enforceable or considered feasible. As such, mitigation measure development must focus on reducing or eliminating adverse project related impacts through means which would not alter the physical parameters of the recorded tract map Consequently, as stated in the referenced portion of the document, any unavoidable adverse impacts which cannot be reduced to a level of less than significant, would require a Statement of Overriding Considerations as part of the Final EIR certification process. Therefore, those mitigation measures which do appear in DEIR 566 are deemed by the County to be implementable.

RCCF-2

Comment

Further, in stating that "any findings of significant impacts must be offset through the issuance of a statement of Overriding Considerations," the disclaimer implies that the County lacks any discretion to deny the grading permit As explained below, however, the County may deny the grading permit, or approve an alternative to it.

Response

Please refer to response to comment RCRF-1.

RCCF-3

Comment

2. THE COUNTY HAS DISCRETION TO DENY THE PROJECT OR APPROVE AN ALTERNATIVE PROJECT

As acknowledged in the DEIR, the Foothill/Trabuco Specific Plan explicitly mandated environmental review of the project under CEQA, requiring an Initial Study and "additional environmental documentation" "[p]rior to the issuance of any grading permit for the subject property " (FTSP Section III 3 2(c).) This provision implies discretion--preparing environmental documentation would simply waste time and paper if it could not be acted upon CEQA Guidelines classify the issuance of a building permit as discretionary if local ordinance--in this case the FTSP (enacted in 1991 by ordinance)--contains "any discretionary provision." (CEQA Guidelines Section 15268(b).) Section III.3 2© recited above appears to constitute such a "discretionary provision" in this case

As this court noted in Friends of Westwood v Los Angeles (1987) 191 Cal.App 3d 259, 266-268, preparing environmental documentation for a purely ministerial project would be futile since the approving agency has no discretion to modify such a project to eliminate or reduce environmental impacts

Nor does any statute or regulation say that the granting of a grading permit is necessarily ministerial That depends on the particular circumstances (CEQA Guidelines Section 15268(a)) The Westwood court held that "doubt whether a project is ministerial or discretionary should be resolved in favor of the latter characterization." (Id at 191.)

Also, the court in Day v Glendale (1975) 51 Cal.App 3d 817, 824, held that CEQA may apply even to a governmental approval involving virtually no discretion if that approval "is the only point at which the environmental impact of the project may be publicly considered .. "--certainly the case here

The County's Grading Code also appears to contain several "discretionary provisions" under

Section 7-1-821, "Denial of permit." It says, in part especially pertinent to this project "If, in the opinion of the Building Official, the land area for which grading is proposed is subject to geological or flood hazard to the extent that no reasonable amount of corrective work can eliminate or sufficiently reduce the hazard to human life or property, the Grading Permit and the Building Permits for habitable structures shall be denied " (O C. Grading Code, Section 7-1-821(d).) Still another says the "Building Official may require plans and specifications to be modified in order to mitigate anticipated adverse environmental effects of proposed grading projects " (Section 7-1-821(c)) These ordinances, then, provide considerable discretion for the County in granting or denying the proposed grading permit

Finally, and contrary to the disclaimer, CEQA provides for reducing or avoiding a project's significant environmental impacts through adoption of an alternative project The DEIR in fact sets forth two alternative projects, numbers 3 and 4, which mitigate every one of the project's identified significant environmental impacts while still attaining its objectives (DEIR page 6-22) The DEIR contains no evidence that either of these two alternatives is not feasible.

Response

The comment regarding the discretionary aspects of the grading permit approval process was noted. The grading permit must be approved by the Manager, Subdivision and Grading Services prior to issuance of any grading permits for the proposed project The comment relating to alternatives is correct

RCCF-4

Comment

3 DEVELOPMENT COSTS MAY RENDER THE PROJECT ITSELF INFEASIBLE.

In making required CEQA determinations, the decision makers will have to compare the project's feasibility with that of the available alternatives. Unfortunately, the DEIR supplies little or no evidence on which to base such findings.

The feasibility of the preferred project, however, seems obvious at best On the one hand, several factors limit the selling price of the 708 housing units, including the County's affordable housing requirements (Condition 19 or recorded tract map), small lot size, crowded design, and the low market value of manufactured unit The $155,000 average per unit selling price used in the DEIR's fiscal impact report seems unduly optimistic, especially since much larger, conventional houses across El Toro Road have assessed valuations averaging only $200,000 to $250 000.

On the other hand, development costs seem unusually high, due primarily to the extensive amount of required grading (11 5 million cubic yards, DEIR page 4-22) Even for a project having much less grading than proposed here, Larry L. Simon estimated $44 million in site preparation costs in a August 1990 report prepared for Imperial Federal Savings Association

(No. RTC-90-000042), or $62,000 per units in site preparation costs alone. Land and construction costs, plus per-unit fees for roads, tollways, bridges, schools, etc would of course add to the project's costs.

The DEIR should contain the best available information on the feasibility of this project and its alternatives so that the decision makers can make a reasoned choice.

Response

The comment was noted Section 15131 of CEQA Guidelines states, *Economic or social effects of a project shall not be treated as significant effects on the environment. Economic or social effects may however be used to determine the significance of changes caused by the project.* The economic impacts of the proposed Saddleback Meadows project will not result in any identifiable physical changes, and as such, will not result in a significant impact on the environment

RCCF-5

Comment

4. THE GRADING PLAN MUST BE PROVIDED FOR REVIEW

The DEIR seems to contain only a "conceptual" and mostly illegible grading plan" (DEIR page 4-23). Since the project is a grading permit, involving a phenomenal amount of grading, the grading plan itself must be included in the DEIR to allow the public and responsible agencies to review it.

The grading plan must indicate the location of the 19 77 acres of "offside grading" (DEIR page 3-8).

We consider this omission sufficiently serious to require supplementation of the DEIR and an extension of the comment period.

Response

Please refer to response to comment SFC-1. It should be noted that following the October 22 Planning Commission meeting, detailed grading plan information, in the form of a *Grading Library,* was made available to the public This information which includes the 40 scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows was provided in an effort to respond to the high level of interest demonstrated by the public regarding the projects grading impacts

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public. This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns The Planning and Development

Services Department has multiple copies of the Grading Library on file and has sent notifications of availability to each individual that provided comments on the Draft EIR (566). Areas of offsite grading are clearly shown in Exhibit 7, Site Plan

RCCF-6

Comment

5 A FULL FAITHFUL PERFORMANCE BOND SHOULD BE REQUIRED.

Given the project's questionable feasibility and extensive geological instability, it remains a prime candidate for failure during the 18-month grading process We note that two previous owners and would-be developers of this site went bankrupt. The EIR must assess the potential safety problems resulting from a half excavated site: drainage and erosion, collapse of adjacent properties, collapse of El Toro Road, etc , as well as the possible financial liability to the County in the event of abandonment. As a mitigation measure, the County must impose as a condition of approval of any grading a full faithful performance bond sufficient to restore the site to a safe condition

Response

Please refer to Section 4.2, Soils and Geology for a complete discussion of project related geotechnical hazards and mitigation measures The financial conditions of the two previous owners of the site are not related to geotechnical conditions. Therefore, the comment regarding bankruptcy is speculative and does not require a response per CEQA. It is standard procedure for the County to require a performance bond as a condition of the grading permit

RCCF-7

Comment

6. DEIR MUST ANALYZE REAL EFFECTS ON CIRCULATION--NOT INTERSECTION LEVELS OF SERVICE.

The DEIR analyzes the project's impacts on traffic and circulation by listing the level of service expected at various intersections around the project These levels of service, based on the number of lanes, roadway geometry, and traffic volumes, generally indicate how many signal changes it will take to get through an intersection

The County must stop using this methodology, because it does not measure the true impact on transportation--i.e , on people trying to get from one place to another. Not surprisingly, typical developer-prepared EIR's invariably conclude, as does this one, no significant impact on the region's traffic and circulation Only minor road widenings, restriping traffic lanes, and installation of more traffic signals are normally deemed necessary to avoid such significant impacts

And yet, the average travel times have dramatically increased in the region, due mainly to the proliferation of traffic signals For example, in 1983, there were no traffic signals on El Toro Road from Cook's Corner to Trabuco Road By 1997, there were seven. While each one may operate at level of service "D" or better, they collectively can (and often do) add several minutes to a trip which used to take only five minutes
The average trip time more effectively measures and summarized the project's true impact on "traffic and circulation" than does simply tabulating the expected levels of service at a growing number of signalized intersections, and will more realistically reflect the inevitable and increasing conflicting movements of vehicles generated by the sprawling suburban development in this region.

Under CEQA, EIRs must be written in plain language so that the public can understand the potential effects of a project. This DEIR's traffic analysis fails this requirement, as explained above Typical travel times, with and without the project, would be included in the DEIR.

Response

The methodology employed in the DEIR to analyze project related traffic impacts is a standard protocol adopted by the County of Orange, and is used in all EIR documentation Travel time and delay analysis is not appropriate for long range planning purposes. With regard to the plain language comment, the County requires all technical reports, including traffic reports, to be summarized in language understandable by an informed public

RCCF-8

Comment

7 DEIR MUST ASSESS THE ACTUAL IMPACT ON SCHOOL.

The DEIR gives short shrift to the project's impacts on schools--a single sentence affirming the obvious, that the project would send "400 additional students into the currently overcrowded Saddleback Valley Unified School District." (DEIR page 4-220.) As mitigation, it proposes only the payment of required school fees of $1 72 per square foot of residential (page 4-224), and then somehow concludes that "[n]o unavoidable adverse impacts would occur to education services" (page 4-226)

This conclusion cannot be supported by the available evidence. As the school district has repeatedly verified, the state-required fees do not suffice to provide required school facilities in the region The DEIR must list the school facilities to be impacted by the project, describe the existing conditions at these facilities, and then assess the expected impact of the project on each.

Response

The proposed project must comply with the requirements of the State School Impact Fee Program to alleviate any incremental burden, in accordance with the School Facilities Act,

(Government Code Section 65995).

It should be noted that there are other mechanisms available to school districts to fund new school construction Additionally, The applicant will be negotiating an agreement with the School District to provide additional financing assistance to the District in order to assist in providing school facilities at the earliest possible date, just as it had done when the 318 unit project was being pursued in 1996 This Mitigation Agreement with the District would provide paywater in addition to the $1 84 per square foot of assessable space.

RCCF-9

Comment

These comments are made on behalf of the Rural Canyons Conservation Fund, Ray Chandos as an individual, Bruce Conn as an individual, Sherry Meddick as an individual, and any other person opposed to this project as proposed. These comments and any references contained herein are hereby incorporated into the official record of proceedings of this project and its successors

Response

The comment is noted.

3.19 COMMENTS AND RESPONSES - RUTAN & TUCKER, LLP. David B. Cosgrove, August 21, 1997

RAT-1

Comment

This office, and the undersigned in particular, represent St. Michael's Abbey ("Abbey") As you may be aware, the Abbey is a landowner adjacent to the proposed Saddleback Meadows Project ("Project") for which the above-referenced Draft Subsequent Environmental Impact Report ("DSEIR") has been prepared The Abbey will be directly affected by this Project.

The Abbey opposes the Project as currently proposed, for many of the same reasons already expressed in connection with the processing of Environmental Impact Report No. 561. That EIR was the subject of numerous letters from our office, raising various objections to CEQA, land use inconsistencies, and other problems with the Project The provisions of those letters are incorporated herein by reference, and we would request that copies of them be made a part of the administrative record in the processing of this DSEIR.

The Abbey believes there are a number of legal, environmental, planning, and other defects in the currently proposed Project This letter, and the items incorporated herein by reference, constitute the Abbey's comments under CEQA public comment procedures for DSEIR No. 566

Response

The comment was noted. It shall be noted DEIR 561, including the response to comments document, had been incorporated by reference into DEIR 566

RAT-2

Comment

1 <u>The Project description and public review of the Project are flawed.</u>

At the outset, the Abbey must note that there is significant confusion regarding exactly what is the Project being reviewed The Project chronology at DSEIR 2-8 and 2-9 indicate the catalyst for the preparation of this DSEIR was an application for a Phase I grading plan The Project description at DSEIR 3-1, et seq., seems to indicate the Project is the actual construction of a 705-unit affordable housing project This project includes a 1 5 acre neighborhood commercial center, which is referenced at DSEIR 3-1, but not analyzed further in other sections of the DSEIR Moreover, DSEIR 3-15 lists approval of a grading plan and issuance of a grading permit as included within the discretionary actions covered by the environmental review

Response

Although the grading permit application was the initiating action which resulted in the determination that EIR 566 be prepared, grading is only one of the issues being evaluated in the CEQA document. EIR 566 evaluated the whole of the action, which is the development of 705 unit manufactured housing subdivision and a small commercial site on the project site. Please refer to Section 3.0 of the DEIR for a complete discussion of the project description, and Response to Comment SFC-1 The 1 5 acre neighborhood commercial center is a component of the proposed project that is evaluated throughout the entirety of the DEIR.

RAT-3

Comment

Given this, an obvious question arises. Where is the grading information? Neither the DSEIR nor the grading study attached as Appendix D includes any specific grading plan. In fact, page 4 of the grading study indicates that the report was conducted at what it terms a "EIR level," and that more detailed evaluation would occur during 40-scale grading plan review. Given the imminence of the grading activities, and their role as the entire cause for the environmental processing, this in inadequate Title 14, California Code of Regulations § 15147[1] requires an EIR to include technical information "sufficient to permit full assessment of significant environmental effects by reviewing agencies and members of the public " This Project appears to be at a "construction project" level, as that term is used in CEQA Regs. § 15146(a), and consequently deferred analysis of the full range of all effects from the massive grading proposed is inappropriate.

Further, I am advised that the 40-scale grading plan, and other information required to determine and assess the specific impacts of the proposed grading, has not been publicly available, even up until a few days prior to the announced deadline for submission of DSEIR comments This is a "construction phase" project proposal, it is not a general plan or program EIR Consequently, all of the specifics of the grading proposal should have been formulated, and available for public review and comment, prior to Project approval. The DSEIR has failed to follow this process Attached as Appendix "A" is a listing of all "mitigation measures" which defer analysis on various topics until the time of grading permits Obviously, no grading permit can issue without a specific grading plan, yet that plan was not proffered for public review and comment. Given the large number of other analyses which hinge on the grading information, such information certainly constitutes "significant new information" as that term is used in CEQA Reg § 15088 5, without which full, adequate public review is impossible. The DSEIR therefore must be re-noticed and recirculated after all the appropriate grading and other information has been available for the full comment period

[1] Cited herein as "CEQA Regs "

Response

This comment was addressed in response to comment SFC-1. It should be noted that following the October 22 Planning Commission meeting, detailed grading plan information, in the form of a *Grading Library*, was made available to the public. This information which includes the 40 scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows was provided in an effort to respond to the perceived high level of interest demonstrated by the public regarding the project's grading impacts

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns. The Planning and Development Services Department has multiple copies of the Grading Library on file and has sent notifications of availability to each individual that provided comments on the Draft EIR (566).

RAT-4

Comment

2. Analysis and incorporation of mitigation measures is improperly deferred

No doubt in large part due to the failure to have specific grading information available, an entire host of items which require environmental analysis has been improperly deferred Appendix "A" hereto is a chart of deferred analysis listing the various mitigation measures purportedly imposed upon the Project, but which actually reveal that fundamental aspects of the mitigation of impacts on endangered species such as the Riverside Fairy Shrimp, impacts on the California Gnatcatcher, acoustical analyses, street configurations and lines of sight, drainage studies, and design of storm drain improvements, to name a few

The environmental impacts of these components of the Project are neither described or assessed, and no readily identifiable mitigation standard for these impacts is adopted. Given this, the conclusions regarding mitigation of the related impacts to a level of nonsignificance is unsupported by any evidence in the record, and therefore fails to meet the standards imposed upon the lead agency under CEQA Regs § 15091(b).

Response

The comment was noted. DEIR 566 incorporated by reference the entirety of DEIR 561, including all of the technical studies completed for the previous proposal Any updates required to existing studies will be completed prior to the issuance of the grading permit for the proposed project

Several of the mitigation measures contained within DEIR 566, primarily standard conditions (SC) mitigation measures, mandate the completion of a mitigation activity *prior to the issuance of any grading permit.* Completion of the specific mitigation activities addressed

by these mitigation measures, at this stage in the planning process, would be premature, as they would be conjectural. An environmental assessment is not required to "guess" at an impact and the required resulting mitigations. Thus, there is no improper deferral of analysis as claimed Should any subsequently imposed mitigation measure result in the development of significant new information not previously contained in the DEIR, an appropriate supplemental CEQA document would be prepared at that time.

RAT-5

Comment

3 The available grading information demonstrates the Project should not proceed.

Although incomplete, what grading information is included in the DSEIR clearly indicates the Project should not proceed The entire Project area is underlain by landslides, and excavations reveal heavy seepage (DSEIR 4-31; appendix D, p. 7). In addition, the oldest and deepest landslides on the property are merely projected from "necessarily limited exploratory borings." (Appendix D, p. 8, 16) This is hardly the type of area which is suitable for the projected 11.5 million cubic yards of direct and remedial grading.

Response

The comment restates information in DEIR 566 and merely expresses an opinion relative to grading the project site.

RAT-6

Comment

Incredibly, the DSEIR identifies 4" to 6" of settlement likely over the graded area It finds such impacts insignificant, based upon a wildly optimistic presumption that settlement will occur at uniform rate, and occur evenly over a well-distributed area. (DSEIR 4-33) With all due respect, the courts are filled with multi-party landslide cases, involving millions of dollars of damage, on ground settlement which is considerably less extensive This effect must be regarded as significant, and must be mitigated.

Response

The comment correctly restates information contained in DEIR 566, and expresses an opinion relative to landslide related lawsuits Because County of Orange Standard Conditions of Approval require stability following grading, geotechnical impacts will be reduced to less than significant levels, following implementation of all mitigation measures.

RAT-7

Indeed, the grading information in the DSEIR is contradictory At page 4-24, it is indicated

that no blasting is anticipated. Mitigation measure AM 2-33 contemplates blasting of hard cemented sandstone beds, however. If the Project proponent and its consultants cannot at this phase even uniformly identify the grading measures needed, how is the County or the reviewing public to accurately determine the grading impacts from this proposal?

Response

The referenced statement on Page 4-24 of the DEIR is a statement of general conditions encountered during the exploratory drilling phase of the geotechnical analysis AM 2-33, on Page 4-31 of the DEIR, discusses excavation options should certain earthen materials be encountered during the grading phase of the project although it is not anticipated

RAT-8

Comment

Last December, the Board determined this site was not appropriate for a 318-unit development The comments already submitted by St. Michael's Abbey on grading and soils matters in connection with EIR No 561 remain fully applicable here, are incorporated herein by reference, and show grading impacts will be significant These effects remain unmitigated Obviously, the site remains unsuitable for the far more intense 705-unit proposal now proposed

Response

Both DEIR 561 and DEIR 566 contain detailed information on existing site geotechnical conditions, project impacts, and required mitigation measures Refer to the Responses to Comments received on DEIR 561

RAT-9

Comment

4 Seismic impacts are improperly assessed

Appendix D, page 11, seems to dismiss seismic risks to the site, with a generalized discussion of risks inherent throughout Southern California Given the grading constraints on the property, a more particularized discussion of potential faulting and its potential impacts on the proposed Project are required Specifically, DSEIR 4-20 lacks any discussion of the El Modena or Norwalk faults, both of which appear sufficiently proximate to the Project site to create seismic disturbances.

Response

No active or potentially active faults have been identified onsite Primary regional faults

which could seismically affect the project site have been identified in Table 7 on Page 4-20 of the DEIR. Mitigation measure SC2-7 reduces potential seismic impacts to less than significant levels.

RAT-10

5 The DSEIR contains a number of improper or vague mitigation measures

In order to meet legal requirements, a mitigation measure must have a readily identifiable, performance-based standard which must be met. A number of the mitigation measures in the DSEIR fall short of this requirement

For example, AM 2-22 merely contains advisory language that certain types of rock are "best not incorporated" in fills AM 2-27 contains only recommendations, and no requirements AM 2-45 calls for "precautions in respective expanse of soils, "which is vague, and should be further specified.

Mitigation measure SC 2-4 simply cannot be met. The DSEIR recognizes the incompatibility of the Project with O'Neill regional Park (See DSEIR 4-12.) The degree of required grading eliminates any compatibility with natural land characteristics of adjacent open space areas, making compliance with this mitigation measure impossible

Response

Mitigation Measures AM 2-22, AM 2-27 and AM 2-45 are standard Soils Engineer recommendations which supplement the County's standard conditions of approval to identify potential geotechnical constraints. Mitigation Measure SC 2-4 will ensure that the transition between the project site grading and adjacent sensitive land uses is as compatible as possible. Other PDF, SC and AM mitigation measures will ensure an adequate transition between proposed grading and adjacent land uses

RAT-11

Comment

6 A number of significant environmental impacts are improperly addressed

The DSEIR is also rife with inaccurate or contradictory information in assessing environmental impacts, and concludes they are insignificant. For example, the hydrology study listed in Appendix L appears to have been done for a 318-unit proposal, not the 705-unit proposal listed in the project description. (See hydrology map and "Discussion" text in Appendix L) DSEIR 4-39 contains an admission that the drainage analysis is inadequate, in stating that it may need to be updated after review of the 40-scale rough grading plans. The preliminary master plan of storm drain improvements listed in PDF 3-1 (DSEIR 4-41) references a tentative map 15230, not the Project, and is essentially unreadable. This map gives no legible reflection of what drainage facilities will be built, where, and no narrative or

other graphic summary providing any further explanation appears in the DSEIR. All these studies need to be redone to analyze the Project now proposed

Response

PDF 3-1 does not reference any Tentative Tract number. Hydrology analysis and data contained within the DEIR evaluates the effects of implementation of the proposed project on onsite hydrology Baseline hydrology information contained in DEIR 561 remains applicable to DEIR 566.

RAT-12

Comments

Regarding noise, DSEIR 4-110 assesses noise from a projected 3,780 daily Project trips. DSEIR 4-52 indicates the daily trip projection is 6,220 The conclusions regarding vehicular noise are therefore suspect, and should be redone In addition, DSEIR 4-113 indicates that air conditioning units are standard for housing projects, but fails to require such units as a mitigation measure for exterior noise. This should be included as a mitigation measure. IN addition, the entire acoustical analysis appears to be deferred (see DSEIR 4-115). IT should be conducted now

Response

Please refer to the Introduction on page I-1 of this report for an explanation of timing for mitigation implementations The reference to 3,780 daily trips is a typographical error The acoustical analysis was not deferred and is based on the current traffic study completed for the 705 unit manufactured housing project Although the County of Orange may require the installation of mechanical ventilation units as part of the building permit process, air conditioning units are normally a market driven feature

RAT-13

Comment

Most strikingly, the DSEIR completely "ducks" impacts to the Riverside Fairy Shrimp, Coastal Sage Scrub habitat, and the California Gnatcatcher DSEIR 4-152 indicates 105 acres of off-site mitigation will be reacquired, but the availability or location of this mitigation property receives no discussion DSEIR 4-157 delays the Gnatcatcher survey until some future time, and fails to provide the County or the reviewing public sufficient information to determine Gnatcatcher impacts from the Project whose approval is sought

Response

Refer to Response to Comment USFWS-3 and USFWS-16 addresses this comment. Section

4 7 6 of the DEIR, beginning on Page 4-151, outlines a comprehensive mitigation program required to mitigate the impacts to onsite biological resource as a result of project implementation

RAT-14

DSEIR 4-199 indicates a population generation estimate of 2.57 persons per household. The fiscal study, in Appendix G, page 22, uses 2 4 This inconsistency should be reconciled

Response

The official County of Orange average household population is 2.57 persons/dwelling unit The population generation factor (2.4 persons per dwelling unit) used in the fiscal impact report, contained in Appendix G of the DEIR was obtained from the California Department of Finance, based on January 1996 data. As of January, 1996 there were 179,571 residential units within the unincorporated portions of the County, containing 74,842 residents, with an average of 2.4 persons/dwelling unit.

RAT-15

Comment

Regarding transportation, the DSEIR notes the nearest bus stop is between 2.25 and 2 5 miles from the Project site (DSEIR 4-52) This is completely inconsistent, with the proposed affordable nature of the housing development, whose residents are likely to be more heavily reliant on public transportation Extension of service or alternative project locations should therefore be analyzed. There is no separate analysis of the traffic, noise, or air quality impacts of the buss which will be required to transport the estimated 399 additional students which will come from the Project, to already overcrowded schools (DSEIR 4-218) More fundamentally, students, all the while acknowledging current classrooms are overcrowded DSEIR 4-216 contains a number of ambiguous conclusions regarding impacts on sheriff, fire, education, and library services The double negative wording of these sentences seems to indicate each may have a significant impact, none of which is mitigated.

Response

The Orange County Transportation Authority (OCTA) routinely adds public transit lines and stops to their system to accommodate demand. Project related effects on Public services and utility systems are evaluated in Sections 4 12 and 4 13 of the DEIR, beginning on Page 4-209 The OCTA which has reviewed the subject EIR, has not requested or recommended bus facilities in conjunction with the proposed project

RAT-16

Comments

7. The alternatives analysis is insufficient

CEQA Regs § 15126(d)(5)(B) calls for review of alternative locations, or finding regarding the infeasibility of alternative locations. The DSEIR fails to address alternative locations.

Response

As outlined in *Goleta II,-Citizens of Goleta Valley v. Board of Supervisors, (1990) 52 Cal. App.3d 553*, alternative site analysis is not warranted for certain types of projects, including those where the applicant has vested development rights based on an approved specific plan and a recorded tract map. Alternative site analysis is appropriate for projects with other viable site options Several alternatives to the proposed project were evaluated in both DEIR 561 and DEIR 566

RAT-17

Comment

The alternatives discussion contains inappropriate language suggesting some sort of legal obligation for the county to refund various payments, many of which we understand were made by the Project applicant's predecessor in interest, and not the applicant itself. While we have not conducted a legal analysis of these somewhat unusual claims, we have been informed that many of the water and other development impact credits resulting from these previous payments are fully transferable, and could be marketed by the owner of the Project at any time. Consequently, the statement regarding any obligation for refunds in the event of consideration of a "No Project" alternative appears incorrect factually, let alone irrelevant to the environmental analysis the DSEIR purports to be undertaking.

Response

Under the Alternative 1 discussion on Page 6-4 of the DEIR, previously paid development fees, utilized to construct capital facilities, are listed, documenting the major infrastructure related capital expenditures made by the applicant to date Implementation of the No Project Alternative would not require any infrastructure, and as such, the applicant would seek a refund of fees previously paid for site infrastructure although, the validity of such a refund would eventually have to be tested in the courts

RAT-18

Comment

The DSEIR makes clear that the "No Project" alternative is the environmentally superior

choice Consistent with prior representations it has made, however, the Abbey has no objection to the 100-unit proposal, currently listed as Alternative 3. The Abbey believes this represents a sound balance between the environmental constraints on the site, and the Project proponent's desire for some degree of development on the property

Response

The comment merely states the commentator's preference for Alternative 3, the 100 unit alternative.

RAT-19

Comment

8 The DSEIR's land use planning presumptions are inaccurate.

Although not precisely related to environmental impacts, the DSEIR contains a number of statements regarding land use entitlements the Abbey believes are inaccurate The proposed Project is not, as the DSEIR asserts, essentially exempt from the Foothill Trabuco Specific Plan ("FTSP") (DSEIR 4-4, 4-11) The Growth Management element of the county's General Plan was last revised on October 19, 1993, after the adoption of the Foothill Trabuco Specific Plan in 1991 This element is the self-described "key resource document for growth management concerns " Subsection (E) (6) requires that all new development within the Foothill Trabuco Specific Plan planning area "shall be rural in character, and shall comply with the policies of the [Foothill Trabuco Specific Plan] .. in order to maintain a buffer between urban development and the Cleveland National Forest," The Project is clearly contrary to these goals, does not comply with FTSP standards, and is therefore inconsistent with the General Plan.

Moreover, the Project is not "exempt" from FTSP requirements even under the terms of the Specific Plan Section 3 2(c) of the Bridlewood Residential District Requirements specifically indicates CEQA review is required prior to the issuance of grading permits for the previously-approved map. Consequently, additional discretionary review and approval was specifically contemplated prior to the time the Project was to be implemented. Any contention of "vested rights" from the filing of the map is therefore inappropriate

Response

Refer to Sections 3 0 and 4 1 of DEIR 566 provide a complete discussion of the consistency of the proposed project with land use policy documents As documented, the proposed 705 unit manufactured housing project is consistent with the Foothill Trabuco Specific Plan and the countywide General Plan. The Growth Management Element of the OC General Plan assumes the development of the 705 unit project.

RAT-20

Comment

In addition, there is some question regarding the validity of the map in the first instance, given the chronology which the DSEIR lists. The map was apparently approved in December of 1979, and recorded some nine years later, in December 1988. The chronology points out that the last stay was granted only until July 24, 1986 There is no indication, at least in the chronology, that the County approved any further extension What was recorded therefore very may well have been an expired map, which would vest no development rights whatsoever, regardless of any claimed FTSP "exemptions"

Response

Tentative Tract Map 10692 was recorded December 16, 1988, in accordance with the requirements of the County of Orange in effect at that time In addition, the FTSP recognizes the legal status of the recorded Tract Map

RAT-21

Comment

9 Conclusion

Even without all the defects listed above, the DSEIR concludes a number of significant impacts are unmitigated, including land use impacts and grading impacts Given this, the Project approval will require a Statement of Overriding Considerations, which the Abbey believes is wholly insupportable in this context.

Put simply, the Project is inconsistent with the Abbey and the neighboring Ramakrishna Monastery With all due respect to housing needs, the Abbey submits that the roles the Abbey and Monastery plan, and the services they provide, are unique assets in Orange county. The Abbey would hope that the County would value these assets more than another in what many consider to be all-to-common residential developments, and not issue a Statement of Overriding Considerations condoning the Project's inconsistency with surrounding land uses

Whether seriously proposed in its own right, however, or merely as a backdrop to make a previously-rejected project appear more palatable, the DSEIR is insufficient to support the Project approval sought For this reason, the Abbey respectfully requests the County to fail to certify the DSEIR, and to reject any grading applications, or other development permits, which may be sought pursuant to it

St Michael's Abbey thanks the County for the opportunity to respond to this DSEIR, and looks forward to working with the county and the applicant on a more environmentally sound Project proposal.

Response

Please refer to response to comments RAT-1 through RAT-20

3.20 COMMENTS AND RESPONSES - SFC CONSULTANTS/Saundra F. Jacobs, REA, Principal, August 22, 1997

SFC.2-1

Comment

SFC Consultants (SFC) has reviewed the Saddleback Meadows Draft Subsequent EIR 566 ("DSEIR 566" or "EIR") for CEQA compliance and consistency. SFC understands that the County of Orange required DSEIR 566 to be prepared as a result of a grading permit application having been submitted by the developer of the Saddleback Meadows project for the construction of grading improvements for 705 manufactured single family dwelling units with concomitant infrastructure and utilities on approximately 222 acres

Before getting into the details of the EIR adequacy, some very basic concerns about this DSEIR 566 should be enumerated First, although the filing of the grading permit application appears to have been the event which triggered the preparation of DSEIR 566, the 40-scale grading plans upon which the permit application is based have not been made available for public review, nor has the geotechnical review of those plans been made available. In addition, these materials have not been addressed in or made a part of DSEIR 566. As a result, a full assessment of the construction level impacts of the project has not been done as required by CEQA

Response

Please refer to response to comment SFC-1

It should be noted that following the October 22 Planning Commission meeting, detailed grading plan information, in the form of a *Grading Library*, was made available to the public. This information, which includes the 40 scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows, was provided in an effort to respond to the high level of interest demonstrated by the public regarding the project's grading impacts.

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public. This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns The Planning and Development Services Department has multiple copies of the Grading Library on file and has sent notifications of availability to each individual that provided comments on the Draft EIR (566)

SFC.2-2

Comment

Second, whether or not the project analyzed in this DSEIR 566 is a grading plan application or the basic development plan, it is extremely important for this EIR to provide as much detail

as possible in discussing environmental impacts and providing relevant mitigation measures Gathering further information and complying with resource agencies in the future is not proper mitigation However, this type of mitigation is listed throughout the EIR exactly 51 of the 200 EIR mitigation measures are based on "Prior to Grading Permit" timing. It is important for the Planning Commission to realize that at this late stage in the development, many of the required mitigation measures should be formulated and be subject to public scrutiny now, not at a later date after the EIR has already been certified

Response

This comment has been addressed in the Introduction section of this document and response to comment SFC-1

Several of the mitigation measures contained within EIR 566, primarily standard conditions (SC) mitigation measures, mandate the completion of a mitigation activity *prior to the issuance of any grading permit.* Completion of the specific mitigation activities addressed by these mitigation measures, at this stage in the planning process, would be premature. Should any subsequently imposed related mitigation measure result in the development of significant new information not previously contained in the DEIR, an appropriate supplemental CEQA document would be prepared at that time

A biological resource mitigation program will be prepared and submitted for review to both the California Department of Fish and Game and the U.S. Fish and Wildlife Service, prior to the issuance of grading permits though the 404/401/1603 permit process. The biological resource mitigation program will focus on eliminating or minimizing adverse impacts to biological resources through one or more of the following options: 1) Resource avoidance/preservation, 2) minimization of resource impact, 3) onsite habitat restoration, 4) onsite habitat relocation, 5) offsite habitat restoration and/or 6) impact fee programs/mitigation bank participation

SFC.2-3

Comment

Third, the geotechnical section of the EIR is also riddled with references to "gathering future information as mitigation measures". This may be acceptable if the environmental issue remains significant after mitigation; however, the EIR states that the geotechnical mitigation will mitigate any future and unknown impacts to less than significant levels. This is not a realistic conclusion considering future unknown impacts A geotechnical review of the grading plans is the mechanism with which we can be assured that the mitigation measures recommended will actually work

Response

Refer to response to comment SFC-1

SFC.2-4

Comment

Fourth, the traffic section of the DSEIR arbitrarily limits its review and impact analysis of intersections to the El Toro Road/Santa Margarita Parkway intersection and intersection to the north thereof. No analysis has been presented for critical intersections to the south Also, there is no indication in the traffic study if the traffic calculations have been adjusted to account for the difference in projected use versus actual use of the Foothill Corridor Published reports indicated that the San Joaquin Corridor's projected usage was overestimated by nearly 50% The DSEIR should include all intersections that will be impacted by 705 units, including El Toro Road and the San Diego Freeway (I-5), and especially if the Foothill Corridor estimates are similarly overstated In addition, not withstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the traffic impacts from the reuse of the El Toro MCAS as a commercial airport. It is also not clear from the DSEIR if the regional traffic model utilized for the project impacts, and cumulative project impacts, actually incorporate the regional changes to the traffic resulting from a commercial airport at El Toro

Response

Please refer to responses to comments CMV-1 through CMV-9

SFC 2-5

Comment

Fifth, the DSEIR provides a baseline discussion of the impacts from the El Toro MCAS fly-overs. However, the impact section of the EIR fails to identify a noise analysis or potential CNEL contours as a result of the base reuse plan as an active commercial airport No mitigation measures are included for a multiple fly-over commercial airport. Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the noise impacts from the reuse of the El Toro MCAS as a commercial airport or the regional traffic noise associated with the commercial airport. The DSEIR states "Depending upon future site re-use, aircraft noise may or may not be an important issue" The aircraft noise from a commercial airport at El Toro <u>will be an important issue</u> and must be addressed in the DSEIR

Response

MCAS El Toro reuse plans have not been finalized, and as such, noise analysis associated with the reuse would be speculative However, it is acknowledged that subsequent to the closing of MCAS, the potential exists for the development of a civilian airport on the MCAS site. Draft EIR 563 "MCAS El Toro Re-Use," which was certified on December 11, 1996, analyzed the impacts associated with such a use. Depending on the configuration of a future civilian airport, the potential exists for on-going impacts. Draft EIR 566 contains sufficient

mitigation measures to effectively mitigate all potential current and future noise impacts.

SFC.2-6

Comment

Sixth, it is also important to note that the biological mitigation for ACOE and CDFG coordination may change the site plan, which would then require a revised EIR. If site plan redesign is not feasible, then the EIR should point out where the off site mitigation locations will be In addition, the EIR indicates in several places that mitigation measures cannot be implemented by changes to the grading plan because this proposed project is a legally recorded tract map. However, under the Federal Endangered Species Act, all "take" must be accommodated, regardless of tract recordation or not.

Response

Please refer to Section 4.7 of the DEIR for a discussion of project related impacts to biological resources. Also refer to the introduction section of this document for a complete discussion of the planning process associated with the grading application, and the related timing of mitigation measures

A biological resource mitigation program will be prepared and submitted for review to both the California Department of Fish and Game and the U.S. Fish and Wildlife Service, prior to the issuance of grading permits. The biological resource mitigation program will focus on eliminating or minimizing adverse impacts to biological resources through one or more of the following options: 1) Resource avoidance/preservation, 2) minimization of resource impact, 3) onsite habitat restoration, 4) onsite habitat relocation, 5) offsite habitat restoration and/or 6) impact fee programs/mitigation bank participation.

SFC 2-7

Comment

Seventh, the alternatives in the EIR should reflect alternative grading scenarios together with the comparable grading impacts associated with them DSEIR 566 alternatives currently compare alternative land uses or densities, although these tend to be limited to different grading scenarios Also, CEQA requires an alternative location to be discussed. This issue is missing in the EIR and should be included.

Response

Each of the alternatives evaluated in the DEIR contain a grading scenario different from that of the proposed project. Please refer to response to comment RAT -16 regarding alternative location.

SFC.2-8

Comment

Eighth, the EIR mitigation measures are also plagued with the word "should" instead of "shall" "Should" mitigation measures will become "shall" upon certification of the EIR If the lead agent is not sure of a mitigation measure's applicability at this stage of approval, then perhaps the lead agent does not really want to implement important mitigation measures, but simply provide the necessary environmental paper work for a recorded tract map

Response

All *should* wording contained within mitigation measures was changed to *Shall.* Please refer to Section II of the Corrections and Additions to the DEIR document.

SFC 2-9

Comment

Finally, the Planning Commission should keep in mind, that this recorded map for 705 units does not tie the County to instant EIR certification, in which CEQA simply becomes a necessary evil CEQA allows for a public agency to not approve a project as proposed, if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment (CEQA Guideline Section 15021) The Planning Commission can only override unavoidable adverse impacts if it finds that there are legitimate social, economic, or other considerations which truly outweigh such impacts. Simply implying that affordable housing is an overriding consideration is insufficient to justify the significant environmental effects of the project.

Response

The comment restates provisions of CEQA related to alternatives, mitigation and overriding considerations

SFC 2-10

Comment

CEQA Guidelines Section 15161 indicates that "The EIR shall examine all phases of the project including planning, construction, and operation" A phased project must be evaluated in light of each phase The first sentence of Section 1.0 Executive Summary, Subsection 1.1, page 1-1, describes the project as "the phased development of 705 manufactured single family housing units " yet the EIR states on page 3-16, Section 3 4 Project Phasing that grading will occur in one phase This statement, in turn, appears to be at odds with the reference (in Table 3 on page 2-8 of the EIR) to the developer's submittal of an application for "Phase I Grading Plan" on December 3, 1996 Therefore is the grading being phased, or is the

construction being phased? If the grading is phased, a phasing plan should be submitted with the EIR distribution and review DSEIR 566 should describe what the grading phases are, including how much grading in Phase I, II, III etc A Phasing Plan should be included as part of this DSEIR, and not just be made another condition of approval Moreover, if residential construction is also being phased in addition to the grading, this needs to be spelled out and addressed in the DSEIR The Planning Commission cannot certify a DSEIR having such piece-meal information on grading and phasing

Response

As stated in the DEIR, all grading will be completed in one continuous phase Although only the first portion of the grading plans, referred to in the DEIR as *Phase 1* grading plans, had been initially submitted in conjunction with the submittal of the grading application. The remaining portion of the site (40 scale drawings) was intended to follow upon review by the County of the first portion. This was done to ease the review process by the County due to the large size and complexity of the site. Although it should be noted that all the geotechnical and soils information provided to the County was inclusive of the entire site. This is not an uncommon procedure for large and complex sites as the grading review process is one of a continuum in that there is a back and forth interactive exchange between County staff and the soils/geotechnical and civil engineers.

SFC 2-11

Comment

Section 2.0 Introduction

Technical error. Page 2-7, Table 3 chronology of June 13, 1984· Ordinance 3486 should read - Ordinance 3468

Response

The error was noted and the correction incorporated into the Final EIR. Please refer to Section II of the document Corrections and Additions to the DEIR

SFC.2-12

Comment

Page 3-8, first paragraph. The project description indicates that the removal of the mandated Inclusionary Housing Program requirements could undermine the County-wide calculation used to eliminate the affordable housing mandate. This statement on the surface may seem valid enough, but there is no factual evidence in the EIR to support such speculation Instead of mere speculation, the DSEIR should include a thorough discussion of housing issues, including the possibility of eliminating the need for affordable units and allowing for a more environmentally sensitive project to be considered

Response

A thorough analysis of housing issues associated with the affordable housing provisions associated with recorded tract 10692 is beyond the scope of analysis of DEIR 566, and is not warranted, nor was it identified as a potential significant impact in the County's Initial Study and Notice of Preparation re-issued for Subsequent DEIR 566 on February 6, 1997.

SFC.2-13

Comment

Page 3-8, Project Features, indicates that a 1 4 million-gallon water tank would be required for this project of 705 units EIR 561, which analyzed 318 units, also required a 1 4 million-gallon water storage tank The quantity of fire flow, and stored water necessary for the 705 units therefore appears inconsistent If two 1 4 million-gallon tanks, or one 2 8 million gallon tank are required, this would significantly increase either the size of the tank location for two tanks, or the amount of grading and screening that would be needed for an increased tank size The water tank site is owned by the Trabuco Canyon Water District, however, Mr. Bruce Bonner, General Manager of the District was not aware of the discrepancy, and was planning to comment on the EIR for the proper information Without the proper water storage available for 705 units, the project could not be developed and the DSEIR could not be certified. The extent of grading for the increased tank size and its location must be addressed in the DSEIR. Changing the size of the tank size will also require an amendment to the original Recorded Tract Map Once the County receives this information, a revised section for review and comment by the public should be prepared

Response

The water tank site was part of the project site and was dedicated to the Water District, in conjunction with recordation of TT 10692 The 1.4 million gallon water tank has been sized to serve a larger area than the proposed project, and remains adequate to serve project related fire flow and domestic service demand requirements.

SFC 2-14

Comment

Page 3-16, Project Phasing Project grading is noted as being implemented in one phase, but this does not square with the fact that the developer has only submitted 40-scale grading plans for "Phase I" of the project which, apparently, only involves a portion of the proposed 705 units. This inconsistency should be resolved because, obviously, if the grading is to occur in several stages, instead of in "one phase," then the grading impacts would occur over a much longer period of time than the 18-month estimate set forth in the DSEIR

Moreover, if the EIR shows and states the grading in one phase, then the entire grading plan at 40 scale should be made part of the Appendices to the EIR or, at the very least, the grading

Response

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Moreover, if the EIR shows and states the grading in one phase, then the entire grading plan at 40 scale should be made part of the Appendices to the EIR or, at the very least, the grading

plans (and the geotechnical reports needed to fully understand them) should be incorporated by reference so that members of the public could review them. Either solution will require DSEIR 566 to be revised and recirculated in accordance with CEQA Guidelines Section 15088.5.

The Project Description has inaccurately depicted the project phasing CEQA Section 15126 requires a complete project description, including all phases, and should be included for review with this DSEIR Since it appears that the grading will be in phases, this project description is not consistent with CEQA Guidelines Section 15126 and cannot be certified as adequate.

Response

Refer to response to comment SFC-10

SFC.2-15

Comment

Section 4.0 Existing Conditions, Project and Cumulative Impacts, Mitigation Measures and Level of Significance After Mitigation:

Section 4.1 Land Use/Housing

Notwithstanding the requirements of CEQA Guidelines Section 15126(c), the EIR makes no attempt to explore feasible measures to mitigate land use impacts to surrounding areas. Suggested land use mitigation should include Setback criteria, buffer zones of vegetation, pet restrictions, ridgeline protection, project phasing coupled with an Annual Monitoring Report under Zoning Code Section 7-9-103.2(a)(12) to identify imbalances between development and infrastructure, etc These new mitigations should be included in a revised draft EIR and recirculated for public review and input

Response

This comment is addressed in comment SFC-1 and sections 2.0, 3 0 and 4.1 of the DEIR for a discussion of the recorded tract map

SFC.2-16

Comment

CEQA Guidelines Section 15131 (b) expressly recognizes that construction can adversely impact religious practices "if the construction of a road and the resulting increase in noise in an area disturbed existing religious practices in the area, the disturbance of the religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environment" While the Land

Use/Housing section of the EIR indicates that the impacts would remain significant, unavoidable and adverse, there is no attempt to mitigate impacts on surrounding religious uses to any level at all

Response

Mitigation measures are proposed throughout the DEIR to reduce/eliminate adverse impacts to surrounding land uses These mitigation measures are summarized in Section 7.0 of the document.

SFC 2-17

Comment

Section 4.2 Soils and Geology

Although SFC was not able to gain access to any of the current grading plans at the County, SFC has learned that, for a price, the developer made copies of such plans available to certain interested parties and that the plans showed only half of the grading that is proposed for the 705-unit project. As stated above, if the rough grading (including all remedial grading) is to be accomplished in one phase, then the plans showing all the grading work to be performed should be made available for public review and DSEIR 566 should be revised and recirculated to incorporate such plans and all related geotechnical reports. This is particularly important with respect to the remedial grading improvements, (which account for the vast majority of the rough grading operations) because mitigation measures, such as shear keys, cannot be property evaluated without the grading plans and soils reports, and cannot be constructed in a piecemeal fashion without the risk of slope instability

Response

Please refer to response to comment SFC-1 and SFC-2 1.

It should be noted that following the October 22 Planning Commission meeting, detailed grading plan information, in the form of a *Grading Library,* was made available to the public This information, which includes the 40 scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows, was provided in an effort to respond to the high level of interest demonstrated by the public regarding the project's grading impacts

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public. This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns After sending notifications of availability to each individual that provided comments on the Draft EIR (566), the Planning and Development Services Department received only five (5) requests for sets of the Grading Library from interested parties and individuals.

SFC.2-18

Comment

Page 4-16, Ground Water: It appears from the State Water Resources Board map of wells in the area that there are at least five wells located northerly, westerly and southerly of the site and landslide areas. These wells depend on the groundwater supplies to remain in operation. During remedial grading, perched groundwater and saturated zones will be encountered (according to the geotechnical study). This excess groundwater will require pumping to a point to where the bottom layer of the 120-foot key cut will need to be cleaned out. The EIR does not discuss the high probability that this excessive pumping may impact groundwater and groundwater recharge to these surrounding wells Impacts to groundwater and surrounding wells is considered a significant impact in CEQA Guidelines Appendix G(h) and (I). The EIR provides neither discussion of this important issue, nor any mitigation for potential impacts to these wells. While the EIR preparer, or the geotechnical engineer for the project, may speculate that the surrounding wells are being fed by Aliso Creek or "other groundwater", **there is no factual basis to support the conclusion that there will be "no significant groundwater impact" caused by project grading and development.** The Planning Commission must be provided with complete information on this issue before passing on the adequacy of DSEIR 566, and gathering groundwater information during remedial grading for future decisions, and complying with the water resource agencies, is not the proper way to proceed

Response

The comment is speculative All grading and any required groundwater pumping will be conducted in compliance with Orange County Grading and Excavation Code requirements The project geologist has indicated that the groundwater encountered on the site is of a perched nature due to the geology of the property and that dewatering activities will not impact adjacent area wells.

SFC.2-19

Comment

Page 4-24, last two paragraphs These paragraphs state that "unfavorable conditions (i.e. "Some ground water") can be mitigated by implementing corrective grading concepts". Yet the DSEIR only speculates on the mitigation necessary to truly lessen future impacts to the development from groundwater and postpones for future analysis whatever specific mitigation measures might eventually be proposed by the soils engineer for the project (see page 4-25). This is not in keeping with CEQA.

Once the shear keys are cut on the project site, the DSEIR indicates that subdrains will be required. Subdrains and dewatering facilities are permanent features, and are notoriously unreliable. This was the case in the Hidden Hills development located immediately adjacent to the south of this site, and is the proposed location of the emergency access to Saddleback

Meadows In this study, the buttress subdrains failed, or in most cases the subdrains were missing and groundwater backed up behind the buttress fill, severely impacting the residences and infrastructure. To truly mitigate geotechnical impacts to less than significant levels, and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendations should be included in this DSEIR prior to certification In addition, if in fact the subdrains are only to work temporarily, the DSEIR does not explain to where these subdrains will drain. It is presumed that these features will drain to Los Alisos Creek, which is shown as a blue line on the USGS Quad Map The EIR should discuss the impact of a permanent alteration to the flow of Los Alisos Creek A higher degree of specificity on this important issue is required prior to EIR certification

Response

DEIR 561 and DEIR 566 contain a comprehensive discussion of geotechnical and hydrology impacts associated with the proposed project The commentator's statement regarding Hidden Ridge Development "i e , missing sub-drains" has no bearing on Saddleback Meadows Please refer to Sections 4.2 and 4 3 of these documents

SFC.2-20

Comment

Page 4-25, Mitigation Measure 2-1, state that "A comprehensive remedial grading mitigation plan has been designed to stabilize the project site " yet on page 4 of the G.A Nicoll and Associates report in Technical Appendix D, Mr. Nicoll's firm indicates that "a more detailed evaluation" of slope stability issues has yet to be completed and will be conducted as part of the geotechnical review of the 40-scale grading plans. This underscores the fact that only vague and general "concepts" about grading mitigation measures are referenced in DSEIR 566 even though CEQA Guidelines Section 15146 would require a much more detailed and specific discussion of grading impacts and mitigation at this construction-level stage of the project The mitigation measures listed in this section of the DSEIR are general, boilerplate statements about what information is yet to be gathered and they **do not** represent "a comprehensive remedial grading mitigation plan" The seminal question which remains unanswered is whether DSEIR 566 is intended to be used as the environmental documentation to support the issuance of one or more grading permits for the project or does the County intend to require yet another Supplemental EIR to be prepared to address the grading mitigation measures which are still being analyzed by the project soils engineer? If DSEIR 566 is intended to support the issuance of grading permits, then the construction-level plans and reports necessary for the permits to be issued must be in the EIR itself, instead of being the subject of speculation as to what will be determined at some future date

Response

Refer to response to comment SFC-1

It should be noted that following the October 22 Planning Commission meeting, detailed

grading plan information, in the form of a *Grading Library*, was made available to the public. This information, which includes the 40 scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows, was provided in an effort to respond to the high level of interest demonstrated by the public regarding the project's grading impacts.

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public. This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns After sending notifications of availability to each individual that provided comments on the Draft EIR (566), the Planning and Development Services Department received only five (5) requests for sets of the Grading Library to interested parties and individuals.

SFC.2-21

Comment

Page 4-27, Mitigation Measure 2-3. This mitigation is unnecessarily vague as to who the "decision-maker" is (the Board of Supervisors? The Planning Commission?), and it is also misleading for the public. CEQA Guidelines Section 15162 states that a subsequent EIR is necessary if "Substantial changes are proposed in the project..." (In this case any substantial change to the grading plan). If the applicant "deviates" from the recorded tract map grading to such an extent that the project has changed and a new application must be submitted per the zoning code, then a subsequent EIR will be required for public review of the changed project. In addition, as the current geotechnical mitigation measures are worded, a subsequent EIR would be required if conditions are exposed during grading which are significantly different from those described in the project description or geotechnical report. As indicated on page 16 of the Nicoll report· "In the event that during construction, conditions are exposed which are significantly different from those described in this report, they should be brought to the attention of the Soil Engineer." Preparing a Subsequent EIR for changed conditions during remedial grading would not be feasible, therefore sufficient detail must be included with the DEIR and recirculated for public review. The mitigation measure should be revised to reflect this change

Response

The decision maker, in this case, is the Orange County Grading Official Please refer to Section II of the, Corrections and Additions to the DEIR document Also refer to response to SFC-1 Grading permit authorization is an administrative determination

SFC.2-22

Comment

Page 4-27, Mitigation Measure 2-4, is not enforceable unless the Planning Commission requires that the EIR show how the graded areas will be compatible with natural land

characteristics of the adjacent open space. Future gathering of information is not proper mitigation for a significant impact

Response

Mitigation measure SC 2-4 is a standard county condition, applied to numerous projects, and is enforceable, under CEQA and California planning and zoning law .

SFC.2-23

Comment

Page 4-29, Mitigation Measure 2-16, the back cut failure guidelines should be provided now for a construction-level grading permit application EIR. This project is already approved with a recorded map Therefore, a higher level of detail is essential to demonstrate the overall feasibility of the recommended grading techniques. The criterion the project applicant has to follow is to mitigate impacts to less than significant levels and demonstrate that the mitigation measures are adequate under CEQA The DSEIR has not accomplished this yet.

Response

Refer to response to comment SFC-1

SFC.2-24

Comment

Page 4-29, Mitigation Measure 2-20 Ponding will be necessary as part of the dewatering process and within Best Management Practices for Regional Water Quality Control Board requirements. This mitigation measure should be amended to reflect actual ponding that will be necessary and the possibility of Vector Control Permits.

Response

The comment is speculative. Ponding may or may not be required depending on subsurface conditions encountered

SFC.2-25

Comment

Page 4-31, Mitigation Measure 2-34 Ironically, this so-called "mitigation measure" provides more detailed information regarding groundwater problems and dewatering than any discussion set forth in the text of DSEIR 566 Although page 4-24 of the text merely alludes to "some" ground water that might be encountered during grading, this mitigation measure paints a far more graphic and alarming picture **"Heavy seepage was encountered, as**

indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher elevations as well as in cuts made late in the year." As indicated above, groundwater wells are located adjacent to the site and landslide areas Impacts to surrounding groundwater and groundwater wells from required pumping and dewatering are not even discussed in the text of the DSEIR, yet this mitigation measure appears to expect it. Again, the DSEIR does not, but certainly should, discuss the extreme likelihood that this excessive pumping may impact groundwater wells and groundwater recharge to these surrounding wells. Impacts to groundwater and surrounding wells are considered a significant impact under CEQA. The Planning Commission must be provided with enough factual information before it is asked to certify this EIR Gathering groundwater information during remedial grading is not proper mitigation.

Response

Refer to response to comment SFC-1 and SFC 2-18.

SFC 2-26

Comment

To truly mitigate geotechnical and groundwater impacts to less than significant levels, and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendation on grading, dewatering and impacts to groundwater and groundwater wells should be included in this DSEIR prior to EIR certification This DSEIR requires a higher degree of specificity on this important issue prior to EIR certification.

Response

Refer to response to comment SFC-1

SFC 2-27

Comment

Page 4-33, Section 4.2 7 of **the DEIR should be changed to read "Implementation of this proposed project, with the mitigation measures outlined above <u>will result in unavoidable adverse geotechnical impacts.</u>"** At a minimum, there are significant groundwater impacts and slope stability issues that have not been adequately discussed or mitigated in DSEIR 566 and revision and recirculation of the DSEIR is in order to allow public comment on these matters when they are completed

Within the Technical Appendix D, page 4, Mr Nicoll's firm indicates that this geotechnical review is for an EIR level of analysis, and that subsequent analysis will be necessary.

However, the "EIR level" soils report in Appendix D does not provide the required specificity for the considerations outlined in the DSEIR, including impacts of dewatering during and following construction, slot cutting or staged excavation to assure on-going support of landslide masses to be stabilized, backcut forecut slope inclinations, and dewatering criteria. A grading plan review report should include all recommendations and geotechnical criteria necessary to undertake and complete all remedial grading improvements and measures, and it should be included as part of DSEIR 566 and circulated to the public. The Planning Commission cannot, without uncertainty, approve this project under the premise that the impacts are mitigated to less than significant levels. If planning staff chooses to amend the DSEIR to show that significant grading impacts will remain after mitigation, then the introduction of new information will trigger recirculation of the EIR per CEQA Guideline Section 15088.5(a)

Response

Please refer to response to comment SFC-1.

SFC.2-28

Comment

Section 4.3 Water/Hydrology

EIR 566 appears to utilize the hydrology map from EIR 561 without changing the underlying site plan. While the existing drainage will not change regardless of the site plan, the post development drainage will change from EIR 561 to EIR 566. DSEIR 566 does not include post development drainage circulations. The DSEIR needs to correlate existing versus post-development change in cfs and % in order for the Planning Commission to base its decision on the storm drain improvement plans that were approved in 1988 This subsequent EIR should incorporate all pertinent information and re-verify the prior calculations and not rely solely on County approvals from 1988.

Response

The comment is incorrect. Exhibit 22, Conceptual Drainage Plan, uses the proposed 705 lot manufactured housing project as the base map.

SFC.2-29

Comment

Page 4-39, Table 10 does not correspond with Exhibit 22 as far as proper labeling of the storm drains. If these are not accurate, the Planning Commission should require updated concepts to verity mitigation measures.

Response

Storm drain reference numbers that correspond to Table 10 were added to Exhibit 22, *Conceptual Drainage Plan* Refer to Section II of the Corrections and Additions to the DEIR document

SFC.2-30

Comment

Page 4-38 The EIR states that alterations of the rate of flow of groundwater or impacts to groundwater quality are considered to be insignificant. The geotechnical report indicates that groundwater and saturated zones will require dewatering during grading and excavation of the sheer key. Groundwater from these slide planes will require pumping for an undetermined period of times (as demonstrated in Mitigation Measure 2-34). At least five (5) groundwater wells are located near this project site, directly in the path of the groundwater flow. The geotechnical report has completely disregarded the impacts that may be incurred downstream during construction dewatering **This EIR section should consider impacts to groundwater as significant,** otherwise the Planning Commission should not certify this EIR with an incorrect impact finding.

Response

Impacts to groundwater quantity/quality, as a result of grading operations, will be mitigated by County Standard Condition of Approval SC 2-6 and mitigation measure AM 2-34. See response SFC 2-18

SFC.2-31

Comment

Page 4-41, Mitigation Measure 3-1 indicates that the master drainage concept is included as Appendix L However, upon closer evaluation of the site plan in Appendix L, it appears that the post development calculations are for the smaller 318 units (EIR 561) project. This EIR cannot be certified as adequate with erroneous information pertaining to a much smaller project.

Response

Information contained within Section 4 3 of the DEIR, beginning on Page 4-33 contains a comprehensive evaluation of impacts to Water/Hydrology, including the master drainage concept for the proposed project It should be noted that all information, including the appendices, from DEIR 561 have been incorporated into DEIR 566 by reference

SFC 2-32

Comment

Page 4-42, Mitigation Measure 3-5. How and why is this mitigation important to reducing hydrologic impacts to less than significant levels? What if the upstream and down stream property owners do not sign or agree to a letter of consent? Does the Manager, PDS/Subdivision and Grading Services Division override the property owner and allow consent? The mitigation measure is not enforceable and does not reduce impacts in any way It should be deleted.

Response

Mitigation measure SC 3-6 is an adopted County Standard Condition of Approval, and is applicable to the proposed project, subject to the approval of the Manager, PDS/Subdivision and Grading Services Division

SFC.2-33

Comment

Page 4-42, Mitigation Measure 3-6 indicates participation in a Master Plan of Drainage prior to issuance of any building permits Preparing a master plan of drainage after the grading has been completed does not allow the County or the public to comment on proper hydrologic calculations. As indicated in the above comment to mitigation measure 3-1, the master drainage concept included in Appendix L was prepared for the smaller 318 units (EIR 561) The master plan of drainage should be submitted with and incorporated into the DSEIR for recirculation and public review

Response

The Master Plan of Drainage referred to in SC 3-6 is an existing county master plan and not subject to negotiation by the applicant SC 3-1 through SC 3-7 outline the hydrology/drainage requirements that must be satisfied prior to the issuance of grading permits.

SFC.2-34

Comment

Page 4-42, Mitigation Measure 3-7 indicates that impacts to the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques However, the mitigation measures and analysis leading to the measures must be commensurate with the specificity required for a construction-level grading permit application EIR. There is no guarantee that implementation of this mitigation measure will result in insignificant impacts to this environmental issue Therefore **this impact should be changed**

to potentially significant after mitigation because the mitigation measure is not specific enough to conclude otherwise. The mitigation measure is too speculative for future hydrology of a site, particularly with the wrong hydrology report in the DEIR. In addition, there is no timing associated with implementation of this mitigation measure

Response

Please see response to SFC-1. Timing associated with mitigation measure SC 3-7 is prior to the issuance of any grading permit, similar to other hydrology related SC mitigation measures.

SFC.2-35

Comment

Page 4-43, Section 4 3 7 indicates that implementation of the proposed mitigation measures would result in no unavoidable adverse impacts to groundwater hydrology, yet there is no information on impacts to downstream wells from excessive dewatering to support the less than significant impact This conclusion should be changed to **potentially significant impacts will result after implementation of the mitigation measures.** In addition, the new information associated with the new finding will require recirculation of DSEIR 566

Response

The referenced statement regarding no unavoidable adverse impacts to groundwater hydrology is valid, and is supported by information contained in Sections 4 2 and 4 3 of the DEIR and DEIR 561 which has been incorporated by reference, in conjunction with standard county conditions of approval

SFC 2-36

Comment

Section 4.4 Transportation/Circulation

The traffic section of the DSEIR unfairly limits its review of intersection impacts to El Toro Road/Santa Margarita Parkway and north No explanation is given in the DSEIR for this limiting factor, and no analysis is included for the intersections along El Toro south to the San Diego Freeway (I-5) The DSEIR should include all intersections that will be impacted by 705-unit project This lack of analysis raises another unanswered question Have the traffic calculations been adjusted to account for the difference in projected use versus actual use of the Foothill Corridor? (The San Joaquin Corridor's projected usage was substantially overestimated by nearly 50%). This difference in projected use versus actual use should be incorporated into the project and regional buildout traffic calculations of the area With an over estimation of the Foothill Corridor usage, there will need to be an analysis and discussion of traffic along El Toro Road from the Foothill Corridor south to the San Diego Freeway. The intersection of El Toro at the 5-Freeway north and south is virtually impassable during

peak hours and the addition of Saddleback Meadows will only exacerbate this growing problem.

Response

The scope of the traffic and circulation impact analysis contained in DEIR 566 was based upon several meetings with County of Orange, PF&R Department, Programs Division, Traffic Engineering Section staff, in conjunction with standard accepted traffic engineering analysis practices and County of Orange adopted policies Fifteen percent of the project related average daily traffic generation is distributed southbound on El Toro Road, south of Santa Margarita Parkway, with 20 % of the project related average daily traffic generation distributed onto the northbound Foothill Transportation Corridor. The above outlined trip distribution remains valid Intersections that would experience less than a 1% impact are not considered to have "measurable impacts."

The Foothill Transportation Corridor is currently operating at projected traffic volumes and levels of service (LOS), in contrast to the underutilized San Joaquin Transportation Corridor

SFC.2-37

Comment

Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the traffic impacts from the use of the El Toro Marine Corp Air Station as a commercial airport In addition, it is not clear from the DSEIR if the regional traffic model utilized for the project impacts, and cumulative project impacts, actually incorporates the regional changes to the traffic resulting from a commercial airport at El Toro CEQA Guidelines Section 15130(b)(1)(B) provides the cumulative impact elements necessary for an adequate discussion include "A summary of projections contained in an adopted general plan or related planning document (in this case the Draft Reuse Plan EIR) which is designed to evaluate regional or areawide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency " The El Toro Reuse Plan and EIR should be included in the regional analysis and cumulative impacts, incorporated by reference, and made available for public review during the recirculation process Without such an analysis, **the DSEIR cannot conclude that this traffic issue will have less than significant impacts.**

Response

The cumulative traffic impact analysis is based on the most current modeling source available from the County of Orange· the OCTAM, Version 2 5, South County Subarea traffic model. No specific MCAS El Toro reuse cumulative traffic data is available, as a preferred alternative and the related EIR/EIS has not been prepared.

SFC 2-38

Comment

It appears as though the traffic study has distributed residential trips to the commercial area from the project internally via Valley Vista Way The traffic analysis does not take into account that Valley Vista is closed to through traffic and is to be used as an emergency access only. According to the grading plan, the only way to the commercial area will be from either El Toro Road or Valley Vista If Valley Vista is to be blocked off, all trips in the traffic study that were to use Valley Vista will now use El Toro Road. This inconsistency should be resolved

Response

Twenty percent of the commercial site trip generation was distributed internally to the project site via Valley Vista Way. Redistribution of these trip to El Toro Road will not alter the post development level of service analysis contained in the DEIR.

SFC 2-39

Comment

Review of the traffic count data shows that the information was gathered after schools in the District had been let out for summer Updated counts should be included after school has started, but before the Christmas holiday season.

Response

The timing of the baseline traffic data collection, in reference to school schedules, does not have a significant effect on the traffic impact analysis.

SFC 2-40

Comment

Page 4-52, Traffic Impact Modeling section of DSEIR 566 indicates that the proposed project of 705 units will generate 6,220 trip-ends per day with 345 vehicles per hour during the AM peak hour and 635 vehicles per hour during the PM peak hour. However, the Traffic Report in Technical Appendix E states on page 27 that "The Saddleback Meadows (TT-10692) development is projected to generate a total of approximately 8,340 trip-ends per day with 540 vehicles per hour during the AM peak hour and 825 vehicles per hour during the PM peak hour". **Why is there nearly a 25% discrepancy with respect to trip-end figures?** Even with the inclusion of passby/diverted trip reductions (as calculated on Table 4, page 29 of the Traffic Report in Appendix E), the total project trip-ends is 7,530, nearly 20% greater than what is stated in the DSEIR The traffic section of the DSEIR should be reanalyzed and recirculated for public review

Response

See response to comment CMV-3

SFC.2-41

Comment

Page 4-52, Section 4.4.2. Effects Found To Be Insignificant. This section concludes that the proposed project would not result in insufficient parking capacity onsite or offsite This is not consistent with the traffic report in Appendix E which indicates on page 10 that "Verification of adequate parking should be analyzed for the project in conjunction with approval of the site plan " The site plan for Saddleback Meadows is already approved. Lack of available parking for high density housing such as this is the number one Home Owner Association complaint and the subject of many homeowner lawsuits against the developer. The DSEIR should discuss what constitutes a significant parking impact, however, in order to do that, parking verification must be performed first In order for the traffic engineer's recommendation to be consistent with the DSEIR's finding of insignificance for this parking issue, a parking analysis for the site should be performed prior to certification.

Response

Residential and commercial parking requirements have been incorporated into the recorded tract map, and will be reviewed and verified at the site plan review stage for the commercial land use

SFC 2-42

Comment

Page 4-82, Mitigation measure 4-12 and 4-13 seem to contradict each other MM 4-12 requires the applicant to design and construct roadway improvements for El Toro Road, including deceleration lanes and entrance pockets, whereas MM 4-13 requires the applicant to provide only a cash deposit for the difference in cost of designing and constructing the roadway improvements of the project compared to the costs associated with the ultimate configuration of El Toro Road. The question that remains, therefore, is whether the project has to pay for or build its fair share of the traffic improvements to El Toro Road?

Response

The comment restates mitigation measures contained in the DEIR Mitigation Measure SC 4-12 requires the construction of specific, project related, improvements to El Toro Road, with Mitigation Measure SC 4-13 requiring a deposit for the construction of ultimate right of way facilities. This mitigation measure is adequate to ensure that the project meets its obligation towards improvements to El Toro Road

SFC 2-43

Page 4-83, Mitigation measure 4-15 states that "Verification of adequate parking shall be analyzed for the site in conjunction with approval of the site plan" This mitigation measure should be revised based on the comments from page 4-52, Section 4.4 2

None of the mitigation measures listed in the traffic section of the DSEIR provides for reasonable contributions to the regional impacts on traffic from the proposed El Toro commercial airport

Response

The comment refers to mitigation measure AM-16, not AM-15 Please refer to response to comment SFC 2-41

SFC.2-44

Comment

Section 4.5 Air Quality

Page 4-94, Mobile Source Impacts. The Air Quality section for Mobile Source Impacts has based its calculation on 5,410 daily vehicle trips, the DSEIR traffic section states a calculation of 6,222 daily trips, while the Traffic Report in Appendix E of the DSEIR states a daily trip calculation of 8,340, a total difference of 35% Therefore it would appear that the air quality calculations are underestimated Any CEQA calculations that differ by a factor of 10%, let alone 35% or more, cannot be considered similar and therefore, the Air Quality analysis should be updated with the proper information before certification by the Planning Commission

Response

The comment is correct in noting that the air quality analysis is based on 7,530 trips per day, rather than 8,340, a difference of 810 trips per day, or 11%. An increase in project related operational emissions would not change any conclusions relating to the potential significance of AQMD threshold exceedances, as outlined in Table 19 of the DEIR, on Page 4-94. Refer to section II of the Corrections and Additions to the DEIR document.

SFC.2-45

Comment

Page 4-110, It appears that the applicant has chosen to utilize the project related vehicle trips from the previous noise study prepared for 318 units (EIR 561), rather than updating EIR 566 to reflect more than double the number of units associated with the manufactured housing project This study should be updated with the proper information prior to certification of

the EIR

Response

The comment is incorrect The acoustical analysis was updated to reflect the 705 unit proposal evaluated in DEIR 566. The reference to the number of daily trips in the text on Page 4-110 of the DEIR is a typographical error. The updated acoustical analysis is contained in it's entirety in Appendix G of the DEIR

SFC.2-46

Comment

Page 4-118, Section 4 6.7 indicates that the project in conjunction with proposed mitigation measures would not result in any unavoidable adverse operational impacts However, the EIR fails to analyze the noise impacts the project would have, at buildout, on the surrounding religious organizations to the north and south of the site

Response

Refer to Page 4-113, Paragraph 5 in the DEIR for a discussion of noise impacts to adjacent land uses.

SFC.2-47

Comment

Section 4.6 Noise

Notwithstanding the requirements of CEQA Guidelines Section 15130(b)(1)(B), the DSEIR fails to provide a cumulative analysis of the noise impacts from the reuse of the El Toro Marine Corp Air Station as a commercial airport or the noise from traffic associated with the commercial airport. Once this information has been included in this DSEIR, this document should be recirculated for public review.

Page 4-102, Baseline Noise Levels The Noise section of the DSEIR provides a baseline discussion of the current impacts from the El Toro MCAS fly-overs which exist at present, but the impact section of the EIR fails to identify potential CNEL contours as a result of the base reuse plan as an active commercial airport

Response

Refer to response to comment SFC.2-37.

SFC.2-48

Comment

Page 4-103, the first paragraph discusses an area of proposed open space as the project location where the 62 dB CNEL contour falls. This may have been true for the previous EIR 561, however, page 7 of the noise study provided in Appendix G states that the 62dB CNEL location is in an area of proposed commercial development The proper location of the 62 dB CNEL should be verified prior to EIR certification.

Technical Error: page 4-103, first paragraph, last sentence· The DSEIR incorrectly uses the 62 dB CNEL as "over productive". Correct terminology from the Noise Study, page 7, first paragraph: the use of 62 dB CNEL is "overpredictive".

Response

Exhibit 48 shows the location of the existing 60 dB CNEL noise contour for MCAS El Toro The 60 dB CNEL contour effects the southwest portion of the project site which is proposed as commercial as well as natural open space land uses.

SFC 2-49

Comment

Page 4-103, third paragraph, states "Depending upon future site re-use, aircraft noise may or may not be an important issue " **The aircraft noise from a commercial airport at El Toro will be an important issue.** Nowhere else in the DSEIR is the El Toro MCAS reuse discussed or incorporated by reference No commercial aircraft noise impact analysis is provided. The DSEIR should include project related noise impacts as a result of the El Toro reuse plan as a commercial airport and traffic related impacts Once this information has been included in this DSEIR, the document should be recirculated for public review.

Response

Refer to response to comment SFC 2-37

SFC.2-50

Comment

Page 4-103, fourth paragraph indicates that individual fly-over events may be noise intrusive and mitigation has been provided However, neither the baseline discussion, impact analysis nor the mitigation measures in the DSEIR include mitigation for a multiple fly-over commercial airport

Response

Refer to response to comment SFC.2-37.

SFC.2-51

Comment

Section 4.7 Biological Resources

The Planning Commission should be aware of a note that was included on the preliminary grading plans, that indicates· "Upon issuance of the grading permit by the County, the County will inform the USFWS of the issuance of this permit and any related activity that may potentially involve a CSS "take" resulting from the associate grading activities". This note on the grading plan takes the mitigation monitoring responsibility out of the hands of the County and impermissibly transfers it to the developer and its grading contractor The note, a copy of which is attached, is an attempt to sidestep the need for coordinating the CDFG and USFWS permits prior to issuance of the grading permit

Responses

The comment restates information contained on the preliminary grading plans Mitigation measures SC 7-4 through SC 7-6 require the notification of the appropriate resource agencies of any potential impacts to coastal sage scrub, prior to the issuance of any grading permits.

SFC.2-52

Comment

No grading permit should even be considered for issuance unit after the gnatcatcher study has been completed per USFWS protocol Under the Federal Endangered Species Act, all "take" must be accommodated regardless if a recorded tract map is involved This is a grading permit level of detail EIR, and thus, the studies included should reflect CEQA Guidelines Section: 15146. "the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR " (i.e. grading plan permit). Section 15146 (a) states "An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy" If USFWS decides that project modifications or on-site mitigation is required, then the final tract map will have to be changed any way.

Response

Refer to response to comment SFC-1 and USFWS-3

SFC 2-53

Comment

Between the time when EIR 561 and EIR 566 were both prepared, there seems to have been a change in the vegetation communities on the site, or the biology reports are inconsistent between last year's EIR and this year's EIR. Both EIR 561 and 566 are based on the same site and the same biological study, yet the numbers of plant species have changed without new field work. The only updated biological fieldwork was done April 1996 for the western spadefoot toad The following discrepancies between the two biological reports prepared for this EIR need to be rectified EIR 561 indicated 119 plant species where EIR 566 indicated 110; what were the previous other 9 plant species and where are they now?; were any of these 9 disappearing plant species sensitive? EIR 561 indicates 70 native plant species on site, yet EIR 566 indicates 73 native plant species Were three more native plant species planted in a year or is EIR 566 incorrect? EIR 561 originally indicated 49 non-native species and now EIR 566 indicates only 39 non-native species Without new fieldwork having been conducted by the consultant, which biology report is correct? Both Figure 5 in EIR 566 technical appendix and Figure 3 in EIR 561 technical appendix show the same vegetation, yet the vegetation quantities have changed

Response

New biological resource field work was completed for DEIR 566 for the offsite areas impacted by project implementation, that were not previously impacted by the project evaluated in DEIR 561 DEIR 566 includes an analysis of 19.77 acres of offsite impact area as compared to 7.86 acres of offsite impact area evaluated in DEIR 561 These differing sizes and locations of offsite impact areas have resulted in the changes that have been noted in plant community acreage and numbers of individual species.

SFC 2-54

Comment

Page 4-126, Amphibians This section states that "No amphibians were observed during surveys of the site", yet Exhibit No 50 on page 4-122 lists the Western Spadefoot Toad as present This discrepancy should be corrected.

Response

Comment was noted Refer to Section II, Corrections and Additions to DEIR

SFC.2-55

Comment

Page 4-125, Ephemeral Ponds The section states that "All of the ephemeral ponds were

artificially created a number of years ago.. " Given the geological conditions of frequent landslides in the area, these wetlands could have been "slump" or "slope" ponds that underwent human modification at a later time. Further information is needed in the DSEIR regarding the origin of these wetlands.

Response

Refer to response to comment USFWS-11.

SFC 2-56

Comment

Page 4-148 of EIR 566, Coastal California Gnatcatcher, indicates that no gnatcatcher survey has been performed with USFWS protocol. Specific surveys for presence or absence must be performed at this level of detail for this construction stage in the project. Combined with the disturbing note on the grading plans, the County will lose the ability to monitor any mitigation for the CCG. In order for this EIR to be deemed adequate under CEQA Guidelines Section 15126 (c), the focused CCG survey must be performed prior to certification of this EIR

Response

Refer to response to comment USFWS-16 and Section II of the Corrections and Additions document.

SFC.2-57

Comment

Page 4-148, Raptor Foraging Habitat Whatever consultant recommended to the developer that project slopes would constitute sufficient raptor foraging habitat did not determine this through any consultation with either CDFG or the USFWS Consultation on appropriate impact significance should be reflected in this DSEIR prior to certification.

Response

The USFWS and CDFG were consulted with during the NOP comment period and have provided comments on the DEIR The referenced statement on Page 4-148 of the DEIR does not indicate that "project slopes would constitute sufficient raptor foraging habitat " Rather, the statement indicates that onsite and surrounding open space would continue to function as raptor foraging habitats.

SFC 2-58

Comment

Page 4-151, Section 4 7.6, commences its discussion on mitigation measures by stating as a "given" that there is supposedly no ability on the part of the County to "deviate from the final recorded tract map." However, no legal or factual support is given for this statement, and it appears to be directly at odds with CEQA Guidelines Section 15041 which provides that the "lead agency for a project has the authority to require changes in any or all activities involved in the project in order to lessen or avoid significant effects on the environment." If this statement, which appears to be an excuse for not doing a complete mitigation analysis, is based on some unstated legal assumptions about the rights of the developer, then this analysis should be explained in detail in DSEIR 566 to let the public know why CEQA is not being complied with fully.

Response

Refer to Section 2.8 on Page 2-10 of DEIR 566

SFC.2-59

Comment

Page 4-153, Mitigation Measures SC 7-1 though 7-7 and measures 7-11 though 7-14 would appear to be of no value in light of the note placed on the preliminary grading plans. In addition, although EIR 561 provided the mitigation plans as a component of the EIR, DSEIR 566 only provides mitigation in the form of conditions to prepare mitigation plans in the future. The level of detail of the mitigation measures should be commensurate with the level of detail in a recorded tract map. Therefore this EIR does not adequately satisfy CEQA Guidelines Section 15126 (c) requirements at this time Gathering further information and complying with resources agencies in the future is not proper mitigation. Biological mitigation of ACOE and CDFG coordination may change the development plan, which would then require a revised EIR.

Response

Refer to response to comment SFC-1

SFC.2-60

Comment

Page 4-153, Mitigation Measure 7-2 states that a 1603 application has been submitted to CDFG What is the status of the application? Has CDFG acknowledged receipt of the application? Was the application deemed complete by CDFG? What additional information did CDFG ask for? This future mitigation would hold more credence as a CEQA mitigation

measure if more detail were known about the 1603 permit for this project. CDFG has a very limited staff and processing of the permit may take upwards of nine months to a year or more to complete. Is the County going to wait a year for the 1603 permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow the site to be radically altered prior to the issuance of the 1603 permit?

Response

A 1603 Streambed Alteration Agreement application has been submitted to the California Department of Fish and Game, and is being held in abeyance until final action is taken on the proposed project and a CEQA document is certified. Mitigation measure SC 7-2 requires the applicant to obtain a 1603 Streambed Alteration Agreement prior to the issuance of any grading permit

SFC.2-61

Comment

Page 4-153, Mitigation Measure 7-3 states that the applicant will obtain the necessary individual or nationwide permit. According to Page 4-146, second paragraph, the biological consultant states that an individual permit will be necessary The mitigation measure should accurately state the proper permit necessary. As with the 1603 permit, has the applicant submitted an application for a 404 permit? Has the ACOE acknowledged receipt of the application? Was the application deemed complete by the ACOE? What additional information did the ACOE ask for? The ACOE has even fewer staff than the CDFG, and processing of the permit may take more than a year to complete Is the County going to wait a year for the 404 permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow the site to be permanently stripped of sensitive biological resources prior to the 404 permit being issued?

Response

The applicant has not submitted an application for a Section 404 permit. The Army Corps of Engineers determines the appropriate type of 404 permit required based on the types and intensity of impacts to waters of the United States and adjacent wetlands. Mitigation measure SC 7-3 requires the applicant to obtain the appropriate type of 404 permit prior to the issuance of any grading permits

SFC 2-62

Comments

Page 4-153, Mitigation Measure 7-4 states that the applicant is to provide a summary in acres of coastal sage scrub to be impacted, but this has already been stated in Table 30 of the DSEIR. The mitigation measure only serves to lead the reader back to the beginning of the impacts section of the DSEIR. The mitigation measure should be specific and consistent with

the biological consultants recommendation of "The dedication and long-term preservation of 22.9 acres of habitat of Saddleback Meadows, revegetation of 46.5 acres of Veturan-Diegan transitional coastal sage scrub on site and contribution of the Orange County NCCP".

Response

Mitigation measure SC 7-4 is a County Standard Condition requiring the applicant to provide an accounting of impacts to coastal sage scrub to the County.

SFC.2-63

Comment

Page 4-153, Mitigation Measure 7-5 states that the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the USFWS. This mitigation measure is misleading because it fails to state what permit is needed. USFWS may impose additional mitigation measures as part of its review process In order to assure that USFWS mitigations do not conflict with any other measures in the DSEIR, the consultation with USFWS should be conducted prior to certification of the DSEIR. As with the 1603 and 404 permit, has the applicant submitted a request for USFWS consultation or filed an application? Has the USFWS acknowledged receipt of the application? Was the application deemed complete by the USFWS? What additional information did USFWS ask for? The USFWS has the fewest staff of all three agencies, and processing of the permit and consultation may take more than a year to complete. Is the County going to wait a year for the Section 10 a permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow clearing and grubbing of the site prior to the 10 a permit?

Response

Mitigation measure SC 7-5 is a standard County condition, and requires the applicant to obtain approval for impacts to coastal sage scrub, prior to the issuance of any grading permits The applicant has not filed a request with the USFWS to initiate the process

SFC.2-64

Comment

Page 4-154, Mitigation Measure 7-6 could in effect override mitigation measure 7-5, if the Administrator, Planning and Zoning so desired This mitigation measure should be deleted

Response

Mitigation measure SC 7-6 adds an additional level of protection for the County of Orange to regulate project impacts to coastal sage scrub in relationship to the County's NCCP responsibilities

SFC.2-65

Comment

Page 4-154, Mitigation Measure 7-7. If there are additional permits required by the USFWS, the DSEIR should list those specific permits. Consultation with the USFWS, as indicated on page 4-151 last paragraph of the DSEIR, states that input has been received from the USFWS. Why didn't the EIR preparer ask what additional permits may be necessary for native vegetation?

Response

Mitigation measure SC 7-7 is a standard County condition, and is designed to ensure that proposed grading activities will be in compliance with the provisions of the Endangered Species Act, and in this case, the NCCP program .

SFC.2-66

Comment

Page 4-155, Mitigation Measure 7-8, F, states that an experienced nursery or other landscape contractor shall care for the transplanted trees for only six (6) months. The biological report states on page 49, second paragraph, "In order to ensure the success of mitigation, the Project proponent should enter into a five year secured agreement with the County of Orange to cover the Projected cost to install, monitor, and report on the mitigation Project. This agreement will be in the form of a 100 percent bond " This extremely important mitigation measure is found nowhere in the DSEIR IF the DSEIR does not reflect the recommendations of the expert biologist, then mitigation measure 7-8F is ineffective and invalid. The DSEIR cannot be certified without amending this measure to reflect the biologist's recommendation.

Response

The provision for five years of biological resource mitigation monitoring was incorporated into the DEIR Refer to Corrections and Additions to the DEIR document

SFC 2-67

Comment

Page 4-157, Mitigation Measure 7-11 states that the applicant shall provide additional evidence that onsite CSS habitat is not occupied by California gnatcatchers The survey for the CCG should be performed now to rule out any occupied habitat. What the mitigation measure is trying to say is that if CCG is found on site, the applicant will be required to file an application for a Federal Section 10(a)(1)(b) permit. If CCG is found, the USFWS will commences their consultation and additional mitigation measure may be imposed by the

USFWS. In order to assure that USFWS mitigations do not conflict with any other measures in the DSEIR, the CCG survey should be performed prior to certification of the DSEIR. The mitigation measure should accurately state the proper permit necessary As with the 1603 and 404 permit, has the applicant submitted a request for USFWS consultation or filed an application for a Section 10 a permit? Has the USFWS acknowledged receipt of the application? Was the application deemed complete by the USFWS? What additional information did USFWS ask for? The processing of the permit and consultation may take more than a year to complete. Is the County going to wait a year for the Section 10 a permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow clearing and grubbing of the site prior to the 10 a permit?

Response

Please refer to response to comment USFWS-26.

A biological resource mitigation program will be prepared and submitted for review to both the California Department of Fish and Game and the U S. Fish and Wildlife Service, prior to the issuance of grading permits The biological resource mitigation program will focus on eliminating or minimizing adverse impacts to biological resources through one or more of the following options: 1) Resource avoidance/preservation, 2) minimization of resource impact, 3) onsite habitat restoration, 4) onsite habitat relocation, 5) offsite habitat restoration and/or 6) impact fee programs/mitigation bank participation

SFC.2-68

Comment

Page 4-158, Mitigation Measure 7-12, is not enforceable as a mitigation measure. The mitigation for the wildlife movement corridor should be included as part of the DSEIR for public review The mitigation measure should list the onsite or off site options for the movement corridor. This measure should be deleted, and an alternative mitigation measure should be provided.

Response

Mitigation Measure SC 7-12 requires the mitigation of project effects on local and regional wildlife movement, prior to the issuance of any grading permit

SFC.2-69

Comment

Page 4-158, Mitigation Measure 7-14 This measure in not enforceable as a mitigation measure The relocation and establishment of a mitigation plan should be included as part of this DSEIR as it was with EIR 561

Response

The comment restates information contained in DEIR 566.

SFC 2-70

Comment

Page 4-158, Mitigation Measure 7-15 This measure is not enforceable not does it further minimize impacts with wording such as "**Where possible**. ." "Lighting within development projects adjacent to conserved habitat "**should**" be selectively placed...",. ."lighting from homes abutting conserved habitat "**should**" be screened ..",and, "These lighting restrictions "**should**" be incorporated into the project's CC&Rs." All of these "should" mitigation will become "shall" upon certification If the Planning Commission is not sure that it wants to implement these measures, they should either delete them or change all "shoulds" to "**shalls**"

Response

The reference to *should* in mitigation measure SC 7-15 was changed to *shall.* Refer to Section II of the Corrections and Additions to the DEIR document

SFC 2-71

Comment

Page 4-159, Section 4.7.7 Unavoidable adverse impacts. Under CEQA Guidelines Section 15126(c) all mitigation must be enforced that will "minimize the significant effects" prior to EIR certification The comment that the County will issue a letter of insignificance once the Interim Loss Habitat Mitigation Plan is approved has no meaning in terms of CEQA The public has a right to review the ILHMP prior to EIR certification Also, the second bullet item under this same section discusses future mitigation A future survey is not mitigation according to the Federal EPA This is a recorded tract map and a construction level grading permit application EIR. The biological report in the EIR should be the basis of any biological opinion.

Response

Section 15126(c) of the CEQA guidelines does not contain any provisions for *enforcement prior to EIR certification.* The *Interim Habitat Loss Habitat Mitigation Plan*, is required as a condition of participation in the NCCP program The NCCP contains provisions for interim loss of coastal sage scrub habitat while the NCCP is being prepared, prior to adoption

SFC 2-72

Comment

Section 4.8 Aesthetics

Page 4-174. Although aesthetic impacts will remain significant, even after mitigation, the Project Design Feature mitigation measures 8-1 through 8-4 are only standard conditions of approval for any development project Mitigation measure 8-1 requires public utilities to be undergrounded, but the County would require this "Design Feature" anyway. Mitigation measures 8-2 and 8-3 would only truly be design features if the applicant were required to underground all drainage swales. This is more costly, but in order for these aesthetic mitigation measures to be compatible with the biological mitigation of the manufactured slopes providing rapture foraging habitat, the cost would be justified by both mitigations that would be accomplished.

Response

The comment restates information contained in the DEIR No response required.

SFC.2-73

Comment

Page 4-174, Mitigation Measure 8-4 in not enforceable as a Project Design Feature If the Trabuco Canyon Water District owns the tank site, the District will be responsible for the landscape screening, not the developer or the County This mitigation measure should include additional monetary compensation to the Water District for additional landscape screening

Response

The comment is correct. Refer to Corrections and Additions to the DEIR.

FC.2-74

Comment

Section 4.9 Cultural/Scientific Resources

Page 4-178 The DSEIR makes no attempt to analyze either the direct or indirect environmental impacts of the project on the religious or sacred uses within the potential impact area. In this case, the potential impact area extends outside of the property boundary. This important issue should be discussed in the DSEIR prior to certification.

Response

The comment is incorrect. Please refer to Sections 4.1, 4.2, 4 3, 4.6 and 4.8 of the DEIR for a discussion of project related impacts to adjacent land uses

SFC.2-75

Comment

Page 4-216, Section 4 122, Effects Found to be Insignificant The EIR preparer should look at this section again. The EIR incorrectly reads, "The Initial Study prepared for the proposed project did not identify any (sheriff, fire, education, and library) related effects as insignificant" Therefore, all the effects were significant.

Response

The comment is incorrect. The DEIR text is correct in noting that the Initial Study did not identify any effects as insignificant, and as such, are evaluated in the DEIR

SFC 2-76

Comment

Page 4-217, Section 4 123, Fire The 1 4 million-gallon tank was the same quantity tank utilized in EIR 561 for 318 homes. The EIR should reflect the proper fire flow amount for 705 units and the proper tank size or number New impacts to the tank site will require recirculation of the EIR prior to certification.

Response

Refer to response to comment SFC.2-13.

SFC 2-77

Comment

Page 4-222, Mitigation Measure 12-4, should be corrected to reflect the proper tank size

Response

Refer to response to comment SFC.2-76

SFC.2-78

Comment

Section 4.13 Utilities and Service Systems

page 4-235, Water While the project description indicates the need for a 1.4 million-gallon tank, the Draft EIR Section 4.13.6, does not mention the need to fire flow storage for a 1.4 million-gallon tank With the consistency between the two EIRs, this EIR is not certifiable under CEQA unless the information presented to the Planning Commission is accurate, factual and current.

Response

Refer to response to comment SFC 2-13.

SFC 2-79

Comment

The EIR has failed to identify an alternative location for this project, and is therefore inconsistent with CEQA DSEIR 566, without a discussion of an alternative location cannot be certified as adequate. Should the Final EIR for 566 choose to include an alternative location analysis, the EIR should be recirculated with the new information for public review. Section 15126 (B) 2 states that "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR". However disclosure, at this time, of a new location would constitute new information and require recirculation of the DEIR.

Response

Refer to response to comment RAT-16.

3.21 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN, LLP., Edmond M. Connor, August 22, 1997

CCBG.3-1

Comment —

As you know, our firm represents the Vedanta Society of Southern California (the "Society") which, for over five decades, has owned and maintained the Ramakrishna Monastery (the "Monastery") in an area of Trabuco Canyon which is immediately adjacent to the southeastern portion of the Saddleback Meadows property (the "Property"). On behalf of the Society, and pursuant to the 10-day extension of time granted in the August 12 letter which I received from Tom Mathews, Director of the Orange County Planning & Development Services department (the "Department"), we are submitting written comments on Draft Subsequent Environmental Impact Report No 56 (DSEIR 566" or the DSEIR").

A **Regrettably, The Society Is compelled To Submit Its Comments Under Protest.**

The Society must note for the record that it is submitting its comments under protest because of the Department's refusal to accommodate the Society's request, as set forth in my letters of August 6 and 8, 1997, that the Society, and all members of the public be provided with adequate time to comment on DSEIR 566 *after* the grading plans and the grading plan review which are the subject of Grading Application GA960048 (the "Grading Application") have been made a part of DSEIR 566 and the DSEIR has been recirculated for public comment Because of the Department's decision to deprive the public of access to the very documents upon which the Grading Application is based, i e., the 40-scale grading plans and the detailed review of those plans by the soils engineer of record, the geotechnical consultants engaged by the Society to comment on DSEIR 566 have been thwarted in their efforts to fully and properly assess the adverse environmental impacts and feasible mitigation measures associated with the rough grading operations for the construction of the 705 units of manufactured housing which were supposedly authorized by Final Tract map 10692 (the "Tract Map").

Without being allowed access to the basic documents that will, in fact, "accompany" the Grading Application, it is hardly fair that the Society, or any other members of the public, be required to submit comments on the adequacy of the environmental documentation prepared to evaluate the effects of the Grading Application. However, the Society will endeavor to do so without waiving its objections to the inherent unfairness of the CEQA review process that is currently being conducted by the Department. The Society urges the Department to reconsider its decision to push ahead with the review of DSEIR 566 without allowing the public to see documents which are crucial to the approval of the Grading Application. Indeed, the Society believes that the fairness and disclosure problems which presently exist can easily be corrected by simply recirculating DSEIR 566 after all of the grading plans and the grading plan review have been made a part of the DSEIR or, at the very least, have been incorporated by reference in the DSEIR and have been made available for public to see documents which are crucial to the approval of the Grading Application. Indeed, the Society believes that the fairness and disclosure problems which presently exist can easily be corrected

by simply recirculating DSEIR 566 after all of the grading plans and the grading plan review have been made a part of the DSEIR or, at the very least, have been incorporated by reference in the DSEIR and have been made available for public review

Of course, the Society also believes that, if the Department persists in its refusal to make important project documents available to the public, a court of law would certainly find that the Department's actions in this regard were exceedingly unfair and not at all in keeping with either the letter or the spirit of CEQA

Response

Record evidence reveals the County afforded the public timely access to all documents relating to the project prior to FSEIR 566 certification and recirculation was not required. The County circulated DSEIR 566 and related appendices for public review for a minimum of 45 days in compliance with CEQA Guidelines public review requirements The County granted additional time, above and beyond the forty-five (45) day public review period, to the law firm of Connor, Culver, Blake & Griffin, LLP to submit comments on DSEIR 566 In addition, detailed grading plan information supplied by the Applicant for public review following the October 22, 1997 Commission meeting, was included in FSEIR 566 after it was originally circulated in June, 1997. Also, reduced copies of the grading plans were included in DSEIR 566 in Exhibits 16 and 19, as well as in the Geotechnical Appendix to FSEIR 566.

California Quartet concurs in and adopts the response of the County on this issue contained in its Appeal Issues and Response Document at pages 7-8 of Attachment B of the Department Staff Report for the January 27, 1998 public hearing on the appeal of the certification of FSEIR 566:

> In complying with CEQA's public notification requirements, the Planning & Development Services Department followed its customary procedure in adequately addressing controversial projects by exceeding those requirements. For example, adjacent landowners with considerable interest in the status of the Saddleback Meadows project were mailed complete sets of environmental documentation including the EIR and supporting technical appendices Additionally, a Notice of Availability was sent to all federal, state, and local agencies and districts, community residents, and interest groups who had expressed an interest in the project Draft Subsequent EIR 566 and related appendices were circulated for public review for a minimum of 45 days, in compliance with public review requirements outlined in the CEQA Guidelines
>
> Finally, additional time, above and beyond the 45-day public review period, was granted to members of the public, including the appellant, who requested a time extension in order to submit comments

[Also] [d]etailed grading plan information in the form of a "Grading Library" was made available to the public following the October 22, 1997 Planning Commission meeting This information, which included 40-scale grading plans of the project site as well as updated geotechnical reports, was provided in an effort to respond to the intense interest demonstrated by the public regarding the project's grading impacts. The level of detail contained in the Grading Library was in excess of what is normally required at the EIR level of planning.

Although the County has never required the submittal of such detail at the EIR review level, the Planning Commission requested that the information be made available to the public in order to heighten the awareness and relieve some of the concern expressed by the community regarding this issue The Planning & Development Services Department created 5 complete grading libraries and sent notifications to each commentor on Proposed Final SEIR 566.

The Grading Library information was provided as a special courtesy to the public. It was not provided in an effort to comply with a specific requirement of State CEQA Statutes, the Guidelines or County of Orange procedures. Therefore, the Planning & Development Services Department, in consultation with County Counsel, determined that recirculation of the EIR was neither required nor warranted.

CCBG.3-2

Comment

B. <u>DSEIR 566 Fails To Comply With The Specificity Requirements Of CEQA Guidelines Section 15146.</u>

The Society will give credit where credit is due and will commend the Department for determining that a Subsequent EIR under CEQA Guidelines section 15162 would have to be prepared and certified before the Grading Application submitted by the Applicant in December 1996 could be approved.

In requiring the preparation of a Subsequent EIR, the Department was not only complying with the dictates of the Foothill/Trabuco Specific Plan (*see*, FTSP, p. III-20, § III D 3 2c), but it was also adhering to the legal analysis set forth in the landmark case of *Day v. City of Glendale* (1995) 51 Cal App.3d 817. In *Day*, the Court of Appeal held that a grading permit application is a "project of mixed ministerial-discretionary character [which] should be treated as a discretionary project" for purposes of CEQA review, especially in cases in ;which the applicable grading code affords staff a great deal of discretion in issuing, or conditioning the issuance of, a grading permit (51 Cal App.3d at pp 823-824)

However, having correctly determined that a Subsequent EIR should be prepared, the Department must now ensure that the environmental documentation prepared by the Applicant's consultant fully complies with the requirements of CEQA and the State CEQA Guidelines which govern the preparation and review of a construction level EIR. Unfortunately, in its present form, DSEIR 566 does not comply with these requirements because it postpones for *future* analysis the specific details of the very activity which it was supposedly prepared to address, i.e., the rough grading of the Project

There can be no doubt that DSEIR 566 was supposed to analyze the impacts and mitigation measures relating to the Grading Application. As stated on page 2-8 of DSEIR 566, the Department determined, on December 16, 1996, that "a Subsequent EIR is required to evaluate the effects of the *grading application.*" (Emphasis added) In addition to what is stated in the DSEIR, Mr Mathews also confirmed in his August 12 letter to me that the Applicant's grading permit application was "the *initiating activity* which resulted in the determination that Draft EIR 566 be prepared " (Emphasis added.)

Since it is clear, therefore, that the Grading Application was the project approval which *initiated* and *necessitated* the preparation of DSEIR 566 it is only logical that the DSEIR analyze the impacts of the rough grading operations not in mere general and conceptual terms but in the *specific* and *detailed* terms that CEQA requires CEQA Guidelines section 15146 is very explicit on this point and requires far more specificity than is evidenced in DSEIR 566 As stated in section 15146, [a]n EIR on a construction project will necessarily be *more detailed* in the *specific effects* of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the *effects of construction* can be predicted with greater accuracy " (Emphasis added *)*

Response

The Commission proceeded in a manner required by law by certifying FSEIR 566 consistent with a specially adopted CEQA review process FSEIR 566 complies with the specificity requirements of CEQA Guidelines section 15146 even though specific details of rough grading for the project are not as comprehensive as requested by appellant

The Commission certified FSEIR 566 after the Board ratified new procedures during a November 25, 1997 meeting The five (5) [sic] step process outlines specific requirements for review, certification and appeal of FSEIR 566, due to the unique nature of the grading permit application and related subsequent EIR County policy provides that grading permits are ministerial actions exempt from the requirements of CEQA and do not require a public hearing. Consequently, these permits are administratively issued by the County grading official.

For the Saddleback Meadows Project, County has indicated that many factors contributed to its decision to prepare FSEIR 566 to evaluate the environmental effects of the submittal of a grading application for 705 lots legally created by recorded tract map 10692 in 1988 These factors, based on CEQA Guidelines section 15162, include: 1) a draft EIR (DEIR 561) had been prepared for a 318 dwelling unit project proposal but was not certified by the Board

following a public hearing; 2) substantial changes had occurred in the environment and related policies and programs since Tract Map 10692 was recorded in 1988, 3) important new information became available since the certification of EIRs 059 and 203 (establishment of the Natural Communities Conservation Program ("NCCP"), and the discovery of Riverside fairy shrimp and coastal sage scrub on the project site); and, 4) the controversial nature of the proposed 705 lot project requires full public disclosure and maximum opportunity for public comment.

These, among other reasons, led to County's consideration of the whole of the project (implementation of recorded tract 10692) in their decision to prepare FSEIR 566. Grading, although an important component of the proposed project with the potential for severe environmental impacts, was just one of thirteen (13) environmental factors the County has indicated was evaluated in FSEIR 566 Grading Application (GA) 960048 was merely the triggering mechanism for the environmental review process. The County did not separate the certification of FSEIR 566 from the approval of the grading application, as appellant suggests. Rather, all decisions relating to the grading application will rely on information contained in FSEIR 566

Thus, DSEIR was not expressly prepared in a vacuum, as appellant suggests, to solely evaluate the impacts of the rough grading operations on the environment. Rather, the Grading Application and its impacts constituted only one out of thirteen factors considered in DSEIR 566. California Quartet concurs with County's response on this issue, which explains why the grading plans and geotechnical review of those plans did not need to be made a part of, or be incorporated by reference into, DSEIR 566 CEQA Guidelines section 15146 neither required the specific details of the rough grading activities for the construction of the 705 unit Project to be analyzed in DSEIR 566, nor the incorporation by reference into DSEIR 566 of the grading plans and the geotechnical review of those grading plans.

Although the grading permit application was the initiating action which resulted in the determination that EIR 566 be prepared, grading is only one of the issues being evaluated in the CEQA document EIR 566 evaluated the whole of the action, which is the development of 705 unit manufactured housing subdivision and a small commercial site on the project site

CCBG 3-3

Comment

CEQA Guidelines section 15146 further provides that the degree of specificity required in an EIR must correspond to "the degree of specificity involved in the underlying activity which is described in the EIR " What this means with reference to DSEIR 566 is that, since the DSEIR was expressly prepared to evaluate the effects of the Grading Application, the *specific details* of the rough grading activities for the construction of the 705-unit Project must be analyzed in DSEIR 566. In order to do that, of course, the documents which County staff will necessarily review and comment on *before* approving the Grading Application – which will include, at a minimum, the grading plans and the geotechnical review of those grading plans– must be made a part of or at least incorporated by reference into, the DSEIR so that

all the detailed information that is available to the County is likewise made available to the public though the CEQA review process

Response

California Quartet concurs in and adopts the County's response on this issue contained in the Response to Comments document for FSEIR 566, at page III - 139 incorporating by reference page III-7.

> Sufficient detailed grading and related geotechnical information is available in DSEIR 566, including information incorporated by reference from DEIR 561, prepared for the previous 318 unit proposal, in Section 4 2 of the DSEIR, beginning on page 4-33. The information is based upon extensive geotechnical investigations conducted for the project site, which are contained in the Appendices for DSEIR 566 and DEIR 561
>
> The geotechnical information contained in DSEIR 566 meets standard practices of the County of Orange, which requires sufficient grading information for a planning decision The planning level of detail includes the location of landslides, faults and other geotechnical hazards, the types of soil, and proposed grading concepts, including post grading topography, being proposed.
>
> Standard 40 scale grading plans and accompanying more detailed geotechnical review documents and detailed hydrology reports will be reviewed and approved by the Subdivision and Grading Services Division, in consultation with various other divisions of the County including Environmental and Project Planning Services Division, prior to issuance of a grading permit. If significant new impacts, not previously addressed are discovered at that time, a new CEQA document will be required.

CCBG 3-4

Comment

C. **DSEIR 566 Fails To comply With The Technical Detail Requirements of CEQA Guidelines Section 15147.**

In the letter which I sent to you on August 8, 1997, a copy of which is attached as Exhibit "A" hereto and is incorporated herein, the point was made that both California case law and the provisions of CEQA Guidelines section 15147 make it abundantly clear that all technical data, maps, plans, diagrams, etc , which are necessary to make a "full assessment" of the environmental impacts of the project being evaluated must be contained in the EIR or in the Appendices thereto In this case, therefore, since DSEIR 566 was expressly prepared to evaluate the environmental effects o the Grading Application , the 40-scale grading plans and

the geotechnical review of those plans should have been made part of the DSEIR *before* it was circulated for public comment.

In his August 12 letter to me, Mr. Mathews disagreed with the above-stated position and stated that "[sufficient detailed grading and geotechnical information is available in the Draft EIR." This is simply not the case Indeed, without the grading plans and the geotechnical grading plan review which G.A Nicoll indicates will "accompany the Grading Application, the information regarding grading impacts and mitigation measures in DSEIR 566 is entirely inadequate. The only grading plan set forth in the DSEIR is a conceptual grading plan which has been photocopied and reduced to such a level that it is completely unreadable. Although the DSEIR makes reference to soils reports that were prepared in connection with DEIR 561, these reports were prepared in connection with a *different* project and do *not* address the same rough grading operations involved in constructing the 705 units of manufactured housing which are the subject of the Grading Application.

The *only* soils report referenced in DSEIR 566 which addressed the 705-unit Project is the one found in Appendix D to the DSEIR However, that report makes no bones about the fact that it was only "prepared at an EIR level" (whatever that means). In fact, the Geotechnical Environmental Impact Report prepared by G A. Nicoll & Associates, dated March 14, 1997, expressly states that a "*more detailed evaluation* of the slope stability, including analysis of buttress backcuts and forecuts, individual cut slope buttreses, etc., will be conducted during the 40-scale grading plan review to accompany the grading permit application" (Appendix D, p 4, ¶ 4, emphasis added.)

The March 1997 report prepared by Nicoll & Associates also states at page 16 that "*[c]omplete details* of the corrective grading will be illustrated in the final geotechnical report of the site, which will be submitted *for grading plan permitting* purposes." This is obviously a concession by the soils engineer of record for the Project that more detailed geotechnical analysis must be performed before the county will be in a position to approve the Grading Application and issue a grading permit to the Applicant. The question which naturally arises, therefore, is *why* is DSEIR 566 being processed for certification *before* this more detailed information has been made available to the County?

The above question must be answered by the Department and cannot be dismissed as a mere hypertechnical inquiry relevant only to lawyers and judges Indeed, the question goes to the very heart of the problem facing anyone who tries to determine -- *without* the benefit of the 40-scale grading plans for the entire Project and the geotechnical review of those plans – how extensive, how costly, and how time-consuming the grading operations for the Project will be.

Response

Refer to response to comment SFC-1

CCBG.3-5

Comment

D. Important Details Regarding The Nature And Extent Of The Proposed Grading Must Be Provided In Order To Determine The Cost And Duration Of The Grading And To Ascertain whether The Affordable Housing Condition Imposed On The Project Is Still Achievable

Without knowing certain basic details regarding the nature and extent of the millions and millions of cubic yards of corrective or "remedial" grading that will need to be undertaken in construction the Project -- such as, for example, the estimated depth of the removals (possibly up to 120' deep in places!), the limits of the backcut that may be left open at any one time without increasing the risk of slope failure beyond the 10% estimated failure rate, the recommended procedures for controlling groundwater encountered during excavation, etc. -- it is *not* possible to develop a reliable estimate of the cost or duration of the grading activities to be performed at the Project site

According to section 4 2 of DSEIR 566, all of the rough grading at the Project is to be "completed in one *continuous* phase " (DSEIR, at p. 4-22, emphasis added.) Assuming this is true, [2] then all of the persons living in close proximity to the Property, including the monks at the Monastery, the priests and students at St Michael's Abbey, and the residents of the Hidden Ridge and Portola Hills developments, would be keenly interested in knowing how many months or years they could expect to be subjected to the noise, dust, diesel smells, and bare-dirt conditions which would be caused by the veritable army of large earth-moving equipment (e g., scrapers, dozers, blades, compactors, trucks, etc.) that would have to be deployed at the Project site.

However, without being allowed access to the 40-scale grading plans for the entire Project and the grading plan review containing all of the soils engineer's specifications and recommendations for undertaking the proposed 8 9 million cubic yards of remedial grading work, including the construction of buttresses, shear keys, stabilization fills, and subdrain systems, no grading contractor in Orange county could even begin to estimate the amount of labor, material, and equipment that would be required to rough grade the Project in one continuous phase In fact, to even project an average daily production rate for the remedial grading operating without knowing the soils engineer's recommendations contained in the grading pan review would be nothing short of wild speculation.

Response

The DEIR contains a discussion of project related grading activities, including the phasing and

[2] After being compelled to make separate arrangements with the applicant to pay for copies of the 40-scale grading plans relating to the Grading Application, the society was surprised to learn that the plans made available by the Applicant cover only a portion of the Project referred to as "Phase I." This would clearly seem to suggest that the statements in DSEIR 566 that all grading will be completed in one continuous phase is not true

duration of grading, in Section 3 4 on Page 3-16.

It should be noted that following the October 22 Planning Commission meeting, detailed grading plan information, in the form of a *Grading Library*, was made available to the public. This information, which includes the 40 scale grading plans and eight individual geotechnical analysis documents for Saddleback Meadows, was provided in an effort to respond to the high level of interest demonstrated by the public regarding the project's grading impacts.

Although the County has never required the submittal of such detail at the EIR review level of a project, the Planning Commission requested that the information be made available to the public. This information was provided to make available all grading related information to the public, and to relieve some of the expressed concerns. The Planning and Development Services Department has multiple copies of the Grading Library on file and has sent notifications of availability to each individual that provided comments on the Draft EIR (566)

CCBG 3-6

Comment

Interestingly, without providing any explanation or breakdown of any kind, the applicant's consultant has projected an average daily production rate of 30,000 cubic yards per day for the "total project-related grading," amounting to 11.5 million cubic yards. (DSEIR, at p 4-23) Based on this projected rate, it has been estimated in DSEIR 566 that all of the rough grading at the Project "would require approximately 18 months to complete." (Id.) To say the least, this estimate strains credulity, and raises serious questions about whether the duration of the Project grading has been purposely understated in the DSEIR

Since almost 80% of the grading (8 9) out of a total of 11.5 million cubic yards) will consist of slow, costly, and very difficult remedial work to stabilize the proposed slopes by means of landslide shear keys, buttresses, and stabilization fills, it is nothing short if incredible that anyone could even suggest that this work -- which will involve deep slop-cutting that will have to be performed by using special excavating equipment and extremely conservative backcutting procedures -- could be accomplished at anything close to 30,000 cubic yards per day on *average*.

In fact, the Society has engaged the chief estimator of a local grading contracting firm as a consultant, but, without having access to all the grading plans and to the grading plan review to know what the soils engineer will be recommending regarding how the remedial grading work will have to be performed at the Project, he has been unable to formulate any reasonable estimates of the time or cost that will be involved in the grading -- except to note that the 18-month projection set forth in DSEIR 566 appears to be grossly *underestimated*, possibly by a factor or 100% or more.

The reason that it is important to know the approximate *cost* of the rough grading is that, unless one knows what kind of dollars are involved, one cannot determine whether the measures proposed in DSEIR 566 to mitigate the geotechnical hazards at the site (e.g.,

landslide shear keys, buttresses, stabilization fills, etc) Are truly *feasible,* within the meaning of CEQA section 21061.1, and can be "accomplished in a successful manner within a reasonable period of time, taking into account economic...factors." In other words, the costs of the remedial grading work could turn out to be so prohibitively expensive in light of the economics of the Project that the mitigation measures proposed in the DSEIR might not be feasible and thus could not be used to "substantially lessen" the significant impacts of the grading, within the meaning of CEQA Guidelines section 15091.

Moreover, without knowing the cost of the proposed mitigation measures for the grading (i.e., the 8.9 million cubic yards of remedial work), one cannot determine whether the economics of the Project would make it even remotely possible for the Applicant to meet the 66 6% affordable housing requirement which was imposed as a condition of approval on the Tract Map when it was originally approved in 1979 Although there is a passing reference to this requirement on page 4-11 of DSEIR 566, there is no discussion of whether the requirement of selling 470 of the 705 units of manufactured housing "in the affordable range" would be achievable, even in part, considering the cost of developing the Project at today's prices for labor, equipment, and material

For CEQA compliance purposes, it is imperative that a comprehensive discussion regarding the feasibility of achieving the affordable housing requirement be included in DSEIR 566 and that the document then be recirculated so that the public can see and comment on what evidence there might be, if any, to support any proposed findings or statement of overriding considerations prepared by the Department which attempted to cite the affordable housing component of the Project as a "benefit" which might outweigh the unavoidable adverse impacts of the Project, within the meaning of CEQA Guidelines section 15093

If the Department were to supply the Society with the information it has requested - specifically, the 40-scale grading plan for the entire Project and the geotechnical review of all the grading plans - the Society would be willing to perform the economic analysis necessary to determine whether it would be economically feasible, in light of land acquisition and debt service costs, taxes, planning costs, grading costs, and construction costs, for the Applicant to develop 705 units of manufactured housing and to sell two-thirds of these units as affordable housing. This analysis could then be made a part of DSEIR 566 and the document could be recirculated for public review and comment

Response

The estimate of 30,000 cubic yards of grading per day is appropriate, and can be compared with several other grading projects that have been completed in the vicinity of the project site The Portola Hills project graded a maximum of 100,000 cubic yards per day Costs associated with remedial grading activities have not been provided by the applicant The DEIR, in Section 4.1, beginning on Page 4-1 contains a discussion of the proposed project's affordable housing requirements

CCBG.3-7

Comment

E. The Discussion Of Soils Impacts And Grading Mitigation Measures In DSEIR 566 Is Seriously Deficient And Fails To Address Significant Adverse Impacts Which Will Be Caused By The Rough Grading

To assist it in analyzing and commenting on the "Soils and Geology" section of DSEIR 566, the Society has engaged the services of Kenneth R. King, a registered civil engineer, and John R. Byerly, a registered geotechnical engineer. Unfortunately, the assistance provided by these two consultants has been severely limited due to their inability to obtain access to the 40-scale grading plans and the accompanying grading plan review

Despite not being able to review the essential documents relating to the Grading Application, Mess King and Byerly have nonetheless found serious deficiencies in how important geotechnical issues have been analyzed, or overlooked, in DSEIR 566 In the hope that DSEIR 566 will be revised and recirculated with the appropriate documentation and a more complete analysis of the true impacts and feasible mitigation measures associated with the rough grading of the Project, the Society is providing the comments received to date from Mess King and Byerly.

Response

Please refer to response to comment SFC-1

CCBG 3-8

1. Comments From Ken King

Attached as Exhibit "B" hereto and incorporated herein by reference is a copy of Mr King's preliminary review of section 4 2 "Soils and Geology" of DSEIR 566 The Society requests that each of the points raised in Mr King's report be carefully considered and responded to by the Department. In addition, the Society asks that DSEIR 566 be revised and recirculated with the information necessary to address the deficiencies cited in Mr King's report, particularly with respect to the failure of the DSEIR to analyze the devastating and potentially irremedial impacts which the excavation and dewatering activities will have on the water wells surrounding the Project site

A recent article appearing in the Los Angeles Times, a copy of which is attached as Exhibit "C" hereto and is incorporated herein by reference, supports the concerns raised by Mr. King, for it reports on how the tunneling and dewatering activities for the construction of the Los Angeles subway system have dried up local streambeds and so drastically depleted groundwater resources that once lush plants and vegetation have died off DSEIR 566 should address whether the environmental parade of horribles discussed in the L A. Times article could occur as a result of the grading activities to be undertaken in constructing the Project

This requires a careful study -not simply a response to comments - and the Society requests that it be undertaken before any further action is taken to process the Grading Application

Response

The comment references an article that was published in the Los Angeles Times relating to Metro Rail construction impacts on local ground and surface water. No additional response is required

CCBG.3-9

Comment

2. **Comments From John Byerly.**

The comments received from Mr. Byerly regarding section 4 2 of DSEIR 566 may be summarized as follows

(a) Perched groundwater was encountered in the geotechnical investigations on this site at various elevations in many of the test borings by G.A Nicoll & Associates and others DSEIR 566 alludes to "potential dewatering activities " Remedial grading will require the construction of buttresses and extensive shear keys, involving an estimated 8.9 million cubic yards of earth. The excavations from the shear keys will surely intercept water bearing soil and bedrock layers The potential effect of the disruption of these water bearing layers on water wells located downstream of this project site has not been evaluated in the DSEIR.

Response

Refer to response to comment SFC-1 and SFC.2-18

CCBG.3-10

Comment

(b) During construction, dewatering will remove significant quantities of groundwater and discharge the collected water into existing surface drainage systems The potential impact of the discharge of the removed groundwater, including turbidity, chemical water quality, and potential for erosion and pollution of streams and other riparian areas subject to regulation by state and federal; authorities has not been addressed in the DSEIR.

Response

Refer to response to comment SFC-1

CCBG.3-11

Comment

(c) When the shear keys are completed, they will provide a permanent barrier to the lateral transmission of the presently existing groundwater flow. The groundwater will tend to accumulate behind the shear keys, and could surface unless permanent dewatering systems are provided The analysis of the practicality of permanent dewatering systems, whether

passive or requiring well points and pumps, and the long term effect of dewatering system discharge has not been evaluated in the DSEIR.

Response

Refer to response to comment SFC-1.

CCBG.3-12

Comment

(d) Approximately 2 6 million cubic yards of excavation is estimated to "achieve planned elevations and profiles." An additional 8.9 million cubic yards of remedial grading is also described, including 7 5 million cubic yards for shear key and buttress construction The DSEIR concludes that this grading "would not result in any impact on the stability of adjacent properties." While engineering analysis may show that the *complete* grading improvements would not have an adverse impact on the stability of adjacent property the actual *construction* of these grading improvements may have immense impacts on neighboring properties such as the Monastery and the Abbey For example, the excavation for shear keys will remove support for existing landslide masses, and will expose landslide shear planes. No discussion of the details of assuring adequate support for the landslides extending onto adjacent properties during the excavation and backfilling of shear keys has been provided in the DSEIR.

Response

Refer to response to comment SFC-1.

CCBG 3-13

Comment

(e) Currently, both the Monastery and the Abbey are experiencing ongoing distress due to land slippage. As such, the risk of activating existing landslides and triggering catastrophic land movement on these adjacent properties, particularly during the shear key excavation and backfill process, should be addressed in great detail in the DSEIR

Response

Refer to response to comment SFC-1

CCBG 3-14

Comment

An average daily grading rate of 30,000 cubic yards per day is projected in the DSEIR. However, it is inconceivable that the excavation and filing for the shear keys and buttresses, which constitute at least two-thirds of the total grading anticipated for the Project site, can be accomplished at a grading rate of anything more than 10,000 cubic yards per day at best. Even at the rate of 10,000 cubic yards per day (which is *optimistic* because, if wet material is required to be top-loaded, then only a rate of 5,000 cubic yards per day could be achieved), the grading for the shear key and buttress construction alone will require 35 months to complete -- which is nearly *twice* the duration estimated in the DSEIR. This extended period of grading will also expose the inherently unstable conditions at this site during grading to at least three, if not four, rainy seasons and this has not been accounted for in the DSEIR

Response

Please refer to response to comment CCBG 3-6

CCBG 3-15

(g) Appendix D of DSEIR 566 ("Geotechnical Environmental Impact Report") presents a brief commentary regarding the geotechnical conditions at this site, and a brief review of recommendations for mitigating and remediating adverse conditions The county of Orange Grading Manual (Board of Supervisors Resolution No. 81-1358) and current geotechnical practice require a geotechnical review of 40-scale grading plans to be prepared The developer's geotechnical investigation was performed in 1994, but was done in connection with a different project that involved less extensive grading Subsequent investigations have focused on EIR issues, and have not provided the required specificity to analyze the significant effects of the grading, including impact of dewatering during and following construction, slot cutting or staged excavation to assure ongoing support of landslide masses to be stabilized, backcut and forecut slope inclination, and groundwater water control criteria. The grading plan review report should include all recommendations and geotechnical criteria necessary for a grading contractor to prepare a bid go accomplish the rough grading, and this report should be made part of the DSEIR

Response

Refer to response to comment SFC-1

CCBG 3-16

Comment

(h) Proposed mitigation measure AM-47 on page 4-33 of the DSEIR references total settlements of 4 to 6 inches or more in some areas, and suggest "the degrees and rates of settlement shall be analyzed during the final design phase." The grading plan review report is an appropriate document for this analysis. However, the report should be prepared now, instead of later, and should be made part of the DSEIR

Response

Refer to response to comment SFC-1

CCBG.3-17

Comment

(I) A cursory review of the "Phase I" grading plans for a portion of the Project underscores the need for access to the grading plan review For example, with respect to the proposed buttress excavation near the intersection of El Toro Road and the proposed main entrance road to the Project (Saddleback meadows Drive), the main question to be answered by the grading plan review is how much back slope can be open at any one time to ensure only the 10% slope failure rate predicted in the DSEIR?

Response

Please refer to response to comment SFC-1

CCBG.3-18

Comment

(j) Since the remedial grading quantities are 3.5 times greater than the onsite cut/fill quantities, a large, accessible area will be needed for stockpiling and drying operations, but the grading plans are silent on this point Will off-site areas be needed for stockpiling and for processing wet material? Another question to be answered is how will the slope rights beyond the limits of grading shown on sheet 4 of 13 of the grading plans be obtained in order to construct the buttress? The questions must be answered before the Grading Application can be approved, and thus they should be addressed in the DSEIR

Response

The area in question (sheet 4 of 13 of the grading plans) has the necessary instrument to allow access and the necessary grading of the area. That area along El Toro Road is owned by the County of Orange and all improvements including grading and slope stability will be done as

part of the El Toro Road widening. That area north of the County owned property is owned by St. Michael's Abbey, who in their agreement with the property owner of Saddleback Meadows, granted an access and grading easement (document recorded on January 6, 1989) to allow the implementation of the project.

CCBG 3-19

Comment

In conclusion, the Society sincerely hopes that, in light of ,the important questions and issues raised above regarding the geotechnical impacts of the Project, the Department will request the Applicant to substantially revise and supplement the "Soils and Geology" section of DSEIR 566 so that the DSEIR can be recirculated for public review and comment once all of the grading plans and the grading plan review have been made part of the DSEIR AT that point, the Society and its consultants will be in a much better position to understand and comment on the true environmental effects of the proposed grading and the feasibility of the mitigation measures designed to lessen such impacts. Thank you in advance for the Department's anticipated cooperation in this regard

Response

Please refer to response to comments CCBG 3-1 through CCBG 3-18

3.22 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN LLP, October 15, 1997

CCBG-4.1

Comment

I am writing to inquire whether you have asked the CEQA attorneys in the County Counsel's Office to provide you with an opinion as to the legality of the unprecedented procedure which you Department appears to endorsing in recommending that the Planning Commission proceed to certify Final Subsequent Environmental Impact Report No 566 (the "FSEIR" or the "Subsequent EIR") without *at the same time* reviewing and approving the discretionary "project" for which the FSEIR was prepared in the first place, i e , Grading Application No GA960048 (the "Grading Application")

Apparently, your Department believes that, at next Wednesday's hearing[3], it would be legal for the Planning Commission to certify the FSEIR as if it were a stand-alone agenda item, without giving any consideration to the very project which initially triggered the preparation of the FSEIR—namely, the Grading Application I am not aware that any discretionary approval relating to the Saddleback Meadows project is scheduled to be considered at next Wednesday's hearing, so I am mystified as to how the FSEIR can be certified without some type of project approval being simultaneously considered by the Planning Commission.

I am certain, however, that if you were to consult County Counsel's Office—particularly, Mr. Ben de May whom I know to be a very experienced CEQA attorney—you would be told that it would be ***unlawful*** for the decision-making body of a lead agency to divorce (1) the certification of an EIR from (2) the approval of the discretionary action for which the EIR was prepared As you are well aware, CEQA does not even apply, and no EIR or Negative Declaration need be prepared. As you are well aware CEQA does not even apply, and no EIR or Negative Declaration need be prepared, unless some form of discretionary project approval is being considered by a public agency (*See*, CEQA Guidelines, §§ 15002(I), 15357) The certification of an EIR is not a "project" under CEQA, rather, an EIR is merely an informational document that is to be considered by the lead agency at the time that it approves whatever discretionary action is before it.

The question, therefore, is what is the "discretionary approval" which the Subsequent EIR was originally prepared to address under section 15162 (c) of the CEQA Guidelines? More importantly, what is the "project approval" that would, of necessity, have to be described in any Notice of Determination filed after certification of the FSEIR? The answer to these questions can easily be found in written materials previously generated by your Department

As I have repeatedly noted in my earlier letters to your Department, it is clearly stated on

[3] By means of a form letter dated October 10, 1997, I was informed simply that a "public hearing" on the Saddleback Meadows project will take place next Wednesday, October 22, 1997 No more details as to the subject matter of the hearing were provided in the letter, but I assume that your Department is planning to recommend at the hearing that the Planning commission certify the FSEIR as being "adequate" for some unknown project approval in the future

page 2-8 of DSEIR 566 that, on December 16, 1996, your Department determined that "a Subsequent EIR is required to evaluate the effects of the *grading application*." (Emphasis added.) In addition to what was expressly stated in the DSEIR, Tom Mathews confirmed in his August 12 letter to me that the Grading Application was "the *initiating activity* which resulted in the determination that Draft EIR 566 be prepared " (Emphasis added.)

By your Department's own admission, therefore, the Grading Application was the project approval which *initiated* and *necessitated* the preparation of DSEIR 566, and thus, by law, the Planning commission *cannot* certify the FSEIR without also reviewing and approving the Grading Application Indeed, the Planning Commission cannot *legally* make the findings and statement of overriding considerations necessary to certify the FSEIR without also considering the project approval (i e , the approval of the Grading Application) to which the findings and overriding considerations must necessarily relate.

What is disturbing, however, is that your Department has consistently tried to *separate* (1) a decision on the adequacy of the Subsequent EIR from (2) the decision on the Grading Application. Apparently, your Department feels that it is legally permissible for the Planning Commission to pass on the adequacy of the FSEIR, even through the very project which the FSEIR was explicitly designed to address—specifically, the rough grading plans for the Saddleback meadows project and the issuance of a grading permit based on those plans—will not be available for the review by any agency of the County for months down the road That is simply not how the CEQA process works and I believe your Department is well aware of that fact Indeed, if the procedure which you are proposing for the certification of the FSEIR were to be adopted in other cases involving land use approvals issued by the County, it would make a mockery of the CEQA process.

For example, if it is permissible in this case to certify the FSEIR *wholly separate and apart* from the discretionary approval for which it was prepared, i.e , the Grading Application, then what would stop the County from certifying other EIRs months, or possibly years, ahead of when the planning Commission even considered the project approvals for which the EIRs were prepared? Do you believe that it would be legally proper for the Planning commission to certify and EIR for a tentative tract map without ever having seen or considered the map itself? While that might, in theory, be possible with a Program EIR, it would *not* be possible for a Subsequent EIR that was prepared to address a *specific* discretionary action. So why, then, should it be any different for the FSEIR in this case?

As a cursory review of sections 15112 and 15232 of the CEQA Guidelines will suffice to demonstrate, CEQA presupposes that any court challenge following the certification of an EIR will be aimed at the "approval" of whatever "project" the lead agency considered in conjunction with reviewing the adequacy of the EIR. In this case, however, the anomalous result will be that, if the Planning commission certifies the FSEIR as adequate, there will be *no* project approval to challenge because the Planning Commission is not being asked to grant any project approval

That, of course, will make it impossible for your Department to file an NOD on the FSEIR because, as defined in section 15373 of the CEQA Guidelines, an NOD is only "filed by a

public agency *after it approves or determines to carry out a project* which is subject to the requirements of CEQA" (Emphasis added.) Since your Department proposes to have the Planning Commission certify the FSEIR "in a vacuum" as if it were completely unrelated to any project approval, the County would *not* be entitle to file an NOD under section 15094 of the CEQA Guidelines if the Commission were to certify the FSEIR

As a final point, let me state for the record that the Responses to Comments which I received in the mail from your office are conclusory and patently inadequate, and they do not come close to complying with the very explicit requirements of section 15088 of CEQA Guidelines. Time and again, the Responses fail to address legitimate comments on the DSIER, claiming that such matters will be addressed at some unknown point in the future. Such an approach is clearly improper and should be corrected immediately

Although I feel at this point that it is somewhat futile for me to ask your Department to comply with the clear procedural dictates of CEQA with respect to the FSEIR and the Grading Application, I will ask you, as a show of good faith, to discuss the matters raised above with Mr de Mayo prior to next Wednesday's hearing on the adequacy of the FSEIR. I sincerely believe that he will tell you that you cannot legally do what you are proposing to do.

Response

The grading application, a ministerial permit under local CEQA procedures, was not, and could not have been, the proposed project approval which required preparation of DSEIR 566 as CEQA applies only to discretionary projects. California Quartet concurs in part in the response of the County in its Appeal Issues and Response Document at page 2 of Attachment B of the Department Staff Report for the January 27, 1998 hearing on the appeal of the certification of FSEIR 566

The County of Orange Planning Commission acted on Proposed Final Subsequent EIR 566 after a newly prepared procedure was ratified by the Board of Supervisors at their November 25, 1997 meeting This five step process outlines the specific requirements for review, certification and appeal of FEIR 566, due to the unique nature of the grading permit application and the associated Subsequent EIR. In the case of the Saddleback Meadows project, many factors contributed to the decision to prepare a Subsequent FEIR to evaluate the environmental effects associated with the submittal of a grading permit application for 705 lots, legally created by Recorded Tract Map 10692 in 1988 These facts are based on Section 15162 or the CEQA Guidelines and include

1 Substantial changes had occurred in the environment and related policies and programs since Tract Map 10692 was recorded in 1988;

2 Important new information became available since the certification of EIR documents prepared for the subject site (EIR's 059 and 203), including:

- Establishment of the Natural Communities Conservation

Planning (NCCP) program for Coastal Sage Scrub habitat in response to the federal listing of the California gnatcatcher as a threatened species;

- Listing of the Riverside fairy shrimp as endangered by the U S Fish and Wildlife Service, thereby requiring the preservation/ relocation of ephemeral pond habitat; and

- The importance of the Saddleback Meadows site as a major wildlife corridor and linkage between the Cleveland National Forest and the Whiting Ranch/ Limestone Regional Park open space area.

It was for these reasons that the County considered the whole of the Saddleback Meadows project, or implementation of Recorded Tract 10692, in its decision to prepare Draft Subsequent EIR 566 Grading, although an important component of the proposed project with the potential for severe environmental impacts, was just one of 13 environmental factors evaluated in Final SEIR 566. Grading Application GA960048 was merely the triggering mechanism for the environmental review process. The certification of Final SEIR 566 was not separated from the approval of the grading application, in that all decisions related to the grading application will rely on the information contained within certified Final SEIR 566

Thus, as a logical extension of County's above quoted response, the findings and Statement of overriding considerations are supported by substantial evidence and approval of the Grading Application, a ministerial permit, was not required prior to certification of FSEIR 566.

The County has effectively treated this proceeding as a modification or extension of the previously approved recorded tract map 10692, which is properly subject to subsequent EIR review under section 21166 The CEQA Guidelines define "project" to mean "the whole of an action" that may result in either a direct or indirect physical change in the environment CEQA Guidelines, section 15378(a) "'Project' is given a broad interpretation in order to maximize protection of the environment " McQueen v Board of Directors of the Midpeninsula Regional Open Space District, 202 Cal App 3d 1136, 1143 (1988). In general, the lead agency must analyze fully each "project" in a single environmental review document. Thus, in performing its analysis, the agency should not split a project into two or more segments. This approach ensures "that environmental considerations do not become submerged by chopping a large project into many little ones, each with a potential impact on the environment, which cumulatively may have disastrous consequences " Burbank-Glendale-Pasadena Airport Authority v Hensler, 233 Cal App 3d 577, 592 (1991), see also Bozung v Local Agency Formation Commission, 13 Cal 3d 263, 283-284 (1975) (same)

Consistent with the CEQA definition of "project," the County considered the whole of the

Saddleback Meadows project, or implementation of Recorded Tract Map 10692, in its decision to prepare DSEIR 566 As previously indicated, grading, although an important facet of the proposed project, constituted only one of 13 evaluated environmental factors in FSEIR 566

The Department has not separated its discretionary decision on the adequacy of FSEIR 566 from its ministerial decision on the Grading Application The Planning Commission certified FSEIR 566 in conjunction with its review and approval of the discretionary project considered, i.e., approval of Recorded Tract Map 10692, specifically, the phased development of 705 manufactured single-family residential units and a 1.7 acre neighborhood commercial center. Contrary to appellant's assertion, the Department properly filed a Notice of Determination dated December 5, 1997 after it determined to carry out the Recorded Tract Map 10692 project, which is subject to the requirements of CEQA FSEIR was not certified "in a vacuum" as it was directly related to the project approval as modified consistent with substantial changes that had occurred in the environment and related policies and programs since Tract Map 10692 was recorded in 1988 and important new information available since the certification of EIR documents prepared for the subject site (EIR 059 and EIR 203).

The FSEIR 566 project description at Vol. I page 3-1 states a subsequent EIR has been prepared to consider changed circumstances and new information

> The proposed project would construct the previously approved and Recorded Tract Map 10692. The project was originally approved in December of 1979 and recorded in December of 1988. The original project has been re-analyzed in consideration of changed circumstances and new information on environmental significance not previously considered.
>
> The proposed project, is consistent with Tract Map No 10692, and proposes the phased development of 705 manufactured single family housing units and a 1 5 acre, neighborhood commercial center and associated infrastructure, on a 222 23-acre site on the easterly side of El Toro Road The gross residential density is 3 17 du/ac, with minimum lot sizes of 2,630 square feet.

Under CEQA, when a new application is submitted for a previously approved project, the local agency must determine whether to treat it as an application for a new project, or as a modification or extension of the previously approved project Here, the County has treated this proceeding as a new application by California Quartet for modification of a previously approved tract map project due to changed circumstances and new information Such a modification or extension of a previously approved project is subject to subsequent review standards under section 21166. See S. Kostka and M Zischke, Practice Under The California Environmental Quality Act pp 736-737 and cases cited therein (CEB 1997) See e g. Benton v Board of Supervisors, 226 Cal App 3d 1467 (1991) (initial use permit to construct winery exercised and received final CEQA approval where rights under permit vested, new application to relocate winery, among other modifications, treated as a modification of the

existing winery project, not an entirely new project, although subsequent EIR were not required because three factors under CEQA Guidelines section 15162(a) were not present, one is required if modifications result in any significant environmental impacts)

3.23 COMMENTS AND RESPONSES – CONNOR, CULVER, BLAKE & GRIFFIN LLP, October 16, 1997

CCBG 5-1

Thank you for joining me in the effort to resolve the thorny procedural issues posed by the Planning commission's proposed review of Final Subsequent Environmental Impact Report No 566 (the "FSEIR"). As we agreed on the phone, we are "not in Kansas anymore," and there are no easy answers as to what steps to take under the County's CEQA Procedures when a Subsequent EIR is prepared at the grading permit stage of a development project.

The basic problems facing the county at this point are three-fold in my estimation: (1) CEQA does not allow the certification of an EIR to be divorced from the specific project approval for which the EIR was prepared; (2) the County's CEQA procedures do *not* authorize any decision-making body other than the Board of Supervisors, the Planning commission, or the Subdivision Committee to approve and certify and EIR, certainly such Procedures do *not* contemplate that the Orange County Building Official would ever certify and EIR; and (3) the County's Grading and Excavation Code assumes that all grading permits will be issued by the Building Official, as opposed to the Planning Commission

In order to resolve the dilemma posed by the conflicting legal provisions described above, I do not <u>think</u> that the answer lies in trying to vest the Building Official with the authority to review, approve, and certify a Subsequent EIR I am fairly certain that, at no time since the enactment of CEQA in 1972, has the Orange County Building Official *ever* certified an EIR and there is no reason to head down that perilous path now. Indeed, attempting to empower the Building Official on an *ad hoc* basis to certify EIRs would set a bad precedent and would be at odds with the spirit as well as the letter of the County's CEQA Procedures

I do believe, however, that there are some safe and sane solutions to this procedural conundrum One way to proceed would be to have the Planning Commission and the Building Official work together in a coordinated fashion so that they could jointly decide at a public hearing whether to certify FSEIR 566 and to approve the Grading Application Another solution would be for the Building Official to delegate to the Planning Commission his authority to process and issue a grading permit and then have the Commission work with the Grading Section to formulate the appropriate mitigation measures and other conditions that might be imposed in connection with the issuance of any grading permit provided that it passed muster under CEQA. I am certain that there would also be other joint-power-sharing arrangements that could be worked out between the Planning Commission and the Building Official to deal with this unique situation

Of course, no matter how the county decides to proceed at this point what is absolutely clear is that, whichever decision-making body passes on the adequacy of the FSEIR, that document should address the specific impacts and mitigation measures associated with the rough grading of the project What that means, therefore, is that the Planning Commission should *not* proceed next week to review the adequacy of FSEIR because that document does not address the specific impacts of the grading – for the simple reason that the grading plans and

soils reports for the rough grading are not even available for review at this point

For the Planning Commission to make recommendations about a Subsequent EIR which does not contain any details or discussion regarding the actual grading plans and soils reports which will form the basis of any grading permit issued by the Building Official would be an idle and illegal act. As such, I urge you to advise the Planning Commission not to proceed down this dark tunnel

Ben, I realize we are in uncharted waters here, but that is all the more reason to proceed with caution in conduction and completing the CEQA review process. I do not believe that there is any legal authority, much less any precedent in the annals of Orange County to proceed next week with any action by the Planning Commission to review or approve the FSEIR in its present incomplete state and to make some form of recommendations to the Building Official as to what to do with the FSEIR. That would not be a productive use of the Planning commission's time, nor would it appear to be authorized by law.

When you have had a chance to digest this letter, I would greatly appreciate getting your further thoughts on these matters at your very earliest convenience

Response

The appellant suggests either the Planning Commission and the Building Official should jointly decide at a public hearing whether to certify FSEIR 566 and to approve the Grading Application, or the Building Official should delegate to the Planning Commission his authority to process and issue a grading permit and then have the Commission work with the Grading Section to formulate the appropriate mitigation measures and other conditions that might be imposed in connection with the issuance of any grading permit provided it satisfies CEQA The Planning Commission should not proceed to review the adequacy of FSEIR 566 because the EIR does not address the specific impacts of grading

This comment was responded to when the Board of Supervisors approved a five-step CEQA review process at a November 25, 1997 meeting in an effort to effectively address the appeal process for FSEIR 566. California Quartet concurs in and adopts as its response the analysis contained in Attachment B at page 9 of the Board's Staff Report for the January 27, 1998 public hearing on the appeal of the Commission's certification of FSEIR 566 on this issue:

> In connection with this five-step process, staff is currently in the process of drafting a comprehensive revision to the County Environmental Analysis Procedures, which will incorporate the provisions of Public Resources Code section 21151 This provision requires that certification of an environmental impact report by a non-elected body is appealable to the agency's elected body At the November 25th meeting, Supervisor Spitzer made a motion that the County Grading Code be amended to allow general appeals of issued grading permits On December 16, 1997, the Board declined to so amend the Grading Code

It is the position of the Planning & Development Services Department and Counsel that the Board's decision not to amend the Grading Code does not nullify the five-step CEQA review process approved on November 25th. This five-step process specifically addresses the appropriate procedures for appealing Final Subsequent EIR 566 for the Saddleback Meadows project. The only reference to grading procedures in this process is Step 4's statement that the Building Official may issue the grading permit subsequent to expiration or denial of the appeal or Board certification of the FSEIR This reference does not connect the five-step process to the (at that time) prospective amendment to the Grading Code.

The proposed amendment to the Grading Code would have created a procedure for appealing issued grading permits As previously stated in Final Subsequent EIR 566 and elsewhere in the administrative record for the project, certification of Final Subsequent EIR 566 does not lead to automatic issuance of the grading permit for the Saddleback Meadows project.

In conclusion, if the Planning Commission's certification of Final Subsequent EIR 566 is upheld by the Orange County Board of Supervisors, the project proponent must continue the process of supplying the Subdivision and Grading Services Division the technical data it requires to continue its plan review. Only after the Manager, PDS/Subdivision and Grading Services Division is satisfied with the grading studies and plans submitted, will the grading permit be issued by the County Building Official.

3.24 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN LLP, November 3, 1997

CCBG-6 1

Comment

Thank you for allowing the Vedanta Society (the "Society") to submit comments on the proposed procedures (collectively, the "Procedures") for reviewing the adequacy of Final Subsequent Environmental Impact Report No 566 ("FSEIR 566"). However, before commenting directly on the Procedures which were outlined in your letter of October 24, 1997, the society would like to propose five basic guidelines for the county to use in determining whether the Procedures are fair and lawful, and are consistent with the policy codified in section 15003 of the CEQA Guidelines which provides that the whole purpose of preparing and EIR "is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action."

From the society's perspective, the standards that should be applied in deciding whether the Procedures and adequate and proper are as follows

First, the Procedures should account for the fact that this will be the *last* opportunity for any environmental review of the project by the Planning commission—or any other decision-making body of the County—before a grading permit is issued and the topography and biological resources at the project site are permanently altered and destroyed;

Secondly, given the fact hat there will be *no* additional environmental review prior to the issuance of a grading permit to Aradi, Inc , the Procedures should ensure that *all* appropriate environmental analysis of the adverse impacts and feasible mitigation measures associated with the rough grading of the entire project be completed *before* the Planning Commission is asked to evaluate the adequacy of FSEIR 566,

Third, since we are at the grading permit stage of the development, i e , the last discretionary approval "gate" before construction actually commences, [1] the information to be supplied to the Planning commission should contain the type of construction-level detail and specificity required by section 15146 of the CEQA Guidelines. What this means, for example, is that 40-scale grading plans for the entire project, the grading plan review by the soils engineer of record, and any and all additional studies or reports necessary to (a) fully understand the grading impacts, (b) develop appropriate measures to mitigate those impacts, and c) make the necessary findings and statement of overriding considerations relating thereto, should be *completed* and *furnished* to the Planning commission before it is asked to make any recommendations to the Building Official regarding the adequacy of the environmental documentation prepared in support of Aradi's grading application,

[1] Although Aradi contends that the County's issuance of a grading permit is purely ministerial, this position is belied by the fact that County grading personnel have already exercised their discretion and returned the original grading plans to Aradi's civil engineer for revisions to be made The discussion in the *Friends of Westwood* case makes it whether it is labeled as "ministerial" county regulations

Fourth, since FSEIR 566 was apparently prepared without any notice to the public) as a "Program EIR" and was written with a degree of specificity that would be more appropriate for a general plan amendment or zone change, (b) fails to discuss the construction-level impacts and mitigation measures associated with the very project for which it was originally prepared, i.e., Aradi's December 1996 grading application, and (c) includes a "Response to Comments" section which unfairly and improperly defers for "future consideration" any analysis or response to the *serious* geotechnical and other concerns which were raised by the public in their comments on the Draft EIR, the FSEIR should be revised and recirculated in order to accomplish what it was originally designed to do: "*evaluate the effects of the grading application.*" (DSEIR 566, at p. 2-8, emphasis added.) for example, the "more detailed evaluation of the slope stability, including analyses of buttress backcuts and forecuts, individual cut slope buttresses, etc ," as referred to on page 16, of the Nicoll Report of March 14, 1997 (Appendix D to Draft SEIR) should be *recirculated* for public review and comment *before* it is presented to the Planning Commission to issue any recommendations thereon;

Fifth, once FSEIR 566 has been recirculated in accordance with the dictates of section 21092 1 of CEQA and section 15088.5 of the CEQA Guidelines, a good faith effort should be made to respond to the written comments submitted by the public, and the Planning Commission should have the benefit of those responses before it is asked to recommend any course of action to the Building Official.

When viewed in light of the above standards, it is clear that the Procedures need to be revised to afford adequate time for (1) FSEIR 566 to be appropriately supplemented and recirculated, (2) the public to submit written comments on the revised documentation, including the long-awaited grading plans and geotechnical review of those plans, and (3) the county to respond to such comments. The Society recognizes that to amend the Procedures to accommodate these three additional steps would necessitate a postponement of the December 3 hearing date before the Planning commission, but, at the time of the October 22 hearing, the society asked for a 90-day continuance so that all necessary actions on the part of county staff could be completed before the Planning commission was asked to make a final recommendation on FSEIR 566.

The Society respectfully renews its request for a longer postponement of the Planning commission's consideration of FSEIR 566, and it implores the County not to blindly push ahead with the EIR review process at the expense of the public's right to meaningfully participate in the process. Section 21005 of CEQA provides, in relevant part, that "noncompliance with the information disclosure provisions of this division which *precludes relevant information from being presented to the public agency* may constitute a prejudicial abuse of discretion □ *regardless* of whether a different outcome wold have resulted if the public agency had complied with those provisions." (Emphasis added) If the county implements the Procedures as presently drafted, and does not allow extra time to complete the three steps outlined in the preceding paragraph, the county will be doing exactly what section 21005 forbids, i.e., precluding relevant information regarding FSEIR 566 from being presented to the Planning commission.

Indeed, unless county staff finally requires Aradi's EIR consultant, Urban Vision, to amend

FSEIR 566 to address the construction-level impacts of the grading operations and to fully respond to the comments which the public earlier submitted, but were ignored and deferred, the CEQA review process will remain fatally flawed Given the public controversy surrounding this project, and the environmentally-sensitive property which is at stake, why not take the time do this thing the right way? After all, the public should not be penalized by having to forego its rights simply because the developer is frustrated by the delay which occurred when the Planning commission understandably balked at approving an EIR for a "project" which the commission had never even seen, i.e., the grading application, the grading plans, and the final soils report

Aside from not providing for any time to complete the three steps outlined above, the Procedures also fail to specify whether the Building Official will conduct a joint public hearing with the Planning Commission regarding the certification of FSEIR 566, or will hold his own public hearing to certify the FSEIR, or will afford some other kind of public input. As the society has requested on earlier occasions, the Building Official should work out a joint power-sharing arrangement with the Planning Commission, or delegate his authority to the Planning commission, to ensure that the certification of FSEIR 566 is not divorced from the approval of the project for which it was prepared, the grading application.

The Society still maintains that the Building Official is not authorized under the County's CEQA Procedures to approve and certify an EIR, but, if the County is intent on allowing the Building Official to certify FSEIR 566 at a time *subsequent* to the public hearing which the Planning Commission will conduct on the FSEIR, then the Society respectfully requests that the Building Official hold another public hearing before reaching any decision certifying the FSEIR If there is to be an appeal of the Building Official's decision to the Board of Supervisors, then there needs to be a clear record of the administrative proceedings conducted by him, and the best way to make such a record would be to have the Building Official conduct his own public hearing so that a transcript can be prepared and the doctoring of exhaustion of administrative remedies can be invoked To protect the Building Official from any charges that he improperly performed his duties behind closed doors, a public hearing would probably be the safest route for all concerned and, accordingly, the Society requests that the Procedures be amended to provide for such a public hearing to be held.

If the Procedures were to be modified in the various respects discussed above, then the Society's proposed revisions to the Procedures, and we hope that these matters can be worked out to everyone's satisfaction as quickly as possible

Response

On the issue of the adequacy of procedures for reviewing FSEIR 566, including its analysis of grading impacts, California Quartet incorporates by reference Response to Comments 21 and 22 On the issue of required recirculation of DSEIR 566, California Quartet incorporates by reference Response to Comment CCBG 3 Further, the five-step procedure adopted by the Board of Supervisors for review of DSEIR 566 is consistent with section 2151, which does not require the suggested joint power sharing arrangement Under these procedures, the County Building

Official is authorized to issue the grading permit. As previously stated in FSEIR 566 and elsewhere in the administrative record for the project, certification of FSEIR 566 does not lead to automatic issuance of the grading permit for the project. Only after the Manager, PDS/Subdivision and Grading Services Division is satisfied with the grading studies and plans submitted, will the grading permit be issued by the County Building Official

3.25 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN LLP, November 5, 1997

CCBG-7.1

Comment

I have just received your amended procedures for the review and certification of FSEIR 566, and, unless I am mistaken, the County appears to have gone "full circle" and has now returned to square one by proposing the same unprecedented procedure which I initially questioned in my letter to Mr Brantley of October 15, 1997, and my letter to you of October 16, 1997.

Specifically, the County appears to have retreated to its original position and is again recommending that the Planning commission certify FSEIR 566 without *at the same time* reviewing and approving the discretionary project for which the FSEIR was prepared in the first place, i e , Grading Application No. GA960048 (the "Grading Application").

To say that I am disappointed that the County has "backtracked" on the process would be an understatement. I simply cannot believe that, for the first time in its history, the County is prepared to have the Planning Commission and the Board of Supervisors approve an EIR *in a vacuum* without any knowledge of, or control over, the *approval* of the very project for which the EIR was prepared There is no case law, no statutory authority, no County ordinance, and no exigent circumstances which could possibly justify the unheard of an unlawful procedure which the County is again proposing whereby the *certification* of FSEIR 566 will be handled *separate and apart* from the *approval* of the discretionary action for which the FSEIR was prepared

The cornerstone assumption underlying CEQA is that the public agency which certifies an EIR for a given project will be able to respond to the information set forth in the EIR by making whatever changes or alterations to the project are necessary to avoid or mitigate any adverse impacts on the environment. However, the procedure again being proposed by the County—which (1) delegates the certification of the FSEIR to the exclusive domain of the Planning Commission and the Board of Supervisors and (2) delegates the approval of the project (i.e., the Grading Application) which triggered preparation of the FSEIR to the exclusive domain of the Building Official—completely subverts the environmental review process mandated by CEQA and the CEQA Guidelines.

Section 15002(h) very clearly provides that "□when an EIR shows that a project could cause substantial adverse changes in the environment, the governmental agency must respond to the information by one or more of the following methods (1) changing a proposed project; (2) imposing conditions on the approval of the project, (3) adopting plans or ordinances to control a broader class of projects to avoid the adverse changes, (4) choosing an alternative way of meeting the same need, (5) disapproving the project, (6) finding that changes in, or alterations [to], the project are not feasible, (7) finding that the unavoidable, significant environmental damage is acceptable as provided in section 15093 " Obviously, the procedures now being proposed by the County would *preclude* four of the seven options

listed above, for the Planning commission and the Board of Supervisors would be *powerless* to change the project, impose conditions of approval, choose a project, impose conditions of approval, choose a project alternative, or disapprove the project

Of course, that is not how CEQA is supposed to work. If it were, then CEQA would be a meaningless set of rules because every EIR could simply be funneled to an administrative agency which had no power or authority to actually change or alter a given project in response to the environmental information contained in he EIR Unfortunately, that is exactly what the County is proposing to do in this instance

In this case, however, we are not just debating dry, academic issues of law which will have no impact on the public Rather, the procedures we are talking about could have *serious* consequences for the people who live in and around the project site. Those people, for example, are legitimately concerned that the rough grading operations for which Aradi is now seeking a grading permit will unleash landslides, deplete groundwater resources which serve their water wells, and subject everyone who lives in the area to an ungodly nightmare of noise an dust for a period of time which is greatly in excess of what is *estimated* in the FSEIR. The Planning Commission and the Board of Supervisors should have the ability to respond to the concerns of local residents by requiring changes in the proposed grading plans to eliminate or mitigate the valid concerns of surrounding property owners

NEW PROPOSAL

The fair, decent, and honest thing to do at this point is to have the Board of Supervisors ratify a set of procedures which would bring order to this procedural chaos by establishing a review process which would more closely follow the normal decision-track at the County To this end, the Vedanta Society offers the following new proposal:

The Board of Supervisors should direct the Building Official to complete *all* of his work on the Grading Application (including all necessary revisions to the grading plans and to the geotechnical grading plan review) and then make a *recommendation* to the Planning commission as to the form and content of any grading permit that might be issued to Aradi, including any and all conditions of approval that might be imposed thereon. At that point, the Planning commission should then proceed in accordance with the County's standard CEQA Procedures to review the adequacy of the Subsequent EIR and to exercise its legal options under the CEQA Guidelines by approving, changing, conditioning, or disapproving the grading permit An appeal to the Board of Supervisors would then be allowed following any action taken by the Planning commission with respect to the FSEIR and the grading permit.

I believe that everything would fall into place procedurally if the County would simply recognize that, by requiring the preparation of a Subsequent EIR—first in 1994, and then again in 1996—the review and approval of the Grading Application was changed from a purportedly "ministerial" procedure to a *discretionary* review process In Orange county, the process by which a grading permit is issued for a large development project clearly involves discretionary action on the part of county staff, thus making the permit a discretionary one, within the meaning of the *Day* and *Friends of Westwood* options But, even aside from this

fact, the county's decision in 1994 and 1996 to require that a subsequent EIR be prepared certainly *transformed* the normal grading permit process into one which would necessarily involve the Planning Commission's participation in reviewing and approving the Subsequent EIR, thus further underscoring the *discretionary* nature of the process

Instead of elevating the Building Official to the highest plateau in the County hierarchy by vesting him with power and authority superior to that possessed by the Planning commission and the board of Supervisors, the County should simply proceed with business as usual and let the building Official complete his work on the Grading application with the understanding that, when he is finished, his recommended course of actions will have to be reviewed and approved at a higher level for the simple reason that *a Subsequent EIR is involved.*

If the Planning commission, after considering all of the information set forth in the Subsequent EIR, determines that the grading permit should issue as recommended by the Building Official, then it may proceed to approve the Grading Application, with or without conditions of approval. On the other hand, if the Planning Commission finds that additional mitigation measures are required which would necessitate changes or alternations in the grading plans or the denial of the Grading Application altogether, then the commission would be free to take whatever action it felt appropriate A right of appeal to the board of Supervisors would, of course, be available to seek review of the commission's action

The basic premise underlying the procedures I have outlined above is that, when a subsequent EIR is required at the grading application stage of a development project, the Building Official will no longer be the *final* decision-maker as to whether and in what form a grading permit will issue I believe that the above procedures accommodate the normal chain of command at the County and comply with the dictates of CEQA. I also believe that these procedures respond to the concern expressed earlier by Mr. Ross that the County make allowance for an appeal of any Planning commission action directly to the Board of Supervisors

Implicit in the procedures which I have proposed above is the assumption that (1) whatever documents and materials (e g., grading plans and soils reports) the Building Official considers in making his recommendation to the Planning commission with respect to the Grading Application will be made part of the Subsequent EIR and (2) the updated EIR will be circulated to the public for its review and comments in accordance with normal CEQA procedures I hope that the County will give serious consideration to the society's new proposal and recognize that it is the safest and cleanest way to comply with CWEQA and to satisfy the competing interests of the developer and the public.

Response

The County has not violated CEQA and its guidelines by certifying FSEIR 566 consistent with the procedures adopted by the County on November 25, 1997. Section 21151 requires that certification of an environmental impact report by a non-elected body is appealable to an agency's elected body. Consistent with that provision, the County procedures authorize the Planning Commission to determine whether to certify FSEIR 566, subject to appeal to the

Board of Supervisors. Delegation to the Building Official of the role of decisionmaker for approval of the Grading Application is consistent with that permit's ministerial status

3.26 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN LLP, November 26, 1997

CCBG-8.1

Comment

As we discussed at last night's meeting of the Board of Supervisors, I presume that when your office drafts the ordinance which has been authorized buy the Board, you will ensure that the language of the ordinance comports with both the letter and the spirit of Supervisor Spitzer's motion which called for there to be a right of appeal "from the Planning Commission to the Board" of any grading permit issued in a case in which a Supplemental or Subsequent EIR is required to be prepared at the grading application stage of a given development project. supervisor Spitzer's motion would allow for any grading permit issued in such special case to be appealed *first* to the Planning commission and then to the Board of Supervisors

I should note for the record that the six-step review process approved by the Board last evening does not satisfy the procedural objections which I raised at the meeting and in any earlier letters to you, and those objections still stand However, new procedure is a step in the right direction and my client wants to make sure that the proposed ordinance tracks the language and intent of supervisor Spitzer's motion. In this regard, I would greatly appreciate it if you would provide my office with a draft of the proposed ordinance before it is transmitted to the Board

On a related topic, I remain concerned about the observation made by Lon Watson at last night's meeting regarding the possibility that the grading permit process for the Saddleback Meadows project could move ahead of the enactment of the proposed ordinance, given the fact that there is a 30-day waiting period before the ordinance can go into effect. You expressed the view at last nights meeting that the grading permit process and the ordinance enactment process would proceed in tandem and that no permit would be issued before the ordinance went into effect In order to avoid the unfortunate scenario which Mr Watson correctly noted might occur, please take whatever steps are necessary to advise County staff that no grading permit should be issued for the Saddleback Meadows project until the proposed ordinance has become law.

Thank you in advance for your cooperation with respect to the requests discussed above, and if you have any questions about of the above matters, please give me a call

Response

This issue has been addressed in prior responses The review procedures for FSEIR 566 authorizes the Planning commission to determine whether to certify FSEIR 566 subject to appeal to the Board of Supervisors. The Building Official will render a decision on the grading permit consistent with that permit's ministerial status

3.27 COMMENTS AND RESPONSES - SAUNDRA F. JACOBS, December 2, 1997

SFC 3-1

Comment

Due to conflicting schedules, SFC Consultants (SFC) will not be able to attend the December 3, 1997 Planning Commission meeting where approval of the Final Subsequent EIR 566 (SEIR) for Saddleback Meadows will again be considered, albeit prematurely Please accept these additional comments on the Final SEIR and Mitigation Monitoring program as record of my continued participation in this important CEQA process

On August 22, 1997, SFC provided you and your Planning Commission with nineteen pages of comments on the Draft SEIR Within that document, I highlighted numerous deficiencies in the SEIR which I felt required correction or supplementation prior to the SEIR being certified At the October 22, 1997 Planning Commission meeting, I presented major concerns about the inadequacy of the written responses to my comments, and I raised other questions regarding the adequacy of the SEIR which have not been answered to date. Given the utter lack of responsiveness to the issues that I have raised both orally and in writing, it appears to me now that the County and the applicant have only prepared the SEIR as a "necessary evil" of the CEQA review process, without any attempt being made to seriously consider and respond to public comments on the SEIR As a result, County now has an inadequate SEIR which appears to be on the verge of approval regardless of its content.

SFC acknowledges that, in the weeks following after the October 22 Planning Commission hearing, the County has made additional reports, materials, and technical studies regarding the project available for public review My first reaction, though, is why did the public have to wait until after the Draft SEIR was first presented to the Planning Commission to review this information? With the additional information now available, the written responses to many of SFCs comments from my August 22 letter are no longer valid. More importantly, the additional materials (e.g., mitigation monitoring program, grading plans and soils reports) which have now been made available, are the type of "significant new information" which would require the Draft SEIR to be recirculated under section 15088 5 of the CEQA Guidelines Of course, even aside from the issue of recirculation, the public has not been provided with adequate time within which to review and comment on this late submitted information prior to the December 3 hearing Additional time would be appreciated to fully reply to the responses to my own comments and to respond to the new information, which was not originally circulated with the Draft SEIR

In the little time I have had available to review the new information made available by the county, I still have concerns with the SEIR that have not been adequately addressed. These concerns are attached and should be addressed prior to certification of the FSEIR In the interest of time, I have only addressed those comments from my August 22 letter to which no substantive response has been provided to date. I do not agree that the other responses given to my comments are adequate, but I simply have not had enough time to address them all

As an EIR preparer myself for the past 11 years, I know how easy it is for an EIR preparer to basically "brush-off" legitimate concerns by simply referring the commentor back to sections of the EIR or to other comments responded to in the Final EIR That technique, however, does not satisfy the requirements of section 15088 of the CEQA Guidelines which call for a "good faith, reasoned analysis" to be given in response to a legitimate comment

Although I believe that the written responses to my August 22 comments are woefully inadequate, one of my biggest concerns is that the Mitigation Monitoring Program for the Saddleback Meadows project has not had the benefit of public review and input, despite the acknowledgement of page 9-1 of the Draft SEIR that the "proposed program should be included in the Draft EIR to allow public circulation of the proposal " By pure happenstance, I obtained a coy of the Mitigation Monitoring Program at the October 22 Planning Commission hearing, but I believe it was the only copy available for the public to review Since the implementation of the proposed mitigation measures is so critical in this case, I request that SFC and the other members of the pubic who have commented on the FSEIR be given additional time to submit comments on the adequacy of the Mitigation Monitoring Program

Finally, the Planning Commission should keep in mind, that this recorded map for 705 units does not tie the County to instant EIR certification. CEQA allows for a pubic agency to not approve a project as proposed, if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment (CEQA Guideline Section 15021) The Planning Commission can only override unavoidable adverse impacts if it finds that there are legitimate social, economic, or other considerations, which truly outweigh such impacts Simply assuming, without an economic feasibility study being undertaken in light of changed circumstances, that affordable housing is a feasible overriding consideration, is insufficient to justify the significant environmental effects of the project

Page 3-8, first paragraph. The project description indicates that the removal of the mandated Inclusionary Housing Program requirements could undermine the Countywide calculations used to eliminate the affordable housing mandate. This statement on the surface may seem valid enough, but there is no factual evidence in the EIR to support such speculation Instead of mere speculation, the DSEIR should include a thorough discussion of housing issues, including the possibility of eliminating the need for affordable units and allowing for a more environmentally sensitive project to be considered

The EIR preparer's response to my comment indicates that a thorough analysis of housing issues is beyond the scope of this EIR. Yet to ignore this issue is to allow speculative information into the SEIR which no longer makes this SEIR a defensible document The reason this project has 705 units, and not a more environmentally sensitive number of units, is due to the fact that under the mandated IHP, this project must have 66 2/3 percent affordable units. A thorough discussion of housing issues is therefore not beyond the scope of the SEIR, and is, in fact, one of the major "overriding considerations" being proposed to justify the unavoidable adverse impacts of the project

Response

The response to the comment remains valid. A thorough analysis of current affordable housing issues would require a countywide analysis and, as indicated in the response to comments document, is beyond the scope of a project level SEIR. It should be noted that a summary of the history of the county affordable housing program is included on Page 4-3 of the DSEIR

SFC 3-2

Comment

Notwithstanding the requirements of CEQA Guidelines section 15126(c), the EIR makes no attempt to explore feasible measures to mitigate land use impacts to surrounding areas. Suggested land use mitigation should include Setback criteria, buffer zones of vegetation, pet restrictions, ridgeline protection, project phasing coupled with an Annual Monitoring Report under Zoning code section 7-9-103 2(a)(12) to identify imbalances between development and infrastructure, etc. These new mitigation should be included in a revised draft EIR and recirculated for public review and input

Rather than truthfully indicating that NO additional feasible measures will be provided for this impact (for whatever reason), the EIR preparer refers me back to my initial correspondence with the County in which geotechnical considerations were discussed, not land use mitigation. The EIR preparer also refers me back to Sections 2 0, 3 0 and 4 1 of the DSEIR without any indication as to what I will find in those sections now, that I didn't find in August. A reasonable attempt should be made to respond to this comment prior to certification

Response

Page 2-10 of the DSEIR contains a discussion of the relationship between the recorded tract map and the ability to deviate from it's physical design mandates to incorporate mitigation measures All feasible mitigation measures have been incorporated into the DSEIR to reduce project related impacts to a variety of environmental factors, to the extent that they do not substantially modify the design of recorded tract map 10692

SFC 3-3

Comment

CEQA Guidelines Section 15131 (b) expressly recognizes that construction can adversely impact religious practices: "if the construction of a road and the resulting increase in noise in an area disturbed existing religious practices in the area, the disturbance of the religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environmental." While the Land Use/Housing section of the EIR indicates that the impacts would remain significant, unavoidable and adverse, there is no attempt to mitigate impacts on surrounding religious

uses to any level at all.

The EIR preparer refers me back to the entire DSEIR for mitigation measures which the EIR preparer feels are adequate to respond to this comment. As an EIR preparer myself, I recognize this type of response as a "non-response" to a real issue This comment should be addressed with feasible mitigation measures

Response

As discussed in the response to comment 2 above, all feasible mitigation measures, that would not result in the substantial alteration of the physical design of the recorded tract map, have been incorporated into the DSEIR, to reduce impacts to surrounding land uses, including those with religious practices. These mitigation measures are included throughout Section 4 0 of the DSEIR

SFC 3-4

Comment

Page 4-16, Ground Water. It appears from the State Water Resources Board map of wells in the area that there are at least five wells located northerly, westerly and southerly of the site and landslide areas. These wells depend on the groundwater supplies to remain in operation. During remedial grading, perched groundwater and saturated zones will be encountered (according to the study). This excess groundwater will require pumping to a point to where the bottom layer of the 120-foot key cut will need to be cleaned out. The EIR does not geotechnical discuss the high probability that this excessive pumping may impact groundwater and groundwater recharge to these surrounding wells. Impacts to groundwater and surrounding wells are considered a significant impact in CEQA Guidelines Appendix G(h) and (i). The EIR provides neither discussion of this important issue, nor any mitigation for potential impacts to these wells. While the EIR preparer, or the geotechnical engineer for the project, may speculate that the surrounding wells are being fed by Aliso Creek or "other groundwater", there is no factual basis to support the conclusion that there will be "no significant groundwater impact" caused by project grading and development. The Planning commission must be provided with complete information on this issue before passing on the adequacy of DSEIR 566, and gathering groundwater information during remedial grading for future decisions, and complying with the water resource agencies, is not the proper way to proceed.

The EIR preparer's response indicates that this comment is speculative and declines to deal with the very real concern about the impacts on surrounding water wells Interestingly, the EIR itself includes speculative information that the surrounding wells are being fed by Aliso Creek or other groundwater (in addition to other speculative statements in the SEIR which *SFC* has previously pointed out) My concern here is that the Planning Commission is about to approve a SEIR that incorrectly states that there will be "no significant groundwater impact" caused by the project grading and development. The EIR preparer appears unwilling or unable to perform the analysis necessary to comment on the actual impacts to surrounding

wells.

Response

The response to the comment remains valid, as the commentator has no factual information that would link proposed grading activities to direct effects on local and regional groundwater and specific wells As indicated in the DSEIR, any required groundwater pumping will be in compliance with Orange County Grading Code Requirements

SFC.3-5

Comment

Page 4-24, last two paragraphs. These paragraphs state that "unfavorable conditions (i.e. "some ground water") can be mitigated by implementing corrective grading concepts". Yet the DSEIR only speculates on the mitigation necessary to truly lessen future impacts to the development from groundwater and postpones for future analysis whatever specific mitigation measures might eventually be proposed by the soils engineer for the project (see page 4-25). This is not in keeping with CEQA.

Once the shear keys are cut on the project site, the DSEIR indicates that subdrains will be required. Subdrains and dewatering facilities are permanent features, and are notoriously unreliable. This was the case in the Hidden Hills development located immediately adjacent to the south of this site, and is the proposed location of the emergency access to Saddleback Meadows. In this study, the buttress subdrains failed, or in most cases the subdrains were missing and groundwater backed up behind the buttress fill, severely impacting the residences and infrastructure.[2] To truly mitigate geotechnical impacts to less than significant levels, and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendations should be included in this DSEIR prior to certification. In addition, if in fact the subdrains are only to work temporarily, the DSEIR does not explain to where these subdrains will drain. It is presumed that these features will drain to Los Alisos Creek, which is shown as a blue line on the USGS Quad Map. The EIR should discuss the impact of a permanent alteration to the flow of Los Alisos Creek. A higher degree of specificity on this important issue is required prior to EIR certification.

In the EIR preparer's re-write of the comment, the EIR preparer fails to include an important footnote that was included with my original comment. It is important for the Planning Commission and the Building Official to be aware of other published information that is directly related to geotechnical problems associated with an adjacent project.

Response

The response to the comment remains valid, with or without the inclusion of the referenced

[2]*Nolte and Associates, Inc. Geotechnical Study for Seepage, Slope and Pavement Distress, Portion of Tentative Tract 12272, Orange County, California, 1993; and Geotechnical Report of Slope and Street Repair, and Subdrain Installation, A Portion of Tentative Tract 12272, Orange County, California Both prepared for EPAC Housing Corporation*

footnote.

SFC.3-6

Comment

Page 4-31, Mitigation Measure 2-34. Ironically, this so-called "mitigation measure" provides more detailed information regarding groundwater problems and dewatering than any discussion set forth in the text of DSEIR 566. Although page 4-24 of the text merely alludes to "some" groundwater that might be encountered during grading, this mitigation measure paints a far more graphic and alarming picture. ***"Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within 2 to 5 days after exposure. Additional nuisance water is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher elevations as well as in cuts made late in the year."*** *As indicated above, groundwater wells are located adjacent to the site and landslide areas. Impacts to surrounding groundwater and groundwater wells from required pumping and dewatering are not even discussed in the text of the DSEIR, yet this mitigation measure appears to expect it. Again, the DSEIR does not, but certainly should, discuss the extreme likelihood that this excessive pumping may impact groundwater wells and groundwater recharge to these surrounding wells. Impacts to groundwater and surrounding wells are considered a significant impact under CEQA. The Planning Commission must be provided with enough factual information before it is asked to certify this EIR. Gathering groundwater information during remedial grading is not proper mitigation. To truly mitigate geotechnical and groundwater impacts to less than significant levels, and to a degree that will ensure the Planning Commission that CEQA has been satisfied, additional detailed recommendations on grading, dewatering and impacts to groundwater and groundwater wells should be included in this DSEIR prior to EIR certification. This DSEIR requires a higher degree of specificity on this important issue prior to EIR certification.*

As usual, the EIR preparer refers me back to the catch-all summary on geotechnical information. None of the new information provided in the County library of information includes a sufficient answer to the comment. In fact, the additional information provided by the applicant's geotechnical consultant confirms the groundwater problems that should be addressed in the DSEIR prior to certification. For example, B-22 in Volume 2 of the Geotechnical Report dated August 20, 1997 indicates freestanding water at 91 feet This are of the boring log is in the center of a major landslide area and proposed buttress key (Removal area H on Exhibit 19 of the DSEIR) My comment on groundwater, seepage, and impacts to down gradient wells should be addressed prior to certification

Response

The response to the comment remains valid.

SFC.3-7

Comment

Page 4-33, Section 4.2.7 of the DEIR should be changed to read "implementation of this proposed project, with the mitigation measures outlined above will result in unavoidable adverse geotechnical impacts." At a minimum, there are significant groundwater impacts and slope stability issues that have not been adequately discussed or mitigated in DSEIR 566 and revision and recirculation of the DSEIR is in order to allow public comment on these matters when they are completed.

The EIR preparer once again refers us back to the catch-all response for geotechnical concerns As stated previously, my concern here is that the Planning Commission is about to approve a SEIR that incorrectly states that there will be no unavoidable adverse geotechnical impacts caused by the project grading and development The SEIR should state that there may be significant adverse geotechnical impacts, then proceed to analyze those impacts and potential mitigation measures

Response

The response to the comment remains valid

Section 4.3 Water/Hydrology

SFC.3-8

Comment

EIR 566 appears to utilize the hydrology map from EIR 561 without changing the underlying site plan. While the existing drainage will not change regardless of the site plan, the post development drainage will change from EIR 561 to EIR 566. DSEIR 566 does not include post development drainage calculations. The DSEIR needs to correlate existing versus post-development change in cfs and % in order for the Planning Commission to base its decision on the storm drain improvement plans that were approved in 1988. This subsequent EIR should incorporate all pertinent information and re-verify the prior calculations and not rely solely on County approvals from 1988.

The EIR preparer is correct in pointing out that Exhibit 22 does indeed include the 705-unit site plan for the Conceptual Drainage Plan. However, my comment was referring to the Hydrology Analysis in Appendix L of the DSEIR. The EIR preparer does not respond to the SEIR's lack of post-development drainage calculations The DSEIR needs to correlate existing versus post-development changes in cfs and % in order for the Planning Commission to base its decision on the storm drain improvement plans that were approved in 1988 This subsequent EIR should incorporate all pertinent information and re-verify the prior calculations rather than rely solely on County approvals from 1988.

Response

The response to the comment remains valid The information contained in Section 4 3 of the DSEIR is based on specific hydrology calculations for the proposed 705 unit proposed project, although the bulk of the hydrology information presented in Appendix L of the DSEIR does in fact use the previous 318 unit proposal as the basis for baseline hydrology data collection Pre- and post- development drainage information is contained in Section 4.3 of the DSEIR

SFC.3-9

Comment

Page 4-38 The EIR states that alterations of the rate of flow of groundwater or impacts to groundwater quality are considered to be insignificant. The geotechnical report indicates that groundwater and saturated zones will require dewatering during grading and excavation of the sheer key. Groundwater from these slide planes will require pumping for an undetermined period of times (as demonstrated in Mitigation Measure 2-34). At least five (5) groundwater wells are located near this project site, directly in the path of the groundwater flow. The geotechnical report has completely disregarded the impacts that may be incurred downstream during construction dewatering. ***This EIR section should consider impacts to groundwater as significant,*** *otherwise the Planning Commission should not certify this EIR with an incorrect impact finding.*

The EIR preparer once again refers us back to the standard County conditions of approval as proper mitigation As stated previously, my concern here is that the Planning Commission is about to approve a SEIR that incorrectly states that there will be no significant impacts to groundwater caused by the project grading and development The SEIR should state that "significant impacts may occur to groundwater due to project grading and development," and then proceed to analyze each of these potential, significant impacts

Response

The response to the comment remains valid Mitigation measures SC 2-6 and AM 2-34 will adequately mitigate any project related impacts to groundwater quality

SFC 3-10

Comment

Page 4-42, Mitigation Measure 3-5. How and why is this mitigation important to reducing hydrologic impacts to less than significant levels? What if the upstream and downstream property owners do not sign or agree to a letter of consent? Does the Manager, PDS/Subdivision and Grading Services Division override the property owner and allow consent? The mitigation measure is not enforceable and does not reduce impacts in any way. It should be deleted.

The EIR preparer indicates that SC 3-6 is an adopted County Standard Condition of Approval Yet the comment refers to measure 3-5 This response is non-responsive to the comment. How and why is this mitigation important to reducing hydrologic impacts to less than significant levels? What if the upstream and downstream property owners do not sign or agree to a letter of consent? Does the Manager, PDS/Subdivision and Grading Services Division override the property owner and allow consent?

Response

Mitigation measure 3-5 is not intended to mitigate impacts to groundwater quality Rather, it addresses impacts to surface water hydrology

SFC.3-11

Comment

Page 4-43, Section 4.3.7 indicates that implementation of the proposed mitigation measures would result in no unavoidable adverse impacts to groundwater hydrology, yet there is no information on impacts to downstream wells from excessive dewatering to support the less than significant impact. This conclusion should be changed to ***potentially significant impacts will result after implementation of the mitigation measures.*** *In addition, the new information associated with the new finding will require recirculation of DSEIR 566.*

The EIR preparer has continued to utilize inadequate information to defend the SEIR's conclusion that no unavoidable adverse impact to groundwater hydrology will occur. As stated previously, my concern here is that the Planning Commission is about to approve a SEIR that incorrectly states that there will be no significant impacts to groundwater caused by the project grading and development The impact statement should be changed to state that "significant impacts may occur to groundwater due to project grading and development," then the DSEIR should proceed to analyze those impacts Refer to *SFC* comment 9 above.

Response

The response to the comment remains valid. The commentator's comment relative to dewatering related impacts to downstream wells is speculative and without basis in fact

Section 4.4 Transportation/Circulation

SFC.3-12

Comment

The traffic section of the DSEIR unfairly limits its review of intersection impacts to El Toro Road/Santa Margarita Parkway and north. No explanation is given in the DSEIR for this limiting factor, and no analysis is included for the intersections along El Toro south to the

San Diego Freeway (I-5). The DSEIR should include all intersections that will be impacted by the 705-unit project.

The EIR preparer's response referenced me to the City of Mission Viejo's response CMV 1-CMV 9. Within the responses to CMV 1-CMV 9, the EIR preparer has justified the lack of analysis south of Santa Margarita Parkway to "Distribution of project related traffic generation...has been reviewed and approved by the County of Orange, Traffic Engineering Division." Yet the response goes on to say ". .the majority of traffic will be oriented to the south/west of the site." Please clarify what the EIR preparer is trying to say and respond to the comment properly.

Response

The response to the comment remains valid. The response goes on to indicate the mechanism for determining the project related traffic distribution patterns and the independent verification of the analysis methodology by the County of Orange Traffic Engineering Division

SFC.3-13

Comment

Page 4-52, Section 4.4.2 Effects Found To Be Insignificant. This section concludes that the proposed project would not result in insufficient parking capacity onsite or offsite. This is not consistent with the traffic report in Appendix E which indicates on page 10 that "Verification of adequate parking should be analyzed for the project in conjunction with approval of the site plan." The site plan for Saddleback Meadows is already approved. Lack of available parking for high density housing such as this is the number one Home Owner Association complaint and the subject of many homeowner lawsuits against the developer. The DSEIR should discuss what constitutes a significant parking impact, however, in order to do that, parking verification must be performed first. In order for the traffic engineer's recommendation to be consistent with the DSEIR's finding of insignificance for this parking issue, a parking analysis for the site should be performed prior to certification.

The EIR preparer indicates that parking requirements have been incorporated into the recorded tract map and will be reviewed and verified at the site plan review stage for the commercial land use If this is true, how can the DSEIR declare that impacts to parking are insignificant if the impacts have not even been analyzed yet? The EIR preparer's response is non-responsive

Response

The response to the comment remains valid The recorded tract map was subject to subdivision review requirements at the time of tentative tract map processing and recordation, which included the requirements for the provision of adequate parking for both the residential

and commercial components of the project Additional parking requirement review will be conducted as part of the site plan review process for the commercial site, when a detailed commercial proposal is submitted to the county.

SFC.3-14

Comment

Page 4-83, Mitigation measure 4-15 states that "Verification of adequate parking shall be analyzed for the site in conjunction with approval of the site plan." This mitigation measure should be revised based on the comments from page 4-52, Section 4.4.2.

The EIR preparer responds by substituting mitigation measures AM 4-16 for AM 4-15. When in fact, the comment quotes exactly the second sentence of measure 4-15 not 4-16. Therefore, not only is this response non-responsive to our comment, it refers us back to a previous response that that is also non-responsive

Response

The response to the comment remains valid.

SFC 3-15

Comment

No grading permit should even be considered for issuance until after the gnatcatcher study has been completed per USFWS protocol. Under the Federal Endangered Species Act, all "take" must be accommodated regardless of whether a recorded tract map is involved. This is a grading permit level of detail EIR, and thus, the studies included should reflect CEQA Guidelines Section: 15146: "The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." (i.e. grading plan permit). Section 15146(a) states: "An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy." If USFWS decides that project modifications or on-site mitigation is required, then the final tract map will have to be changed any way.

The EIR preparer once again refers us back to the catch-all response for geotechnical concerns within the Biology Section The EIR should respond to the biological comment prior to certification

Response

The response to the comment remains valid Please refer to the response to USFWS - 8 for a discussion of gnatcatcher survey requirements.

SFC 3-16

Comment

Page 4-148 of EIR 566, Coastal California Gnatcatcher, indicates that no gnatcatcher survey has been performed with USFWS protocol. Specific surveys for presence or absence must be performed at this level of detail for this construction stage in the project. Combined with the disturbing note on the grading plans, the County will lose the ability to monitor any mitigation for the CCG. In order for this EIR to be deemed adequate under CEQA Guidelines Section 15126(c), the focused CCG survey must be performed prior to certification of this EIR.

The EIR preparer refers me back to the response to a similar United States Fish and Wildlife Service comment, which then refers to the necessity of a gnatcatcher survey, utilizing USFWS protocol, performed to the satisfaction of the County The additional mitigation measure does not provide for sufficient mitigation however, should the gnatcatcher be found. This additional mitigation measure is a good start, but it is inadequate for the real purpose of protecting endangered species The measure should include provisions for mitigation of gnatcatcher habitat, including on- and off-site mitigation, if necessary

Response

As indicated on Page 4-150 of the DSEIR, in the absence of a gnatcatcher survey conducted to current USFWS protocol, impacts to the gnatcatcher must be considered significant until proven otherwise by an updated survey Should the gnatcatcher be found onsite during the update surveys, specific mitigation measures would be developed at that time to mitigate any identified impacts to the gnatcatcher.

SFC.3-17

Comment

Page 4-148, Raptor Foraging Habitat. Whatever consultant recommended to the developer that project slopes would constitute sufficient raptor foraging habitat did not determine this through any consultation with either CDFG or the USFWS. Consultation on appropriate impact significant should be reflected in this DSEIR prior to certification.

The EIR preparer has indicated in their response "that on-site and surrounding open space would continue to function as raptor foraging habitats " Please indicate what adequate "on-site" open space is available for implementation of this mitigation measure The DSEIR passage indicates that ".. because of the disturbed nature of most of the present habitat and the restoration of oak woodland and project slopes, sufficient habitat would remain so that these impacts are not considered significant " Please indicate where the oak woodland would be viably restored

Response

Exhibit 7, Site Plan, shows the location of the remaining undisturbed and manufactured open space areas Oak woodland restoration will be required as part of the overall biological resource mitigation program to be negotiated with CDFG and USFWS

SFC.3-18

Comment

Page 4-151, Section 4.7.6, commences its discussion on mitigation measures by stating as a "given" that there is supposedly no ability on the part of the County to "deviate from the final recorded tract map." However, no legal or factual support is given for this statement, and it appears to be directly at odds with CEQA Guidelines Section 15041 which provides that the "lead agency for a project has the authority to require changes in any or all activities involved in the project in order to lessen or avoid significant effects on the environment." If this statement, which appears to be an excuse for not doing a complete mitigation analysis, is based on some unstated legal assumptions about the rights of the developer, then this analysis should be explained in detail in DSEIR 566 to let the public know why CEQA is not being complied with fully.

The EIR preparer, in response to my comment, has referred me back to Section 2 8 of the DSEIR, where it states that "[t]he environmental analyses and evaluations contained in this document are largely informational, and not prescriptive in nature in that mitigation measures which would alter features of the final recorded tract map cannot be implemented to reduce all project impacts to a level of insignificance This is attributable primarily to the physical limitations of the site *[whatever that means]* and the inability to deviate from the final recorded tract map *[this appears to be the hidden reason]."* The Planning Commission should keep in mind that this recorded map for 705 units does not tie the County to instant EIR certification, in which CEQA simply becomes a necessary evil CEQA allows for a public agency to refuse to approve a project as proposed, if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment. (CEQA Guideline Section 15021) The Planning Commission can only override unavoidable adverse impacts if it finds that there are legitimate social, economic, or other considerations which truly outweigh such impacts.

Response

The response to the comment remains valid.

SFC.3-19

Comment

Page 4-153, Mitigation Measures SC 7-1 through 7-7 and measures 7-11 through 7-14 would appear to be of no value in light of the note placed on the preliminary grading plans.

In addition, although EIR 561 provided the mitigation plans as a component of the EIR, DSEIR 566 only provides mitigation in the form of conditions to prepare mitigation plans in the future. The level of detail of the mitigation measures should be commensurate with the level of detail in a recorded tract map. Therefore this EIR does not adequately satisfy CEQA Guidelines Section 15126(c) requirements at this time. Gathering further information and complying with resource agencies in the future is not proper mitigation. Biological mitigation for ACOE and CDFG coordination may change the development plan, which would then require a revised EIR.

The EIR preparer once again refers us back to the catch-all response for geotechnical concerns within the Biology Section. This response is non-responsive to the comment and should be addressed prior to certification of the DSEIR.

Response

The response to the comment remains valid

SFC.3-20

Comment

Page 4-153, Mitigation Measure 7-4 states that the applicant is to provide a summary in acres of coastal sage scrub to be impacted, but this has already been stated in Table 30 of the DSEIR. The mitigation measure only serves to lead the reader back to the beginning of the Impacts section of the DSEIR. The mitigation measure should be specific and consistent with the biological consultants recommendation of "The dedication and long-term preservation of 22.9 acres of habitat of Saddleback Meadows, revegetation of 46.5 acres of Veturan-Diegan transitional coastal sage scrub on site and contribution of the Orange County NCCP."

The EIR preparer has avoided answering the comment, and has not included recommendations from the applicant's own biologist The mitigation measure should be revised as indicated in the comment

Response

The response to the comment remains valid. The requirement for CSS inventory is a requirement of the Orange County NCCP program.

SFC.3-21

Comment

Page 4-153, Mitigation Measure 7-5 states that the applicant shall provide proof that the appropriate Federal approvals required for impacts to Coastal Sage Scrub have been obtained from the USFWS This mitigation measure is misleading because it fails to state

what permit is needed. USFWS may impose additional mitigation measures as part of its review process. In order to assure that USFWS mitigations do not conflict with any other measures in the DSEIR, the consultation with USFWS should be conducted prior to certification of the DSEIR. As with the 1603 and 404 permit, has the applicant submitted a request for USFWS consultation or filed an application? Has the USFWS acknowledged receipt of the application? Was the application deemed complete by the USFWS? What additional information did USFWS ask for? The USFWS has the fewest staff of all three agencies, and processing of the permit and consultation may take more than a year to complete. Is the County going to wait a year for the Section 10a permit prior to issuing the grading permit, as indicated in the mitigation? Or will they issue the preliminary grading permits to allow clearing and grubbing of the site prior to the 10a permit?

The EIR preparer confirms the need for early consultation with the USFWS prior to certification of the SEIR The USFWS's response to the NOP and Draft EIR is not considered consultation As stated in the above comment, the USFWS may impose additional mitigation measures as part of its review process In order to assure that the USFWS mitigations do not conflict with any other measures in the DSEIR, the consultation with the USFWS should be conducted prior to certification of the DSEIR

Response

The response to the comment remains valid The response does not indicate that consultation or permit approvals are required prior to the certification of the FSEIR. Rather, it states that approvals must be obtained prior to the issuance of the grading permit

SFC.3-22

Comment

Page 4-155, Mitigation Measure 7-8, F, states that an experienced nursery or other landscape contractor shall care for the transplanted trees for only six (6) months. The biological report states on page 49, second paragraph, ***"In order to ensure the success of mitigation, the Project proponent should enter into a five year secured agreement with the County of Orange to cover the projected cost to install, monitor, and report on the mitigation Project. This agreement will be in the form of a 100 percent bond."*** *This extremely important mitigation measure is found nowhere in the DSEIR. If the DSEIR does not reflect the recommendations of the expert biologist, then mitigation measure 7-8 F is ineffective and invalid. The DSEIR cannot be certified without amending this measure to reflect the biologist's recommendation.*

The EIR preparer states in their response to this comment that "[t]he provision for five years of biological resource mitigation monitoring is hereby incorporated into the DEIR. Please refer to Corrections and Additions to the DEIR" To no surprise, the Corrections and Additions section of the DEIR states "Page 4-155, Mitigation Measure 7-8: the following mitigation measure is added to the draft EIR: *All biological resource mitigation measures shall be monitored for compliance with applicable resource agency requirements and established success criteria, to the satisfaction of the manager PDS/Subdivisions and the*

Administrator Planning and Zoning." Nowhere in the Corrections section does the five year mitigation monitoring get mentioned If the applicant's own biologist is recommending five years of monitoring, what applicable resource agency requirements and established success criteria are the applicant and the County waiting for?

Response

The response to the comment remains valid Specific post mitigation monitoring time frame requirements will be established by the resource agencies, specific to the mitigation being implemented

SFC.3-23

Comment

Page 4-158, Mitigation Measure 7-12, is not enforceable as a mitigation measure. The mitigation for the wildlife movement corridor should be included as part of the DSEIR for public review. The mitigation measure should list the on-site or off-site options for the movement corridor. This measure should be deleted, and an alternative mitigation measure should be provided.

The EIR preparer's response is non-responsive. The mitigation measure as stated in the DSEIR is as follows "Prior to issuance of grading permits, the applicant shall provide appropriate measures to mitigate the project related impact to on-site wildlife movement to the satisfaction of the USFWS, CDFG and the Administrator, Planning and Zoning. Mitigation shall consider on-site as well as off-site mitigation options, and established fee programs " Based on the actual mitigation measure, the comment above should receive an appropriate response prior to certification. The detail of this SEIR must be commensurate with the project detail, which in this case includes appropriate mitigation measures

Response

The response to the comment remains valid.

SFC 3-24

Comment

Page 4-158, Mitigation Measure 7-14. This measure in not enforceable as a mitigation measure. The relocation and establishment of a mitigation plan should be included as part of this DSEIR as it was with EIR 561.

Once again, the EIR preparer's response to this comment is non-responsive The comment should be answered fully prior to certification rather than simply brushed off as "restat[ing] information contained in the DEIR 566 "

Response

The response to the comment remains valid

Section 4.8 Aesthetics

SFC 3-25

Comment

Page 4-174. Although aesthetic impacts will remain significant, even after mitigation, the Project Design Feature mitigation measures 8-1 through 8-4 are only standard conditions of approval for any development project. Mitigation measure 8-1 requires public utilities to be undergrounded, but the County would require this "Design Feature" anyway. Mitigation measures 8-2 and 8-3 would only truly be design features if the applicant were required to underground all drainage swales. This is more costly, but in order for these aesthetic mitigation measures to be compatible with the biological mitigation of the manufactured slopes providing rapture foraging habitat, the cost would be justified by both mitigations that would be accomplished.

The EIR preparer's response is non-responsive. As an EIR preparer myself, these non-responsive responses are great at redirecting the reader, and ultimately the decision maker, from additional mitigation measures that may cost the applicant more money than anticipated.

Response

The response to the comment remains valid

Section 4.9 Cultural/Scientific Resources

SFC.3-26

Comment

Page 4-178. The DSEIR makes no attempt to analyze either the direct or indirect environmental impacts of the project on the religious or sacred uses within the potential impact area. In this case, the potential impact area extends outside of the property boundary. This important issue should be discussed in the DSEIR prior to certification.

The EIR preparer has effectively led the reader back to sections in the EIR that have already been noted as inadequate based on my first set of comments to the EIR This response is non-responsive and should be addressed prior to certification.

Response

The response remains valid The DSEIR evaluates project related impacts to adjacent

religious land uses throughout section 4.0 of the document.

Mitigation Monitoring Program for FSEIR 566, October 1997

SFC 3-27

Comment

As an EIR preparer, I believe that the mitigation monitoring program is the most important document that will come out of the final approval process for this SEIR The Monitoring Program should be user friendly and a dynamic document, not something to file away on a shelf once approved.

A) The County should require that the applicant hire an independent mitigation monitor, as selected by the County, to assist the County in monitoring and verifying implementation of both the standard county mitigation measures and the additional mitigation measures. For example·

Air Quality. Most of the air quality mitigation measures are the responsibility of the applicant. The applicant, or the applicant's contractor, may not have specialized knowledge of mitigation monitoring, but a specialized mitigation monitor would

Biological Resources. The applicant is responsible for plant relocation This should be delegated to a mitigation monitor to verify implementation

B) No where in the mitigation monitoring program does the USFWS, the CDFG, or the ACOE show up in the Responsible Person column These agencies should be added as responsible parties.

C) None of the additional mitigation measures listed in the Response to Comments are reflected in the Mitigation Monitoring Program For example, as pointed out in *SFC* comment 22 above, the new mitigation should be reflected in the monitoring program prior to certification

Response

The County of Orange has no established procedure or requirements contained within their CEQA implementation guidelines to utilize independent mitigation monitors All mitigation measures adopted by the lead agency will be included in the mitigation monitoring program.

3.28 COMMENTS AND RESPONSES - CONNOR, CULVER, BLAKE & GRIFFIN LLP, December 2, 1997

CCBG-9.1

Comment

In addition to the oral and written objections which it earlier submitted in connection with prior proceedings on this matter, the Vedanta Society of Southern California (the "Society") respectfully submits these further comments in opposition to the proposed certification of Final Subsequent Environmental Impact Report No. 566 ("FSEIR 566"), which is presently scheduled for consideration by the Planning Commission on December 3, 1997

The Society's basic position is that, before allowing the Saddleback Meadows Project (the "Project") to proceed beyond the point of no return i e , the rough grading of the property, the Planning Commission should decide (1)(whether any justification still exists for allowing the Project to remain "exempt" from the Foothill/Trabuco Specific Plan (the "Specific Plan") or (2) whether any conditions presently exist which would trigger the *mandatory* amendment of the Specific Plan to cover the Project, which the Board of Supervisors expressly contemplated in 1991.

If the Project's unwarranted and out-dated *inconsistency* with the Specific Plan were eliminated and the Project were made subject to the land use regulations and criteria set forth in the Specific Plan, a great many of the adverse impacts identified in the FSEIR would be substantially reduced, if not entirely avoided Accordingly, this is an absolutely *critical* project alternative and mitigation factor which must be analyzed before any consideration is given to certifying FSEIR 566 as being final and complete.

Moreover, before taking the fateful step of approving the FSEIR—which will open the door to the issuance of a grading permit for the Project—the members of the Planning Commission should, in good conscience, satisfy themselves that the two principal considerations being proposed by the County staff to justify and *override* the unavoidable adverse impacts associated with the Project (i e , 66% of units to be affordable housing and the landslide areas of the property to be stabilized) are *truly* achievable and not *illusory*

If these two important considerations were shown to be *infeasible*, there is precious little else which could possibly justify *overriding* the incredibly destructive impacts associated with this massive manufactured-housing Project However, can it honestly be said that the Planning Commission members have been supplied with sufficient information to allow them to determine whether two-thirds of the manufactured homes to be built at the site could *feasibly* be sold as "affordable housing" in light of the substantial costs of the remedial grading which will be required? Likewise, can it legitimately be claimed that the Planning Commission members have been given enough information that any of them could state with reasonable certainty that the plan of remedial grading proposed by the applicants' soil engineer (involving 120-foot deep excavations limited to a maximum width of 100 feet at the bottom of the excavation) could *feasibly* be accomplished by any grading contractor in the world?

The Society's message—indeed, its plea--is that, before this huge Project is allowed to pass through its final discretionary approval gate, i.e , the certification of FSEIR 566, the Planning Commission should do everything in its power to ensure that the overriding considerations presented to it are *legitimate* and that every reasonable alternative and feasible mitigation measure has been considered and adopted. The Society fervently believes that the Planning Commission is *not* in a position to certify the FSEIR because there are gaping holes in the environmental analysis which has been done to date which must be resolved before this Project is allowed to proceed.

Considering the fact the Project has remained undeveloped for almost 15 years since it was first approved, the Society implores the Planning Commission to spend the relatively little additional time that it would take to obtain an *impartial* analysis of the four basic issues raised below because the Society is convinced that the *true* facts regarding these matters will clearly demonstrate that FSEIR 566 *should not be certified at this time.*

PRIOR TO CERTIFYING THE FSEIR, A LEGAL AND FACTUAL ANALYSIS SHOULD BE UNDERTAKIN TO ENABLE THE PLANNING COMMISSION TO MAKE AN INFORMED DECISION REGARDING WHETHER THE PROJECT'S BLATANT INCONSISTENCY WITH THE SPECIFIC PLAN SHOULD BE ALLOWED TO CONTINUE

The single, most effective project alternative/mitigation measure that could be applied to the Project to reduce or avoid the adverse impacts associated with its development would be to *eliminate* the Project's glaring *inconsistency* with the Specific Plan which applies to all other properties in the Upper Aliso and Trabuco Canyon Planning Areas. As expressly noted in the Staff Report for the December 3 Planning Commission hearing, when the Specific Plan was originally adopted in December 1991, it was pointedly stated that "□ Accordingly, before proceeding to certify the FSEIR, the Planning commission should direct County staff to undertake a study of (1) the nature and extent to which the existing land use approvals relating to the Project are *inconsistent* with the Specific Plan and (2) the impacts of the Project which would be lessened or avoided if the Project were finally made consistent with the Specific Plan

In conjunction with such a report to be provided by County staff, the Planning Commission should also request a written analysis from County Counsel as to the County's legal right to amend the Specific Plan to make it apply to the Project When the Specific Plan was adopted in December 1991, there was a bankruptcy stay in effect which legally prevented the County from applying the zoning regulations in the specific Plan to the Project, but that bankruptcy stay has long since expired, and the society respectfully submits that there is *no* legal impediment to amending the zoning regulations which apply to the Project

Although much has been made to date of the supposed sanctity of the final map which has been recorded on the Saddleback Meadows property, there is no development agreement or vesting tentative map which applies to the Project, and recent case law makes it quite clear that the mere recordation of a final map does *not* give rise to a "vested right" to complete the project free from the imposition of new ordinances, nor does it prevent the local agency from

changing the zoning regulations which govern the development of the property. For example, in *golden State Homebuilding Associates v. City of Modesto* (1994) 26 Cal.App.4th 601, 607, the Court of Appeal explicitly held that: "Approval of the tentative or final map, however, does not necessarily confer on a developer a vested right to complete the subdivision free from new requirements Thus, absent equitable estoppel, a local agency may *change zoning* or adopt new ordinances well into the development process despite a developer's prior commitment of substantial resources to a project."[1] (Emphasis added)

Regardless of what the Planning Commission ultimately decides to do, there is no harm whatsoever in fully analyzing the pros and cons of eliminating the Project's inconsistency with the Specific Plan before the issue is rendered *moot* by allowing grading to commence on the Project In fact, as a result of undertaking such analysis, the Planning Commission may determine that amending the Specific Plan to cover the Project is *required* by the express language of the Specific Plan (see p III-20 § 3.2b) in the event that the Planning Commission finds that the Project must "deviate" from the approved tract map conditions in order to be economically feasible.

For example, if the Planning commission were to find as a result of the proposed study that the cost of the required remedial grading were so prohibitively expensive as to render the 66% affordable housing condition *unachievable*, then the Planning commission would be obligated by the language of the specific Plan to process an amendment thereto which would determine an appropriate density cap for the Saddleback Meadows property and would establish new development regulations for the Project

PRIOR TO CERTIFYING THE FSEIR, A STUDY BY A NEUTRAL SOILS ENGINEER SHOULD BE UNDERTAKEN TO DETERMINE WHETHER THE PROPOSED STABILIZATION OF THE EXTENSIVE LANDSLIDE AREAS OF THE PROJECT CAN BE FEASIBLY ACCOMPLISHED

Since County staff is recommending that the Planning Commission override the adverse impacts identified in FSEIR 566 on the basis of, among other things, the claim that the Project "will stabilize existing unstable geotechnical conditions adjacent to El Toro Road", the Planning commission should require that credible information be provided to support this claim. To date, the Society has repeatedly requested that the applicant's soil engineer, G A Nicoll & Associates, Inc ("Nicoll"), provide such basic information as the design of the shear keys that will be constructed as part of the 8.9 million cubic yards of remedial grading that will be undertaken at the Saddleback Meadows property However, despite the numerous reports that have been submitted by Nicoll, not one of them has provided sufficient information for the Society's geotechnical consultants to evaluate the adequacy of the proposed remedial grading plan

Considering, for example that, in section 13.4 3 a of Volume 1 of its August 1997 report, Nicoll has now recommended that "several of the key excavations be made in sections so that the exposed key bottoms are not longer than 100 feet at any given time." With this

[1] See also, Avco Community Developers, Inc v South Coast Regional Com (1976) 17 Cal.3d.785 791· Laguna Village, Inc. v. County of Orange (1985) 166 Cal App.3d 125

recommendation in mind, how will it be humanly possible for the grading contractor to limit the width of the bottom of the key excavation at locations (such as immediately adjacent to El Toro Road) where the excavations must extend to a depth of 120 feet into the ground? How *possibly* will a grading contractor be able to get his grading equipment in and out of such a deep and narrow cut? Unless a credible explanation is provided by the applicant's soils engineer as to how this extraordinary feat of grading will be accomplished, the assumption by County staff that geotechnical stability of the *unsuitable* areas of the Project can feasibly be achieved will have to be abandoned.

Of course, without the applicant's soils engineer having provided even the most basic *concept* as to how shear key excavations will be accomplished in a manner which will not activate massive landsliding on the property, it is *impossible* to formulate an accurate estimate as to the cost and duration of the proposed rough grading of the Project. The Planning commission should require, therefore, that an independent analysis be performed by a neutral soils engineer to develop a *reasonable* estimate of how long it will take to successfully complete the remedial grading for the Project. The Society submits that any such estimate would be far in excess of the "18 month" estimate for the completion of *all* grading operations which is set forth in FSEIR 566 At a minimum, before certifying the FSEIOR, the Planning Commission should know with reasonable accuracy *how long* it will take to complete the grading of the Project because the duration of the grading is one of the most significant impacts associated with the Project in terms of how adjoining landowners will be affected

In light of the several new reports prepared by Nicoll which arrived in the mail yesterday as part o the Staff Report for the December 3 hearing, the society has asked its civil engineering consultant; Kenneth R. King, to prepare written comments to expand on the need for an independent analysis to be undertaken to address the geotechnical concerns listed above The society hopes to be able to submit those comments to County staff and the Planning Commission prior to Wednesday's hearing, but the late arrival of the Nicoll reports may make this a difficult task to accomplish

PRIOR TO CERTIFYING THE FSEIR, AN ECONOMIC FEASIBILITY STUDY SHOULD BE UNDERTAKEN TO DETERMINE WHETHER THE AFFORDABLE HOUSING CONDITIONS IMPOSED ON THE PROJECT ARE TRULY ACHIEVABLE

Time and time again, comments have been made by various interested parties, including County personnel, to the effect that the cost of the remedial grading will be so prohibitively expensive that the Project may not be economically viable However, although there has been a great deal of speculation about the economic feasibility of the Project, *nowhere* in the FSEIR is there any financial analysis showing that most important overriding consideration relating to the Project—i e , the sale of 66% of the manufactured housing units as affordable housing—can actually be achieved in light of reasonably foreseeable development costs The Society believes that, if an independent expert were to analyze the development costs associated with the Project, the expert would most certainly conclude that it would *not* be feasible to meet the 66% affordable housing conditions which were imposed some 15 years ago

Based on the "County of Orange Housing Affordability Table," a copy of which is attached as Exhibit "A" hereto, an analysis should be performed to demonstrate that, after allowing for reasonably anticipated land acquisition, processing, grading, and construction costs, the manufactured housing that is to be developed as part of the Project could be profitably sold at prices which would not require monthly mortgage payments in excess of $1,311 00 to $1,967 00. Of critical importance to this analysis would be to arrive at a reasonable estimate of the rough grading cost per unit of manufactured housing.

With the extremely limited information made available in the FSEIR and the recent reports prepared by Nicoll, the Society's grading consultant has conservatively estimated this cost to be approximately $51,525 per unit, based upon a total estimate of $36,325,000 to complete all grading operations for the Project. This estimate only consists of the per unit cost to grade the Saddleback Meadows property and does *not* include the related costs associated with civil engineering services, soils engineering services, street improvements, permits and fees, utilities, land acquisition, development services, and the actual construction of the manufactured housing units. A more scientific estimate should be prepared by an independent consultant who is supplied with all the information that he or she needs to develop a more accurate estimate of development costs and to project reasonable sales prices for the manufactured units in question

Unless and until such an impartial analysis of the economic feasibility of achieving the affordable housing condition imposed on the Project is undertaken, the Planning Commission will be proceeding on *pure speculation* that this condition is still achievable some 15 years after it was originally imposed in the early 1980's. all that the Society is asking is that, before proceeding to certify the FSEIR on the grounds that it will provide 66% affordable housing, the Planning Commission cause a written analysis to be prepared to address the economic feasibility of meeting the affordable housing requirements. At this point in time, there is *absolutely no factual basis in the record* to support any claim by County staff that the affordable housing conditions will truly be met

PRIOR TO CERTIFYING THE FSEIR, THE PLANNING COMMISSION SHOULD REQUIRE THAT THE PROPOSED MITIGATION MONITORING PROGRAM BE REVISED TO INCORPORATE REASONABLE PROVISIONS TO SAFEGUARD THE GEOTECHNICAL STABILITY OF THE SADDLEBACK MEADOWS PROPERTY AND ALL SURROUNDING PROPERTIES

Aside from their legitimate fear that their water wells will run dry as a result of the groundwater tables being disturbed and depleted during the rough grading operations for the Project, one of the paramount concerns shared by all surrounding property owners is that the deep excavations to be undertaken as part of the rough grading will undermine and destabilize their properties These property owners, such as the society, are also concerned that rough grading operations will be commenced, but will never be completed, due to the substantial costs of the grading and the difficulty of successfully remediating the landslide conditions that pervade the Saddleback Meadows property.

Given these serious concerns, the Society requests that the proposed Mitigation Monitoring

Program for the Project be revised to include reasonable measures to alleviate these potential problems Specifically, the society requests that the Planning Commission direct the County staff to incorporate the geotechnical mitigation measures which have been devised by the Society's civil engineering consultant, Mr King, a copy of which is attached as Exhibit "B" hereto.

Without adequate *monitoring*, the mitigation measures which have been proposed by county staff for implementation during the remedial grading operations, will not be effective, and thus the Society beseeches the Planning commission to adopt the monitoring measures proposed by the Society to ensure that the remedial grading proceeds smoothly In this regard, the Society believes that the Planning commission should require the applicant to post adequate bonds, or otherwise arrange for other forms of insurance, to protect against landslide damage to adjoining properties. In addition, the applicant should be required to post a full-faith performance bond in the amount of the *total cost* of the grading (i.e., approximately $36,325,000) to ensure that the grading will be completed in the event that the applicant is unable or unwilling to finish the rough grading

In conclusion, the Society simply asks that the Planning Commission allow sufficient time for the County staff to satisfy the four requests listed above before consideration is given to certifying the FSEIR. The Society also request that, in addition to meeting the above requests, the Planning commission direct the County staff to provide adequate responses to the comments which the Society submitted on the Draft SEIR last August. As a final matter, the Society believes that the grading plans and other geotechnical data and materials, such as the August and November reports prepared by Nicoll, constitute the type of significant new information which warrants recirculation of the Draft SEIR At no point during this CEQA review process has the Society, or any other member of the public, been provided with adequate time within which to review and comment on all the necessary environmental documentation and to receive good faith responses to its comments in compliance with section 15088 of the CEQA Guidelines

There is still time to rectify many problems and deficiencies which have plagued the CEQA review process for FSEIR 566, and the Society sincerely hopes that the Planning Commission will take the courageous steps necessary to remedy these problem

SADDLEBACK MEADOWS RECOMMENDED CONDITIONS OF APPROVAL, DECEMBER 1, 1997

The detailed evaluation of the slide plane and design of the shear keys have been deferred to the time of Grading Plan review for permit An independent third party geotechnical engineer/geologist approved by the County shall be retained by the owner to conduct a review of the data provided. If the plan check review indicates any risk to the adjoining properties, the Grading Permit shall be denied.

The Owner shall provide a Contingency Plan for rapid response in the event of back cut or slide plane failure. This contingency plan shall set for the means, methods, personnel, and equipment for response to the failure

Slope inclinometers shall be placed at critical locations around the perimeter of the areas to be graded The number, locations and depth of the slope inclinometers shall be reviewed and approved by the independent third party geotechnical engineer/geologist The slope inclinometers shall be read on at least a monthly basis during the course of grading and a report shall be submitted to the County. Slope inclinometer reading frequency shall be increased to a weekly basis for those inclinometers on or at the head of slide masses during the period in which shear keys are being constructed.

Prior to issuance of a Grading Permit, the Owner shall submit a Plan for Excavation indicating the following items:

Grading Sequence Plan – Shear key excavations have been proposed which exceed 120 feet in depth. A plan shall be submitted which details the sequencing of each phase of excavation to minimize the potential for failure

Stockpile Plan – Shear key excavations will generate large quantities of wet soil. This soil must be stockpiled in a manner which facilitates drying These stockpiles must be located in a manner which does not place a surcharge load on existing slide planes. Since the majority of the site is underlain by known active landslides, the Stockpile Plan must be carefully considered.

Sediment Discharge Control Plan – The California Water Quality Control Board requires a plan for control of pollution derived from grading operations. The permanent de-watering of the areas behind the shear keys must also be monitored for contaminants derived from disturbance of the groundwater

Plan for Perpetual Maintenance of Shear Key De-watering Facilities – The shear keys must be perpetually de-watered These facilities, together with subdrain systems to prevent surface emanation of groundwater, must be monitored and maintained. A mechanism shall be developed for the administration and funding of de-watering and subdrainage facilities

Site Protection During Inclement Weather – The site must be protected from stormwater Allowing water to accumulate in the bottom of shear key excavations can lead to catastrophic consequences.

The project site is ringed with water wells serving adjoining properties The proposed de-watering of shear key excavations may result in the drying up of existing wells, or may affect the water quality in the wells Owner shall provide a contingency plan for servicing replacement water to the affected well owners

The knowledge of geological conditions will be enhanced as grading proceeds The exposed geologic conditions shall be continually evaluated by the project geotechnical engineer/geologist. An independent third party geotechnical engineer/geologist approved by the County shall be engaged to review the progress of the work, to evaluate the findings of the project geotechnical engineer/geologist, to provide weekly reports in the County.

The site shall be fenced, patrolled, or otherwise protected to keep children out of the deep excavations.

The Owner shall provide a faithful performance bond in an amount of 100% of the estimated cost of grading to ensure the proper completion of site grading in conformance with the approved grading plan In addition, the Owner shall provide bonding or insurance coverage to ensure the restoration of adjoining properties in the event of failure

Response

FSEIR 566 adequately examines reasonable alternatives to the Project. An EIR is generally required to describe "a range of reasonable alternatives to the project, or to the location of the project, which feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." CEQA Guidelines section 15126(d), Citizens of Goleta Valley v. County of Santa Barbara, 52 Cal.3d 553, 564-565 (1990) ("Goleta Valley") The EIR's discussion of potential alternatives is intended to serve the same purpose as its discussion of mitigation measures; both are intended to identify ways by which the project objectives may be met at less environmental cost. Laurel Heights, Improvements Association v Regents of University of California, 47 Cal 3d 376, 403 (1988) ("Laurel Heights"), CEQA Guidelines section 15126(d)(1) There is no fixed rule or "categorical imperative" as to the number or type of alternatives which must be considered in an EIR. Goleta Valley, supra, 52 Cal 3d 566. What is appropriate in any given EIR depends on the facts of the case Id. Generally, the EIR's selection of alternatives is subject to a "rule of reason." Id. at 565; Residents Ad Hoc Stadium Committee v Board of Trustees, 89 Cal App.3d 274, 286-287 (1979) ("Residents"), Guidelines section 15126(d)(5).

The decisional law and CEQA Guidelines have elaborated a number of fundamental principles guiding application of this "rule of reason " First, and foremost, the EIR need only address alternatives which are capable of reducing one or more of the environmental impacts of the proposed project Guidelines section 15126(d)(1), (5), Goleta Valley, supra, 52 Cal 3d 553, 566 [alternatives must "offer substantial environmental advantages" over the proposed project]) Second, the EIR need only evaluate in detail alternatives which "could feasibly achieve most of the basic objectives of the project." (Guidelines section 15126(d)(5), emphasis added; Al Larson Boat Shop, Inc v Board of Harbor Commissioners, 18 Cal App 4th 729, 745, (1993) ("Al Larson Boat Shop") Third, the EIR need only evaluate alternatives which are actually feasible, i.e., capable of being "accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors " Goleta Valley, supra, 52 Cal.3d 553, 574; Guidelines section 15126(d)(5).) The EIR thus need not consider alternatives which are of merely theoretical interest, but have little likelihood of garnering economic, political or other support necessary to make them a reality. See e.g., Residents Ad Hoc, supra, 89 Cal.App.3d 274, 287-288. Lastly, an EIR generally is not required to consider alternatives which would require fundamental rethinking of past policy decisions such as those embodied in a local government's specific plan, which must be consistent with the general plan. See Goleta Valley, supra, 52 Cal 3d at 553 570-574; Save Our Residential Environment v City of West Hollywood, 9 Cal App.4th 1745, 1752 (1992). In any case, while an agency may consider

project alternatives which require changes to an existing general or specific plan, it is generally not under a duty to do so Goleta Valley, supra, 52 Cal 3d at 573

In this case, County determined that FSEIR 566 presented a reasonable range of alternatives[4] for consideration and adequately addresses mitigation measures for all project related environmental impacts. Specifically, it contains an in-depth analysis of thirteen (13) environmental factors identified as being potentially impacted in the Initial Study prepared for the 705 unit final recorded tract map The County prepared FSEIR 566 as a subsequent EIR consistent with CEQA Guidelines section 15162 and incorporated EIRs 059, 061, 203, 439, 459, 531 and 561 by reference. In addition, the Response to Comments document dated October 1997 comprehensively addresses issues raised in individual comment letters.

Appellant contends FSEIR 566 was required to consider a Specific Plan Amendment alternative and cites Golden State Homebuilding Associates v. City of Modesto, 26 Cal.App.4th 601, 607 (1994) for the proposition the recordation of Final Tract Map 10692 did not give rise to a vested right to complete the project free from new zoning or other ordinance requirements despite California Quartet's prior commitment of substantial resources to the project The Specific Plan amendment alternative proposed by appellant is inconsistent with the primary Project objective of providing 66% affordable housing. Also FSEIR 566 was not required to consider the suggested Specific Plan Amendment alternative as it would require County's fundamental re-thinking of past policy decisions regarding exemption of the Project site from Specific Plan requirements for the Bridlewood Residential District County's determination of a range of reasonable alternatives must be upheld as they are supported by substantial evidence in the record Laurel Heights, supra, 47 Cal.3d at 392-393.

Appellant also contends FSEIR 566 should not have been certified until a determination had been made that certain aspects of the Project – namely, the requirement of 66% of the units to be affordable housing and stabilization of landslide areas of the property, were feasible. Under section 21004 and CEQA Guidelines section 15040, mitigation measures that go beyond the powers conferred by law on lead agencies are legally infeasible. Kenneth Mebane Ranches v. Superior Court, 10 Cal.App 4th 276 291 (1992) Under CEQA Guidelines section 15364 "feasible" is defined as capable of being accomplished in reasonable time, considering various matters, including legal factors The legal infeasibility of a particular mitigation measure may be uncertain However, it is not the purpose of an EIR to include a legal analysis of applicable legal issues concerning the validity of conditions and other mitigation measures

The Project Mitigation Monitoring Report dated October 19, 1997 specifically provides a mitigation measure on the issue of affordable housing It states

> AM2-54 Prior to the issuance of the first building permit for residential purposes, an Affordable Housing Implementation Plan

4 These alternatives are Alternative No 1 -- No Project/No Development, Alternative No 2 -- Foothill Trabuco Specific Plan -- Staff Alternative A, Alternative No 3 -- Foothill Trabuco Specific Plan -- Staff Alternative B, Alternative No. 4 -- 299 Unit Single Family Housing Alternative, and, Alternative No 5 -- Cluster/Single Family/Multifamily Residential See FSEIR 566 at 1-2

(AHIP) shall be submitted to and approved by the Manager, Environmental & Project Planning Services Division. Said Plan shall identify how the 66 - 2/3% affordable housing requirements of Recorded Tract 10692 will be met

FSEIR 566 also sets forth numerous mitigation measures relating to geotechnical conditions, including the possibility of landslides relating to the subject Project FSEIR 566 indicates that earth resource impacts resulting from the proposed Project could be considered significant if it causes any of a number of impacts, including changes in the geologic substructure or unstable earth conditions, exposures of people or property to geological hazards like landslides, mudslides, ground failure or similar hazards FSEIR 566 at page 4-25. At pages 4-25 through 4-33, FSEIR 566 lists project design features, Standard County Conditions and Mitigation Measures, Additional Mitigation Measures, Material Section Compaction Requirements, Shrinkage/Subsidence Requirements, Excavating Conditions, Expansion Potential, Utility Trenching, Surface Drainage, Sulfate Content, Grading Control, Slabs on Grade, Foundations, Long-term Settlements, and Phasing of earthwork, many of which involve mitigation measures relating to the possibility of landslides The EIR concludes that implementation of the proposed Project, with the mitigation measures outlined in section 4 2.6 at pages 4-25 through 4-33, would not result in any unavoidable adverse geotechnical impacts.

Accordingly, FSEIR 566 properly proposes and prescribes mitigation measures to minimize the significant environmental effects identified in FSEIR 566. Section 21002.1(a), 21100(b)(3); CEQA Guidelines section 15126(c). The above-described mitigation measures satisfy the operative language in the CEQA Guidelines that mitigation measures must be designed to "minimize" significant environmental impacts, not necessarily to eliminate them all together Section 21100(b)(3); CEQA Guidelines section 15126(c) Thus record evidence reveals FSEIR 566 properly sets forth (section 21100) and "describes" (CEQA Guidelines section 15126(c) proposed mitigation measures on affordable housing requirements and landslide stabilization feasibility

To the extent Appellant is challenging the adequacy of mitigation measures discussed in the EIR, the County's conclusion that the mitigation measures set forth in the Mitigation Monitoring Report will be effective must also be upheld if supported by substantial evidence Sacramento Old City Assn v City Council, 229 Cal.App 3d 1011 (1991), citing Laurel Heights, 47 Cal 3d 376, 407 There is ample evidence in the record to support County's determination that the mitigation program discussed in FSEIR 566 and the Mitigation Monitoring Report will result in full mitigation.

Appellant also questions the adequacy of FSEIR 566's Statement of Overriding Considerations Judicial deference to statements of overriding considerations reflect the fact that determining a Project's benefits and the weight to be given them, when balanced upon the Project's environmental impacts, is highly discretionary. The CEQA statute and guidelines reflect this by referring broadly to "economic, legal, social, technological or other project benefits" as possible bases for a Statement of Overriding Considerations. See Public Resources Code section 21081(b); CEQA Guideline section 15093(a). Projects are often

found to be justified, despite unmitigated environmental effects, on the basis of policy considerations. See Towards, supra, 200 Cal App.3d 671 (1988). Also, the CEQA Guidelines require that an agency's "reasons" be based on "the final EIR and/or information in the record." CEQA Guideline section 15093(b). Sierra Club v. Contra Costa County, 10 Cal.App.4th 1212, 1223 (1992) held that a statement of overriding considerations must be supported by "substantial evidence in the record" of the agency proceedings The FSEIR 566 statement of overriding considerations identifies five major benefits to be gained by the public which constitute overriding considerations in making the determination to approve the Project, despite the unavoidable adverse impacts identified in section 8.0 of Draft EIR 566 and discussed in the Statement of Overriding Considerations under Section 2 0 (significant environmental effects which cannot be avoided if the project is implemented). The Statement of Overriding Considerations recites that these benefits outweigh the unavoidable adverse impacts to the environment, and include the elimination of geotechnical instability (the currently proposed project will stabilize existing unstable geotechnical conditions adjacent to El Toro Road); affordable housing opportunities (the Project will provide affordable housing opportunities in an area which is currently jobs rich/affordable housing poor; conditions imposed on Recorded Tract Map 10692 require that 66% (470 units) be provided in the Orange County affordable housing range), drainage system improvements (the Project proposes to improve existing Aliso Creek drainage where the trapezoidal concrete channel, adjacent to western project boundary and onsite drainages will be improved with underground storm drain systems, reducing erosion and sedimentation of Aliso Creek), circulation improvements (the Project will contribute to circulation improvements through major geotechnical work needed to stabilize and widen El Toro Road); recreational linkage -- local/regional trails (implementation of the Project will culminate in the provision of access to the County Regional Riding and Hiking Trail System, which currently includes 348 miles of existing and proposed trails throughout the region) Clearly, the record evidence supports the factual premises that underlie County's policy choice to proceed with the Project when it determines that the Project's benefits outweighed its adverse environmental impacts (see e.g. Markley v City Council, 131 Cal.App.3d 656 (1982) (provision of new housing was appropriate overriding consideration); City of Poway v City of San Diego, 155 Cal App 3d 1037 (1984) (need for housing justified project approval despite impacts)

APPENDIX A

ADOPTED EIR 566 REVIEW/ CERTIFICATION PROCEDURES

Attachment D

CONSENT [ ]
DISCUSSION [X]
PUBLIC HEARING [ ]

CEO REVIEW
[X] Concur
[ ] Do Not Concur
[ ] Exempt

TO: BOARD OF SUPERVISORS, COUNTY OF ORANGE
FROM: Thomas B. Mathews, Planning & Development Dept.
Laurence M. Watson, County Counsel

CONTACT FOR INFORMATION
George Britton, PDS 834-6312
Ben de Mayo 834-6294
County Counsel

MEETING DATE	SUBJECT	SUPV. DIST.
November 25, 1997	Saddleback Meadows Draft Supplemental Environmental Impact Report 566 Review Procedures	3

SUMMARY OF REQUEST (Description for Agenda):
Establish procedures for review of Draft Supplemental Environmental Impact Report 566 for Saddleback Meadows and initiate revisions to County environmental procedures.

ADDITIONAL DATA:
On October 22, 1997 the Planning Commission commenced consideration of the adequacy of draft Supplemental Environmental Impact Report 566 for Saddleback Meadows pursuant to Orange County Evironmental Analysis Procedures Section IX.A. Public Resources Code Section 21151 requires that a certification of an environmental impact report by a non-elected body is appealable to the agency's elected body.

(Continued on Page 2)

PREVIOUS RELEVANT BOARD ACTIONS ON THIS SPECIFIC ITEM:
None

FUNDING SOURCE(S)	CURRENT YEAR COST	ANNUAL COST	BUDGETED?
	none		[ ] YES [ ] NO

WILL PROPOSAL REQUIRE ADDITIONAL PERSONNEL?
[X] NO IF YES, STATE NUMBER ___ PERMANENT ___ LIMITED TERM

CONSISTENT WITH BOARD POLICY?
[ ] YES [X] NEW ITEM OR EXCEPTION

RECOMMENDED ACTION:
1) Adopt attached policy for review of Draft Supplemental Environmental Impact Report 566 for Saddleback Meadows.

2) Direct Planning and Development Services to initiate revisions to the County Environmental Analysis Procedures for consideration by the Planning Commission and adoption by the Board of Supervisors.

CONCURRENCES (If Applicable)	ATTACHMENTS

Thomas B. Mathews, Director
Planning and Development Services Department

for Laurence M. Watson
County Counsel

ATTACHMENT E

RECEIVED TIME NOV.12. 4:10PM PRINT TIME NOV.12. 4:12PM

Attachment D

ADDITIONAL DATA:

After considering written and oral testimony at the October 22 Planning Commission hearing on this item, as well as subsequent written correspondence from attorneys for the interested parties, staff recommends that your Board adopt the following procedures for consideration of the subject EIR.

1) On December 3, 1997, the Planning Commission hears testimony regarding the adequacy of DSEIR 566 and makes a determination whether to certify the EIR.

2) Any interested party may appeal a decision by the Planning Commission certifying the DSEIR by delivering written notice of appeal to the Director of Planning and Development Services within fifteen calendar days of the Planning Commission's decision. If the fifteenth day falls on a weekend or County holiday, the time to file the appeal shall extend to the next County business day.

3) The Director of Planning and Development Services will agendize consideration of the appeal by the Board of Supervisors within forty-five days of the receipt of the appeal. The Board of Supervisors will consider the appeal at a public meeting and make a determination whether to uphold the appeal in whole or in part or to deny the appeal.

4) Following (1) the expiration of the appeal period without an appeal, (2) denial of any appeal and ratification of the Planning Commission's certification, or (3) certification of the DSEIR by the Board of Supervisors with modifications, the Building Official may issue the grading permit.

5) Upon issuance of the grading permit, the Planning Director shall cause a Notice of Determination to be filed with the County Clerk.

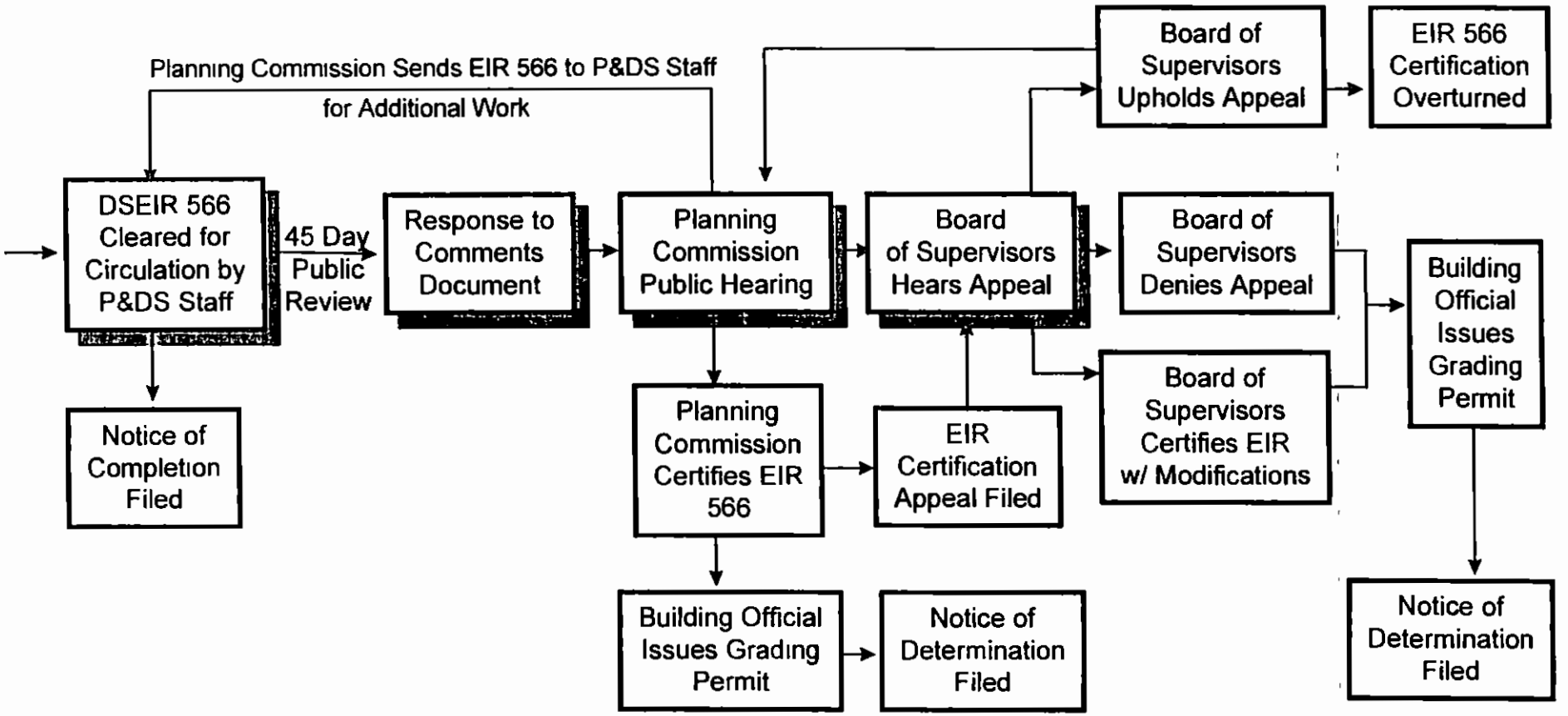
Staff is currently drafting a comprehensive revision to the County Environmental Analysis Procedures which will incorporate the provisions of Public Resources Code Section 21161.

COMPLIANCE WITH CEQA: The recommended action is not a project as defined by CEQA.

APPENDIX B

EIR 566 REVIEW FLOW CHART

Saddleback Meadows
Supplemental EIR 566 Review Procedures



Note. EIR 566 Review Procedures Policy adopted by the Orange County board of Supervisors, November 25, 1997

APPENDIX C

PUBLIC HEARING TRANSCRIPTS
(10/22/97, 11/25/97, 12/3/97, 12/9/97, 12/16/97)

Hearing Before the Board of Supervisors Transcript
October 22, 1997

TRANSCRIPT OF OCTOBER 22, 1997
HEARING BEFORE THE BOARD OF SUPERVISORS
ITEM NO. 1

MADAM CHAIRMAN: Item set for 1:30 would you care to introduce it Mr. Buzas.

MR. BUZAS: Yes. Item No. 1 is public hearing on Saddleback Meadows EIR 566 for the California Quartet Limited Group. This is in District No. 3. In order of presentation today, I'd like to give Ben de Mayo an opportunity to make some opening remarks and then George Britton, Division Manager of the Project Planning will continue the discussion and then Ray Brantley will finish it up from the Staff's presentation.

MADAM CHAIRMAN: Thank you.

BENJAMIN dE MAYO: Yes Madam Chairman and Members of the Commission. You've received correspondence from the law firms representing the applicant, the Ramakrishna Monastery and the St. Michael's Abbey regarding the appropriate process for proceeding with this EIR as well as the letter that I wrote to the Commission. As you'll probably notice every one of us came to a somewhat different conclusion on the methods in which this matter should proceed. Let me try to lay out to the Commission as well as to the audience where I think we are with regard to this project and where the Commission needs to go and what's the remainder of the actions would be at this point. The Environmental Impact Report that was prepared and that is before your Commission today is before you because the County CEQA rules require that your Commission make a recommendation on the adequacy of an EIR before a decisionmaker finally certifies that EIR. In this case, the next approving action is the grading permit which is to be determined by the County Building Official under our Grading Code. So, my conclusion from that is that the Building Official will be the individual who will actually certify the EIR. Your Commission though has the authority and in fact the responsibility to review the EIR and make a recommendation on its adequacy. You are not making a recommendation on the grading permit, that's because the Ordinance does give you any authority over the grading permit, that really is beyond your expertise. Once an EIR were to be approved and certified by the Grading Official in conjunction with the approval of the grading permit, the California Environmental Quality Act provides that a decision on an EIR is appealable to the elected decisionmaking body, in this case, the Board of Supervisors. We have not yet updated our internal CEQA rules to adopt that change in State law, we're in the process of a rather comprehensive amendment of our CEQA procedures, but in order to implement that provision of State law we would anticipate there would be more detail than we propose procedurally on how to handle this matter, we would propose that you order the Building Official to

certify the EIR that that decision would be appealable to the Board of Supervisors. Its interesting State law says that a decision to certify the EIR is appealable it doesn't say whether a decision is appealable if the EIR is not certified. So, if the Building Official found the EIR inadequate, I don't think that the statute provides for an appeal to the Board only if he finds it to be adequate and does certify the EIR. So, procedurally, I believe that's where we are and how we go on this matter from here, but again for your Commission's role is relatively narrow, you are to review the Environmental Impact Report, make your recommendation on its adequacy but you are not reviewing the grading permit. In fact, the grading permit is in process and the Grading Staff is here. That permit has been processed and in fact, I think Staff has some further questions on that permit and have asked the applicant to return so that we don't at this point have a complete record for the Building Official to even act on the grading permit.

MADAM CHAIRMAN: Alright, do any of the Commissioners have any questions of Mr. de Mayo.

COMMISSIONER: Yes I do. Mr de Mayo I still feel like we're in regulatory vertigo here and I don't know which way is up or which way is down, if we're standing or laying down either way. You did clarify that the County Guidelines are currently not consistent with the State but its obvious what the State intent is and we should be going down that path. It would be hard to argue that. But, do we have a procedure in place? We the County, have a procedure in place for a Building Official to hold a public hearing?

BENJAMIN dE MAYO: What we're anticipating doing, our Ordinance does not provide for that in a normal course, it's like when a building permit is issued, or a grading permit is issued an administrative person gets the application, once they find it to comply with all of the appropriate codes, a permit would be issued and that would be it, there would be no hearing. In this case, given the due process considerations of all the interested parties, we are proposing a process whereby all the interested parties would be informed to be given the opportunity to look at all of the materials prior to the Building Official making the determination on the permit, so that they would have an opportunity to provide their input into that. In most cases obviously there are not third parties who are involved, but in this case we do know that there are people who are very interested in that

COMMISSIONER GOACHER: So, there would be a public hearing, or some form of notification hearing for others, or people to come forward and present their arguments?

MR. dE MAYO: Right, maybe this is a good time to go through the procedures that we've worked out.

GEORGE BRITTON: I believe part of my brief presentation may address the issues that your having if that would be okay for me to proceed?

MADAM CHAIRMAN: Please do.

GEORGE BRITTON: Once again, I'm George Britton, Manager of Environmental & Project Planning Services. It's nice to be here with you Commissioners and I'm still waiting to come around on a nice straight forward project -- one of these times I will. I think the Staff Report that our sent out spells out the history with regard to this particular piece of property and the various planning issues and the environmental analysis that have been done. What I'd like to do briefly is just amplify a little bit about what Mr. de Mayo has talked about and particularly to look ahead in the way we see this very unusual process unfolding. The basic question I think that probably a lot of you and certainly within the Staff have been asked "why a new area?" Usually, there is an EIR prepared for a project that covers the entire project, that goes from, if not a zone change, certainly from discretionary use permit, like a use permit, or maybe an Area Plan through the subdivision process and actual project and when we look at a discretionary permit from a CEQA prospective, usually we are looking at that and we are asking, I mean we look at that and we ask ourselves a question in our Environmental Planning Office, does this certified document adequately cover this follow-on part of the overall project and in 95% of the cases, it does. It's a very straight forward process. Of course, in most of those cases there isn't the long time lag between the decision, or the approval of the approval of the project, in this case the 705 unit subdivision, and the implementation by a grading permit and CEQA does require that if there have been changed circumstances between an earlier clearance than we need to go in and re-evaluate and that basically is where we're at now. The world has changed since that earlier EIR was looked at and certified. There are many programs in place that weren't in place then, species that were not of concern then are now and so and so forth. So, what we need and what we're striving to do with the document that's now before you is present a true and complete picture of the environmental consequences of the 705 unit subdivision and its implementation and also the feasibility of the mitigation measures that were identified. Of course, the EIR, while it addresses the development project that residential project overall, what is active now is the grading permit and therefore, you as a Commission, we as the Staff, certainly the various interested parties as participants and observers of the process are in territory that we're just not used to being in. The grading permit is ministerial. That is, there are

standards that the County has adopted, there are engineering practices that are commonly accepted within the profession within the industry and those are the basis upon which the grading permit is judged. That and is the grading permit consistent with that recorded subdivision map. And that engineering and technical analysis will be completed through our normal county process with our engineering and other technical professionals utilizing those frames of reference. After the CEQA, or the necessary, but not sufficient conditions for that analysis is that the CEQA clearance be adequate that be indeed a reflection of the situation in 1997, not the situation in 1980, when the EIR was certified for the project overall. So, for that reason, as Mr. de Mayo has stated that while I think your Commission is relatively familiar with a process where you are looking at an environmental document and a series of potential approvals where some of those approvals go to the Board of Supervisors, you forward your recommendation as to the adequacy of that environment document to the Board for the Board's certification. This is the analogous process except instead of the Board as the decisionmaker it is going to one of the officially designated county decisionmakers. It could be going to the Sheriff, if it were a project where he is the elected share corner where the decisionmaker to undertake a ____. So, this is unusual I think its probably safe to say that in my 20 or so years in the Planning Department, in terms of a project specific for the process is extremely I won't say its unknown, but where we're going into territory we really haven't been in before, I think this is the farthest I've been from other surroundings. With that, what I'd like to do is pass out a hand-out which is on pink paper which identifies what we and the Planning & Development Services Department have identified as the process that we envision taking place from here on out and I think we'll get to Commissioner Goacher's specific question in terms of the sequence of events as we see them. As Mr. de Mayo said the Planning Commission will be considering and making a recommendation on the EIR which is consistent with the County's procedures where the decisionmaking body is other than your Commission. The next step in the process and there's no time line, but the sequence I think is that the Building Official will conduct a public meeting to receive input to provide a forum where he has the decisionmaker who will be utilizing his independent judgment actually be making the decision as to whether the EIR is adequate. So that will occur, we will provide notice of that as we would any other public meeting. Most importantly, we will ensure that notices are mailed to the stakeholders with whom we've been dealing. The Building Official, with regard to the EIR after he's evaluated the materials before you and your recommendation, other input that he's received will either certify the EIR, or he may feel that the EIR does not adequately address the issues. its doesn't meet CEQA in other words. If that's the case, he'll

refer it back to our office to re-do this section, or whatever it is. If he does certify it then the process that Mr. de Mayo alluded to well, once the Building Official has made a decision certainly a decision to certify, we will mail a notice of decision to the interested parties. That is then were the provision in, it should be just CEQA section, not CEQA Guidelines, section 21151(c) comes into play which is that if a none elected body, or individual in a jurisdiction is the certifying body, that certification can be appealed to the elected officials and we've identified that that appeal period appropriately be a 15-day period since that is the time line on other appeals that are identified in our County procedures. Assuming, that the appeal period has run its course, the next decision for the Grading Official would be to make a decision on the project itself. That is to say, using the various technical and engineering parameters he would either approve the grading permit, or if he tells it was lacking from an engineering technical perspective he would refer it back to the applicant for additional studies, or another solution that is appropriate for one of the issues that I don't pretend to understand relating to the way grading and remediation and so forth works and that would be referred back to the applicant to ensure that the plan before it is permitted is such that it meets all the appropriate County standards. Once the approval of the grading permit occurs, then a notice of determination would be filed pursuant to CEQA and any project approval which starts a 30-day clock, if you will, to appeal legally, not appeal administratively, but to challenge the CEQA determination in court. So, that we believe is the process under the present circumstances makes the most sense, we feel that it does maintain the appropriate role for the Building Official in dealing with the ministerial grading permit and at the same time does ensure that all the appropriate CEQA information is before the appropriate official, that is to say, the Grading Official, and should a decision to certify by the Grading Official be appealed that that information would be before the Board of Supervisors as the appeal body so that in both those cases they could exercise independent judgment and come to the appropriate discussion We hope that this frame work will help to put today's hearing on the project into prospective in terms of the broader picture on this very unusual process in which we're, I was going to say mirrored, but that's perhaps too strong a word, this unusual process that we're undertaking. You may find your role uncomfortable dealing with an EIR for a project upon which the basic decision was made a number of years ago and it certainly makes sense that that would be uncomfortable. I think we all feel uncomfortable when we get into strange situations and then obviously the various stakeholders have strong feelings about what is appropriate for this piece of property. I dare say we probably had as much testimony about, if we could measure testimony per acre on the County, this may be at the top of the list. There are some very significant

issues, there are some very strong feelings or very legitimate feelings on the part of the project proponents on a part of the other neighbors and other stakeholders. But I think it is important that you as a Commission are aware of and as comfortable as possible with the role of this particular document and the broader project approval and the implementation via the active grading permit. With that ...

MADAM-CHAIRMAN: May we ask you some questions?

GEORGE BRITTON: Yes ma'am. I was gonna say with that rather rambling, I'll stop.

COMMISSIONER: I've got a couple of questions.

GEORGE BRITTON: Certainly

COMMISSIONER: Kind of between the legal and descriptive sort of area now. We're being asked to make a decision in terms of recommending this EIR for a project. The project from your description apparently is not the grading permit but it's the whole project.

GEORGE BRITTON: That's correct.

COMMISSIONER: Yet, this EIR is suppose to suffice as an environmental impact report which the Building Official will use to show a grading permit. Is that correct?

GEORGE BRITTON: That's correct.

COMMISSIONER: Has the grading permit been analyzed in here at all?

GEORGE BRITTON: No.

COMMISSIONER: We don't know anything about whether . .

GEORGE BRITTON: The grading permit itself has not, the broad extent of grading and other impacts have been.

COMMISSIONER: Okay. We don't know where the fill is gonna be necessary? Where buttressing will take place if landslides, yet, we're being asked to make a recommendation to certify this EIR for a Building Official to make a decision on a grading permit. I don't see how we can do that, when the information in here doesn't directly relate to that grading permit. We don't have the grading permit analyzed in here

GEORGE BRITTON: That's right. That's the dilemma and it would be same for the building permit. I think the objective of this analysis to identify the envelope of impacts.

COMMISSIONER: Okay That's one question I have. The second question Mr. de Mayo will probably be answering. I assume to certify, to recommend certification of this EIR we have to agree with the statement of overriding conditions? statement of overriding considerations?

MR. dE MAYO: You won't be making those so, in terms of weighing those are sufficient overrides, you don't have to make that determination. I mean if can give your input on those, you could say that you don't believe that they are adequate to override or you believe that they are, but I don't think that's necessary because what your doing is your recommending on the EIR as a whole whether or not the discussion, the explanation of _____ is adequate where the mitigation measures that are done are in fact feasible and are adequate and if the project requires overriding consideration findings to be made, those would be the conclusions . .

COMMISSIONER: That's more than I want to know Sir. Is there any criteria for determining whether or not the statement of overriding considerations is adequate something that we should weigh in the law, is there anything there?

MR. dE MAYO: No, there's always, that's always very much of a judgment area because you have to decide whether, or the decisiomaker has to decide when making an override findings that something really is the solution for the benefit with the environmental impact of the project should be may happen despite the fact that because these other conditions override those kinds of environmental part.

MADAM CHAIRMAN: Did you have question?

COMMISSIONER: I do, but as a Junior Member I was waiting for everyone else to go first if you wish.

MADAM CHAIRMAN: Alright, my question is alright if we should determine that in our judgment the EIR is satisfactory subsequent to the findings of the Building Officer are we also in a position then to recommend that we prefer one of the alternate plans to that Building Official and that that Building Official then has the job of determining if that's the alternate plan that we would recommend in turn to the Board of Supervisors, or how does that fall into place?

MR. dE MAYO: Right. I think you have the authority. The Board has given you the authority as Planning Managers generally to give advise to the Board. I don't believe that kind of direction should your Commission want to give that kind of direction again. I think that is separate from your determination given the condition of the EIR itself. If you say we really like alternative X and we really think that that alternative should be pursued, that alternative really doesn't, that recommendation really isn't to the Building Official because that Official only has authority over the grading permit.

MADAM CHAIRMAN: It doesn't have to go along with this . .

MR. dE MAYO: Right. It can go along and you can make the recommendation I think they have to be prepared to forward that recommendation on to the Board of Supervisors, you know, if you recommend that the zone change should occur to implement one of the other alternatives, or whatever other kinds of land use approvals be necessary for the other alternatives, that's within your authority to do. Again, separately from your recommendation on the EIR.

MADAM CHAIRMAN: How often does this separation on our job occurs, do you think? Is this going to become more frequent?

MR. dE MAYO: Well, hopefully not because most projects you get, the impacts of this project would have been done a year ago, you had the recommendation of the project and the recommendation of the EIRs at the same time -- so, you have that ability. There are projects that you get, usually comes up in the context with public projects, you know, something like a roadway project or something that the County is doing where you might say here' our determination on the EIR, here's our recommendation on the EIR, but here's our recommendation on the project itself. That usually the context in which that kind of a dichotomy occurs.

GEORGE BRITTON: I might just add very briefly to that and I should have looked it up in the Zoning Code or I should be more familiar but I believe in the Zoning Code where the Planning Commission's authority and responsibilities are spelled-out. I believe the basic role of your Commission is as essentially a land use advisory to the Board of Supervisors and that if there is a particular issue, or type of issue that you feel is appropriate for attention by the Board or you feel would be appropriate to make here to make your position known, I think that's something that our department would certainly forward that as the other part of the Planning Agency, but I think separate from the specifics of this EIR if you feel there's a better mousetrap so to speak, I certainly think its within your purview to pass that type of recommendation to the Board of Supervisors and I agree certainly with Mr. de Mayo that that is the appropriate body to make a change. The Grading Official is, if anything, more focused in his responsibilities than yours.

MADAM CHAIRMAN: I think we would all agree he has the technical expertise for that.

COMMISSIONER: Its true. Thank you I want to agree with the point Commissioner Moody was making pertaining to the specificity on this particular application. I continue to be troubled by and before I render an opinion on this subject I need to hear more from Mr Brantley on that and possibly the applicant and their counsel too. The basis of it is that if you would like to apply and secure a grading permit in the County you have to provide a list of information and you have to be certified by

experts before that can be in the form of permit. If you wish to come in for a site development permit and come before the Planning Commission you have to make application, pay your fees, provide a laundry list of material, I think its A through M that's specified in the Code and without that you don't have a project to that point. Using that as my point of illustration it seems as though we have not made an application, filed one with this project yet, for the EIR to be prepared... That being 40 scale drawings, the very detailed geotechnical work and so forth for a grading permit. It would seem to me, again I rely on the technical expertise of our Staff and legal counsel that what we're dealing with here is programmed EIR and not a project level EIR. One which establishes that same criteria that you've discussed so frequently rather than the actual detail. So, and if we go through the process, please enlighten me and make me comfortable on this because I greatly need it. Also, I think there is a feeling that I'm hearing out on the street that whoever the ultimate body is that issues the certification on the EIR that they can then go forward with the grading permit in next number of weeks or months as this process lays out, the applicant gets the permit and off they go. I believe that's incorrect and I think that needs to be put into the record as well that possibly the EIR needs to be amended to include the decisionmaking process that would require them to go through the 404, 1603, on and on and on, there is a list of things that has to be done before grading will ever be accomplished there that will likely involve nine months to two years and I think the fear needs to be taken out of this. Lastly, this is more for legal counsel, if I could, Ben, I'm troubled as I read the document that we're locked into a record map The record map is but paper. The impacts, the mitigation for many of the impacts are kind of turned away, the potential for mitigation is turned away because it hits the resisting wall of there's a record map. This is nothing more than paper as I view it. I need enlightenment as to whether that is true or my presumption is incorrect.

MR. dE MAYO: Well, if I might, the thing that I'd like to do with that whole last question is that we always have people who want to testify, lawyers on all sides of this issue, probably, maybe let them also refine those questions as they have them because I don't think any of us agree on a lot of this stuff and then maybe best that me and Staff come back and give our opinions after hearing everybody else's arguments on those points because I think those are all the issues that are coming up. Specifically, with regard to that I think that the EIR attempted to and again, this is something your Commission has to analyze in a way for yourselves that the EIR attempted to look at the environmental impacts as they occur given the fact that "yes," the map is only a map recorded map at this point I think several responses to some of the comments were, well this is the condition is that there is a recorded

map and so this is the frame work within which we were working right now and I believe the attempt is also made to analyze the environmental impacts notwithstanding that, but I think probably we're gonna hear a lot of that testimony, I think, judging by the correspondence we received and my conversations with people for various parties so I might be well to listen to all those arguments and then let us give our input after that.

COMMISSIONER: Madam Chairman, one last procedural question and then I'm done gentlemen. I've got a number of issues with the document that I don't know if procedurally the Commission should deal with what it believes the public should have seen first, or develop around the public's got it, and we all start the hearing then, where do we go with this. Well, I do not want to hold up the process and I do not want the applicant to be denied their right as well.

MR. de MAYO: If I understand the question, I think obviously you have this now in a procedural state that it's been and in the condition that the draft is in. You know particularly as to the grading issues and I know these questions because of what documentation was available and is currently available and all that and again I think maybe after the testimony we should go into those kind of individual things that you want. That might be the appropriate time to do it.

MADAM CHAIRMAN: Any other questions? Mr. Brantley, I guess its your turn.

RAY BRANTLEY: Good afternoon members of the Commission. One thing is certain about this project and that is that it really gets a lot of people involved in expressing their opinion about it. Before I get into the nitty-gritty details of my report I'd like to state that we've given you a number of supplemental materials. Yesterday, we gave you a revised draft resolution. This was in the form of a memo from Mr Britton to the Planning Commission and in that resolution it replaces the resolution that you have in the original package which was a resolution from the Planning Commission with regard to certification. In addition, which sometimes occurs, we noted in a number of instances our corrections that were anticipated or somehow clerically missed and these are in the form of the errata sheet to the response to comments document which we circulated to you this afternoon. With regard to those Mr. Greenman and my staff will be able to respond to those in the way of questions from the Commission. The Staff Report which you have is very packed with information with regard to the CEQA process, with regard to the background of this particular project and there's at least three of you were aware when you first saw this project, you had gone through a whole litany of public hearings on a form reiteration of another project on the same site last year. It has been around since 1978, so its been here along time In the way of a Staff presentation, I will not go and try to re-read everything

that I've included in the Staff Report, I would simply like to go into some of the highlights. I don't think that its necessary if the Planning Commission wants me to explain the whole CEQA process I'll be glad to do so, but I don't think that's necessary after what Mr. Britton and Mr. de Mayo have previously given you. I'd like to begin with that section of the report which is III, that is the whole methodology of this report. The first point I'd like to simply make is that this EIR appears from previous EIRs in the document, in the report we've mentioned, six former EIRs that it tiers from so that information from those documents are incorporated into this document. As Mr. Goacher had requested, with regard to what type of EIR this is, it would or could be categorized as a programmed EIR. In other words, its for the whole project, but its not to the point that all the information is there as it would be for a project level EIR. So, there are six documents that its tiered from, it is the whole methodology is taken from the standpoint of 705 unit manufacturered housing residential projects on 222 acres. The fact that it was initiated by a grading permit is information known, but it is not the only consideration as Mr. Britton indicated so that the project in the EIR is the building of 705 units. With regard to things that are contained in the EIR in compliance with State law, those two areas which were found not to have significance being population and energy, the EIR did not address these at all. We simply stated that they were not significant, they have not come out through the scoping process or the initial study, therefore, they had not come along. All other areas on the checklist were analyzed in the document. With regard to public review, a total of 26 letters and responses were received, these particular letters and responses were and comments were chalked full of issues and the resulting document is much thicker as you've noticed from the response to comments document then many times when you receive 75 or 100 comments, so if you go strictly by the number of comments, I think its misleading, the content of the comments is significant. The response to comments document we've included corrections to the EIR, this is the direct result of the public review process and this resulted in some errors on the part of Staff and the consultants in the document. These were corrected in the response to comments document. These have to do with issues dealing with geology primarily. The errata sheet which I've alluded to before contains five conditions that should be added to the response to comments document as a result of the public review. Now, in the way of environmental issues, I will go through them very quickly. The first is grading and in the way of a summary there were 13 of these major issues. The first is grading. There was some concern expressed about whether or not there was sufficient information in the document. There were over 200 borings on this site. Again, focus on the fact that we're looking at the 705 unit development project. Is this sufficient information

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to give us the information necessary to make a decision on whether or not environmental document is correct, or adequate. With regard to grading, the total amount of grading is eleven million, five hundred thousand cubic yards. Of this amount, 8.9 million cubic yards are concerned with remedial grading, 71% of the total is remedial grading, the rest is conventional grading. Land use compatibility, the EIR identifies the fact that we could not find the project compatible with the Abbey, the Monastery and O'Neill Park and that's primarily because of the types of uses. The park is a primarily wilderness type setting, the Monastery and the Abbey are contemplative atmospheres. If the project is developed we that this is an unavoidable adverse impact and therefore we've included a statement of overriding consideration and this is an unavoidable adverse impact. Wildlife corridor, I've mentioned that, the Oak Woodlands, there are almost 300 oak trees on the site, if the project is developed 95 plus percentage of these will be eliminated therefore, that's an unavoidable adverse impact. Hydrology is impacted however, we don't see that as an unavoidable adverse impact. Traffic and circulation is impacted however, we do see that a number of mitigation are said and included which could reduce those impacts. Air quality and noise, air quality, we're in the South Coast Air Basin as I mentioned on another project. This is unattainment basin and therefore, any large project is going to cumulatively result in unavoidable adverse impacts. With regard to public services, education was an area that had authority came up as a major issue raised by a number of persons. We've included mitigation measures which we feel comply with the State law and school district requirements. The issue with regard to the selection in hiring is not an environmental issue but it was something that was raised over and over again. The selection occurred on the part of the applicant. However, the consulting firm was on our list of any consultants. Its fine with our standards, the County concurred in that an agreement whereby the EIR management preparation for the documentation was all managed by the County and therefore, we think that that adequately meets State law as well as County procedures. One major issue that came up was the issue of referrals of mitigations and that's because here, the initiating action was a grading permit application and a number of persons indicated that they felt that if you were conditioning mitigating impacts in various categories prior to issuance of a grading permit and in essence your going beyond the scope of the project in order to mitigate and therefore your deferring the litigation. Again, in conducting the entire CEQA review we're looking at the project as built, 705 units, if this were a zone change or a general plan amendment how would we handle it? The grading permit is the time that we would normally require most of these conditions as well as mitigation measures therefore, we felt that they were adequate as well as meeting County general procedures Again, related to that with

regard to whether or not adequate information is available, or was available through the entire planning process as well as preparation of the EIR, we have with us today, Mr. Pat Stanton, who is the Manager of Subdivision & Grading Services Division, who will be able to speak to that issue. With regard to alternatives, the EIR contains five alternatives some of which you've seen before, some of which are always in every project. One of course is the "no development, no project alternative," and these are discussed in detail in the report as well as the criteria by which they are based. With regard to unavoidable adverse impacts, let me just list the ones that we've identified through this process, one was the issue of land use compatibility, we thought that this an unavoidable adverse impact, a major land form alteration, even the grading, we can always mitigate grading and landslides and things of this nature. The actual alteration of the land form we felt was an unavoidable adverse impact. Cumulative, air quality impacts was identified as well as five biological resource impacts. These again are oak, sycamore wetlands, coastal sage scrub, fermal ponds, wildlife corridor linkages and the NCCP program. Not only the area of aesthetics we thought are weak, we identified aesthetic, the visual impacts from O'Neill Park, from the Abbey as well as the Ramakrishna Monastery as aesthetic impacts which were unavoidable adverse impacts. With regard to, these are the unavoidable adverse impacts. In the CEQA process in terms of the decisiomaker identifying these unavoidable adverse impacts on one side, the other side which is the balancing act of CEQA is the issue of public manifest. We were able to identify a number of public benefits, these were elimination of major geotechnical instability on the project site, regional drainage improvements, increased affordable housing opportunities which is probably the largest and greatest potential public benefit to this project, improvements to El Toro Road and participation and major road programs, development of major recreational linkages in the form of trails and dedication of open space to the County. With that, I shall be happy to respond to any questions. If I don't have the answer there are a number of technical experts here that we can call on, the consultants, the creators of the EIR are here, we have some County experts are here and other technical experts. If not.

MADAM CHAIRMAN: Gentlemen, any questions?

COMMISSIONER: Frankly, I still have one question on the level of detail on this particular project. If the decisiommaking body does not find that the level of specificity is such that it meets the program threshold, or excuse me the project level threshold, can it adopted without going back and rewriting and recirculating and so forth at the program level?

MR. de MAYO: That's a good question there are several lawyers here who can possibly answer that. I'd have to think about that.

COMMISSIONER: I did have one more thing on the other question about the record map and its effect on precluding litigation from going farther than it might otherwise.

MR. BRANTLEY: Other than the fact that Mr. Britton alluded to, this is a difficult project. It is uncharted territory for me. It is unique from the standpoint that we have a recorded map and yet we're going back and analyzing and reanalyzing it. I rely solely upon County Counsel in terms of that so I can't express an opinion on that.

COMMISSIONER: I'm going to keep all these questions and we'll briefly answer them after . . .

MADAM CHAIRMAN: I have a question? Do the Commissioners wish to hear from the technical grading experts at this time?

COMMISSIONER: I think it might be more appropriate to wait and let them answer questions that may come up during discussion.

MADAM CHAIRMAN: Very well. Okay. Alright, thank you Mr. Brantley very much. At this time then I will open the public hearing and those who have signed up please come forward. Oh, I'm sorry the Applicant has a turn first. My apologies.

PIKE OLIVER: Thank you Madam Chairman.

MADAM CHAIRMAN: I knew I was going let you speak but I . .

PIKE OLIVER: Thank you Madam Chairman and Members of the Commission once again my name is Pike Oliver with TPG Management here on behalf of California Quartet, the ownership of the Saddleback Meadows property. My address is 1601 Dove Street, Newport Beach I have just a couple of over view comments that I'd like to offer than I'd like ask our counsel, Bill Ross, if he can have the opportunity to deal with some of the legal points that have come up and we're evaluating the procedure outlined on the pink sheet. We've just seen this as of this afternoon and I he will have completed his legal analysis while I buy a few minutes of time here on some overview comments. I just really want to speak to four things. One of them is what the issue is that's before you today and our view on that and then talk about some of the background in terms of timing and all and the things that we've done previously which I think you recall, but I'd just like to kind of put that in context so that you can consider that as you think about what's before you today and then also to share with you one document that I think we shared before in terms of grading easement that exists on the property just

so you understand the context in which we're looking at the grading permit. The first point is that maybe it's easier to talk about what we're not dealing with and that is that we're not dealing with any land use changes on this property, we're dealing in the context of existing land use designation and the recorded final map that exists on the property, Bill Ross will have some additional comments on what that map means particularly as it relates to the issue that just came up in terms of the question of mitigation and what the parameters are for litigation. We did deal with land use changes and proposed some in the past and you'll recall that I first came before this Commission on this project nearly three years ago in January of 1995 and at that time, the issue that was being debated was whether in fact an EIR should be prepared prior to consideration of a grading permit application which is kind of, we're back to that point. We've completed that EIR, but as you'll remember what happened at that time is that we agreed to set aside the question of whether in fact an EIR should be prepared which was what was being debated and we all agreed, certainly we did on behalf of the owner and certainly I personally felt that it was important to consider alternatives to the existing recorded map and that there the possibility, the good possibility that we could come up with some alternatives that would be financially viable, and that would be environmentally superior as compared to the subdivision that has been approved for this property and you recall that we worked through the Spring and that we obtained input from as many parties as we could and in the Summer of 95 we brought forward to the Staff a revised site development plan application which we later turned into a rezoning application and tentative map submittal and brought forward and formally followed the process through the Staff and that came to your Commission beginning in the Spring of last year, of 1996, and while this Commission was not able to reach consensus on precise loting that should go forward and be recommended forward to the Board of Supervisors, it did reach agreement on a development area, one which has been recommended by the Staff and in fact, I think the only difference between what the Staff had recommended and what we had recommended at that point was some 19 or 20 lots, if I recall correctly, and this Commission did recommend that development area forward to the Board unfortunately we were not able, the Board was not able to reach a conclusion, reach a majority that would have allowed one of those alternatives to go forward. That left us then back where we had been and we determined instead of debating the point of whether an EIR should be prepared in conjunction with going forward with the grading permit application under the existing land use designations that we would go ahead and do that that it would take just as much time and so that brings us to where we are now. My only point in mentioning that is that we did that voluntarily at that time. The owners at our recommendation as managers expended

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tremendous sums of money, over a million dollars, in that examination of alternatives, in good faith and we could not unfortunately get to a point of where we could go forward with an alternative so, we are left with the existing designation and that is what we are pursuing and it is our intent to pursue that at this point and I just mention all that to remind your Commission of the incredible time and expense and has you know in the business of land ownership time is money as much as correct expenditures are money that has gone into this and I ask that whatever you do you decide today, decide now what your recommendation is to whomever it is and move us forward and that as Bill will comment further and as I'm sure you'll hear from County Staff, the level of detail that has been prepared in conjunction with this analysis goes far beyond anything that has ever been done in a similar project in the history of the County and therefore, the purposes of environmental review is sufficient and adequate, more than adequate. So, finally, I just want to remind the Commission of the fact that in conjunction with the property and the extensive work that has been done in the past, there is an easement that exists that was executed by St. Michael's Abbey back in 1986 that is a recorded easement that applies to the property and its still in effect and provides for grading easement off the property on that property that is required to implement this project because I think that there has been some question to the fact whether the easements were in place to even allow this project to go forward and I'm here to tell you today that they are, they are recorded and they are viable, it is a viable legal document. So, I will leave with your Clerk copies of that easement so that you can have it for the record. With that then, if I could have Bill Ross come forward. Thank you very much.

MADAM CHAIRMAN: Thank you for your comments.

WILLIAM D. ROSS: Good afternoon Commission Members. My name is William D. Ross, my business address is 520 South Grand, Suite 300, Los Angeles, California I am the counsel for the applicant in matter. I will be as direct and succinct to the point as I possibly can be. First of all, the project that is before you I think we have to take in the context of the action that took place a year ago, exactly on this date where the proposal for development was before the Board and was not approved. Necessarily as a land use proposal, alternatives for the project, the applicant is forced to comply with what's known as the Hamilton Bank rule of the United States Supreme Court. We must pursue all other reasonable alternatives for development of the property. That reasonable development for the property is the recorded tract, that's one thing that had to be pursued, in order to implement that we were informed by County Staff we needed a grading permit and I would note that there is a great deal of colloquy about the difference between a grading permit application and the grading permit In fact, it

you look at those provisions in the County Code its a continual, the grading permit can only be obtained if there's a grading permit application. Undoubtedly, if an EIR were not somehow tied or referenced to a grading permit application, but rather the permit, the criticism would be you impermissibly segmented the project. The EIR should have been done before the application even came in not at the time that the Grading Official actually made the decision on the grading permit. One point we do agree with County Staff on is that under almost all circumstances the grading permit is a ministerial activity, meaning it is not discretionary. Then the logical question comes, how do we get to the point of the EIR? I would phrase it this way, can the Director of Planning & Development require the preparation of the EIR? My unqualified answer to that would be "yes." The reason is that it is consistent with the provisions of the Specific Plan, we reference those. Its consistent with the intent of CEQA. It has been over ten years since the original environmental analysis on the tract's implementation has come down, he as the reviewing County official has the continuing obligation under CEQA both from the text, the guidelines and case law to call for that EIR exactly as he did. As the applicant though, we must follow the procedure and the dictate of the County in processing that EIR and I'm afraid that's where we part ways here. So, the answer is "yes," the Planning Director has the inherent authority and the ability to require the EIR and as I'll develop later, I think the level of this EIR in conjunction with the documents that incorporate his extensive and I think I have some experience in other County projects in comparison to other County projects of far greater intensity of use, that go way beyond the level of analysis there. My problem is that this fits within the adage of a recent quote by a recent appointee to the State Supreme Court, Janice Brown, "no good deed goes unpunished." If you want to look it up -- 14 Cal 4th at 1198 and the reason is the whole purpose of CEQA is to get current environmental information on a project. We again agree with County Staff, the project here is unique. The recorded tract, from the beginning, I am aware of no procedure under the Subdivision Map Act to go back and explore the recorded tract map. That legally divides the property once it's recorded after final approval. Case authority for the is the Hartford Indemnity case. That has legal significance beyond anything that normally would come before this body such as a CUP, or tentative tract map, in terms of its analysis. So, again we're dealing with a highbred situation, but I'm afraid again we have problems with this procedure unless there's either a waiver by all opposition or if we think more practically a ratification by the County Board as to this procedure. Why, the County Board of Supervisors is the agency that originally enacted the provisions of the County Code which now are deficient. The legal term is "the mode is the measure of power." In other words, there has to be a provision in the Code that says this

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official or this body can do this and there should be an appeal mechanism there to make sure that it complies with constitutional due process. Well, that isn't here, but the Board can do that by having this procedure brought before it and having it ratified. I don't see anyway that every potential member of the public could waive the right to challenge this procedure before this body and before the Building Official. My problem is if you look at the County Code provisions for the Building Official, he does not have the authority to review environmental documents and the appeal of his decision goes to the Grading Appeal Board and its final, not the Board of Supervisors. I understand the provisions of Public Resources Code section 21151(c). Certainly, there has to be an integration there, but I don't think that that's a decision for Staff and the applicant does not wish to be in the position where error is invited into the procedure for review of this document. So, that we again expend all the time, resources, financial and otherwise to get to a point where there is a decision yet to have that decision be subject to a very legitimate legal challenge as to the procedure. So, we think that the appropriate way to handle this is to have the Board review this procedure almost immediately and ratify it and then we're fine with it, but otherwise we are the ones that are at risk. We have to go forward with the process, we don't think that one consistent with applicable law about timely processing in pursuing our administrative remedies under the United States Supreme Court case of Hamilton Bank, this is a legitimate land use designation for this property. You know people disagree as to whether they want it or not I'm not commenting on that. I can like or dislike a particular development, but this recorded tract has legal significance beyond that of an approval again, an example would be of a tentative tract map, or a conditional use permit. We've time and time again brought before this Commission, we have expended an awful lot of money effectuating physical improvements in the ground and infrastructure based on the intensity of density of that map. That makes this unique. We ripped that out, among other things, the people across the road do not have service. So there's a problem to the area. So it is truly legally significant. So, we think the procedure at the outset should be addressed. I don't know if this is the appropriate body, but I also quite frankly feel that's awkward for both myself and opponent's counsel to be placed in a position of saying "this is the procedure which the County should follow." We believe in the first instance that resides with the County. Again, we will do whatever the County says is appropriate, but we would like to have the procedure be in a position where its at least legally defensible, so if we go through the process that the procedure is not the basis that we are told to start over again. I think its applicable that this should be done immediately so that there's not the claim that can be advanced by us and we are the ones that would make it an undue administrative delay and with

all do respect I think this can be accomplished quite quickly. I'd like to comment briefly on some questions on the EIR in question. The specific issues on 404 1603 mitigation were raised by you Commissioner, they are in the document, and their in it at a level of detail that is customary for this intensity of use, maybe beyond it but also in a manner where they are coordinated with their discretionary aspects as they are with other development in the County. In other words, its recognized that to the extent that they have discretionary ability to effect the footprint of development or the envelope that conceded. They have there authority and it could impact the way this project goes down. As to the issue of project alternatives. This is one of these things which I call a "yeah but" argument. First of all the project here is the recorded tract which has very limited flexibility in terms of review because of the legal status I just mentioned. It is an authorized density of development for this project. With all due respect if there was something else that was proposed and I would make reference to I believe a December 5, 1996 hearing of the Board of Supervisors, it would be a reversion to acreage. It was proposed by then Supervisor Stanton, if I recall, and it failed. That is the only discretionary action that I am aware of that would go toward mitigating or at all contradicting the legal status of the division of the property and even that would be suspect because before that would take place there is a procedure whereby financial remuneration has to be made to the holder of the recorded tract for the improvements that are effected as a result of that previous division of the real property. So, I think that's appropo to the discussion here about "yes, again this EIR is authorized, yes, it's appropriate for this method, yes, this is a highbred but again the procedure has to be refined so that I think there is comfort by all the participants or stakeholders, as I believe was mentioned, before this goes forward. But again, I believe the level of detail here, an alternative is significant. Please remember this incorporates EIR 561 which contains that very analysis. So, "yes," its a limited project, but we incorporated that by reference, why? We feel that's appropriate because that's the type of scope of analysis that accurately summarizes where this project is. We went through that. We recognized that of the proposed residential development from this property and those alternatives were considered then. They were rejected by the Board for whatever reasons we don't know. But for Hamilton Bank, we have to come back with this, we have to pursue this as a legal alternative for this development. Again, we think our principle argument here is with procedure and I would reference the Brown Act. This is only before you as a recommendation to whatever the official is. So that's the action we believe should be considered by your Honorable Commission. That necessarily concerns the procedure, from our point of view, we would rather be conservative and safe and have this thing validated as a method of decision

tree if that's the way you look at it. To fill in the gaps of the lack of provisions in the County Code so that this procedural challenge can be taken away and again, I view this on the basis that practically, I don't see how you can secure waivers or consent to this procedure by every possible member of the public. We do not wish to be subjected to that writ. On the manner of focus of this EIR, I think the way its characterized by Staff and I think about how it would also be characterized by the Planning Director, if he were here, would be exactly as I said initially, is he is required as a matter of oversight to keep looking at a project approval or an authorization to ensure that there aren't any other environmental affects on the project or defects in terms of mitigation would be another way to say it. We don't want to be in a position where we're challenged on that basis. Of course, we believe that the Director has this authority and I think the one case that I can best point out that would be analogous would be when the Downtown Development Plan for the City and County of San Francisco was approved, there was a challenge to that plan, it was very extensive. It involved, as I recall several hundred thousand square feet of commercial office space and the implementation of obviously several major office buildings. The environmental challenge when forward. They never sought equitable relief to enjoin that construction and it eventually came back that there had to be a further environmental review. One of the reasons advanced by the Court was because of the time frame involved situations had changed. Traffic density had changed, the floor area ratio had changed as I recall and they went ahead notwithstanding that the development had been approved for specific sites and in some instances even built, required the preparation of another EIR I think that's exactly the kind of action that the Planning Director took here is to meet that type of continuing obligation under CEQA. So, in summarization, quite frankly we think that the procedure, it may be valid. If it is, fine. But we think it should be the subject of a ratify action by the Board of Supervisors now that would be the most efficient use of time rather than going through the whole process now having the logic tree on the pink sheet followed only to find out that the procedures impacted. I think with that, I think I've hit all the points that I believe are applicable to your decision now based on what's before you under the Brown Act. If there are any questions, I'd attempt to answer them.

MADAM CHAIRMAN: Do you have any questions. Thank you very much Mr. Ross. Will anyone else be speaking for the applicant? In that case, I will now open the public hearing and those of you who had signed up to speak before us if you are representing a group, I will give you ten minutes time. If you are speaking as an individual I would ask you to confine your remarks to a five minute interval and if you need extra time then ask for it, but hopefully you can keep things to that

period of time and I also would ask you if someone else has made all the points that you wanted to make only add your additional points that have not been made, you can always say "I agree with the remarks made by whomever made those remarks that you agree with them," and please come forward.

ED CONNOR: Thank you Madam Chairman. My name is Ed Connor. I addressed the Commission before on a related matter pertaining to this project. In theory I can't resist a certain comment though I wanted to save this, but I'm gonna use it now. I told Ben last week that we weren't in Kansas anymore and now after what I've heard today and turn the pink sheet, we're not in Oz anymore. We are way beyond, we're in the next galaxy that was in the Times this morning. What Mr Ross did during his entire presentation was he raised question, after question, after question, after issue, after issue, after issue and what does that tell us? That tell's us that we are not prepared to proceed today with all those questions left unanswered. He has proposed an entirely knew procedure. Don't go with the Building Official, don't go down the food chain, go up the food chain to the Board of Supervisors. He has cited no authority for this, nobody really has the answer to what we should do on this. We are making this up as we go along here today. We don't run our businesses that way, we don't run our lives that way and we should not run this project that way. Now, I'd like to indicate that I'll be addressing my remarks on behalf of the Vedanta Society. If I run past ten minutes and I don't expect to, I'll ask Richard Jennings who is going to speak to yield his time to me, but . . .

MADAM CHAIRMAN: We will allow you extra time, you are representing an organization.

ED CONNOR: Thank you very much Madam Chairman. There are three things that I would like to do I'd like to thank the County and the Staff and then after I do that, I'd like to roundly criticize the County and Staff and thirdly, I would like the ask the County and the Staff for a favor. I'd like to issue a challenge that we all try to do the right thing here today. I think that the County deserves to be thanked. They did require a substantive EIR on this project. I praise the Lord for that, that was the correct decision to make. I think they made that decision twice however, I think it was done once in 94 and again in 96 and I didn't hear Mr. Oliver address that point and I heard that there was some mention about unreasonable Commissioner delay and I'd like to hear from Staff, cause we tried to get these documents yesterday and we could not get them from Staff cause nobody was around to get them, not that they we're refusing to give it to us, just that we couldn't get them. But I saw in the Staff Report on page 5 and you should have that, Item 1, it talks about April 94 grading permit application submitted for Phase 1 grading -- 98 acres. August 94 Initial Study complete. Environmental Impact Report determination letter issued by County to Appellant. So what they told the applicant in

1994 was you have to do an EIR, what did the applicant do? they appealed that. Then what happened? There was an appeal hearing, it was postponed and then the applicant withdrew its appeal, they backed down and they decided to go in a different direction which was to come in with a 318-unit proposal. So, there's been no unreasonable delay here by the County. The County told them three years ago to do a subsequent EIR, they didn't want to do it then, they choose to appeal it, they abandoned their appeal, they have waived and estopped any complaint about where they are now in this process because the County correctly told them. Why did they tell them that? Because 15 years had gone by since the prior EIR had been done and all sorts of things in the world had changed as we heard Mr. Britton today and so a correct decision was made, but the problem is that ever since then, the County has been running away from that decision to require that substantive EIR. They've not been standing up to, not been bellying up to the bar with that decision and I'll talk about that but yes they need to be commended. Now I know that people like me get up here and all too often we wave our figures at you and we complain and we criticize and we shout you down and we moan and groan and we tell you everything you've done wrong and we rarely ever thank you and everyone of you, every Commissioner that sits here today and every Staff Member here does their job to varying degrees out of a sense of civic pride, out of the sense of civic duty, you do this to serve the public. That's why you do it and we stand up here and we're used to complaining to you cause that's what I guess our job is, what the public is, their suppose to complain to you about what you do for us, but sometimes I believe that the County puts itself in a position to be legitimately criticized and when the County starts hunkering down and starts hiding documents like grading plans and sales reports and refuses to let us see those and refuses our begging, our pleading, our imploring to let us see those, then we start getting suspicious and we start making these charges, who's pocket are they in? and what are they doing? and, who do they think they are? and we act like human beings because we're not allowed into the process, we're not allowed to see the project and of course we get critical and that's what brings us here today to ask you to let us in on this project and the great irony of this, is that it's not just the public that's been kept out of this, the Planning Commission has not been allowed to even see the project that it's being asked to certify an EIR in support of. You've not been shown the grading plans, you've not been shown the report. What you heard this morning when we started, they don't even exist and yet your being told "approve an EIR in support of issuing the building permit," never before in the history of this County has that ever happened. I heard a Commissioner ask "how often will this happen again?" it better not happen anymore and we should put a stop to it today and I ask you to do the right thing by doing three

things. Continue this hearing until three things occur: (1) Mr. de Mayo has been given more time to answer all the questions that have been raised by the public, by the applicant, by the Commission, from Staff, give more time; (2) continue this hearing until this Commission is allowed to see the project, until the grading plans are done and the grading plan review reports are in and you can get your hands around that, continue this decision; and, (3) finally, continue it until the document, weigh the document, which we've now been told for the first time ever is a programmed EIR, not a project EIR which we long suspected. Continue it until that document for once addresses the project for which it was prepared, the grading application, the grading permit, it doesn't address it. The question was asked of Mr. Britton, he said "no." Mr. Moody, I believe, asked does it address the grading permit? No, it doesn't. What are we here for today? Now, let me go back to Point No. 1. I have known Ben de Mayo for many, many years, I have always known him to do the right, the decent, the honest thing. I don't always agree with his decision. We sometimes are at logger heads. I believe he is trying to do the right thing this time. I think he's wrong. I don't think that this procedure where you allow a Building Official to certify an EIR is well thought-out and maybe that's the way your gonna go and maybe that's the right thing to do, but do any of us today know that's the right thing to do? I raised questions in some letters last week and as a result, this whole thing has gone topsy-turvy. I don't believe that we have had sufficient time for County Counsel to look at this question and decide is this the right thing to do. Do we know whether there's one published opinion in the State of California would support allowing a Building Official to certify an EIR. You know, we had the great distinction in this County being the only one's to go into a Chapter 9 bankruptcy. Let's not be the first ones to set a new precedent of changing CEQA and turning it on its head to let a Building Official do something that has never been completed, I don't think has ever occurred in this State. Secondly, the CEQA procedures do not allow a Building Official to approve and certify a EIR. The procedures that this County has adopted are very clear, there are three bodies that can certify and approve an EIR, Subdivision Committee, Planning Commission, Board of Supervisors. There is no mention of any Building Official in there and of course, there wouldn't be. I had suggested a procedure which I think meant consideration but will take some time to think about, which is that this Commission could join together with the Building Official, work out a joint power sharing arrangement and have a joint hearing where you both were together, I mean its the same Staff for God's sake, you guys can all work together and we can do this jointly Not where we have the Planning Commission cut and floating out into space, making some recommendations to some unknown Building Official, never before done, no

precedence to do that. Let's not rush into that. Let's give County Counsel sufficient time to study, analyze, report back with a written opinion as to whether or not that is, what is the best way to proceed. Number 2. Let's wait until the grading plans are done, until those grading plans are done, until we know what buttresses will be required, what other remedial grading measures will be required. Nobody knows what the proper mitigation measures can be. Nobody knows what the proper mitigation measures can be. Nobody knows what the proper conditions of approval should be. I can't have any of my consultants even look at the project, my grading consultants, grading contractors that we've hired have told us I can tell you nothing right now because we don't have the grading plans. So, I can't give any input to the Commission as to whether this makes sense and as to how the Commission can give any input to the Building Official on whether or not the EIR properly addresses those issues, that should happen before this Commission is asked to certify anything and what are you being asked to certify? Nothing has to certify a final document. Your being asked to certify some interim document. You don't, every comment I submitted on this draft EIR was ignored. It was deferred, the lengthy response to comments says: "well, your raising questions about the grading aspects, the grading operations and we'll get to that later." There is no later, this is the last date, this permit which I absolutely call it a ministerial permit, it is a discretionary permit. Its become a discretionary permit because a substantive EIR was required. There's case law in this. Day v. City of Glendale, involving a grading permit that said it was ministerial and the court said "no." As long as Staff has one inch of discretion its discretionary and you can require CEQA compliance. Friends of Westwood, cited in the 80s, building permit, the statute said building permits are ministerial in the City of LA, courts said "wrong." Look at all the decisions that Staff can make about how to comply and whether something complies, that's discretionary . . . (change in tapes) . . . a subsequent EIR. Because you conditioned the grading permit on a subsequent EIR and that makes it discretionary. What does that mean? That means that that recorded map is not vested. Its recorded, but its not a vesting, you never approved a vesting tentative tract map, its just a recorded map and until such time as the grading takes place it is subject to CEQA and as long as its subject to CEQA mitigation can be required. You know what the grading section could say, they could say "that slope is so unstable you'd have to take the street off of that ridge, there's no way a street can go up there and CEQA gives grading section the right to alter that approved tract map, that's exactly what the law says. As long as it's subject to mitigation and you have to implement that mitigation to address the environmental impacts your allowed by law to do that and that means you change that recorded map, your free to do that There's a fallacy here that you can't touch

that map. If it was a vesting map we'd be talking something different, but it was adopted so many years ago and then the circumstances surrounding that are so interesting that it had expired and then it was recorded which we'll be pursuing at a later, but the fact of the matter is there is nothing set in concrete here and my request to this Commission is let us please do the right thing. Let us take our time. I ask you to continue this not just for 60-days cause that puts us right into the Christmas holiday, at a minimum we need about 90-days to understand all these issues and to bring back a document to this Commission that you can in good conscious certify as being complete in addressing a project that you can allow us to see. There are so many issues, so many questions, they all have an answer. Staff did the right thing. They are to be thanked and they are to be commended for doing a subsequent EIR. Now, its our job to help Staff out and work out the procedures in a logical timely fashion and get this right. If we go forward today, you give me litigation, you know nirvana, this is a litigators dream, you are proceeding in the face of unprecedented procedure after a few days consideration with an EIR that doesn't address the grading permit with a Planning Commission that's never seen the grading plan. You think a judge would have much trouble saying that this is an abomination -- don't do it! Out fox us, out fox the public, listen to what the public has to say, that's all you have to do. Give us a chance to be heard let us get our comments in you and agree or disagree with them, but then your safe, your litigation proof. Well, maybe not litigation proof, but at least your a lot better off and I would implore you to do that. Let's do that right, let's take our time, let's not rush, what is the rush, who's got to get this thing done. Why do we have the bulldozers and scrapers out there tomorrow? this project was approved how many years ago. If it was feasible to develop, they would have developed it. I don't know what is going on with this project, but its not to develop it. At any rate, let's do the right thing please Commissioners, please do that, that is what we ask you to do and I will end my remarks on that and I think we can do the right thing I ask you to continue the hearing until all these things get straightened out. Thank you.

MADAM CHAIRMAN: Thank you for your comments. Mr. Buzas?

MR. BUZAS: Richard. Richard Jennings who is also from the Monastery.

RICHARD JENNINGS: Madam Chair and Planning Commissioners. My name is Richard Jennings. I'm a monk with the Ramakrishna Monastery and a spokesman for the Vedanta Society. I want to make just one point and that is in the last incarnation of this project as we saw it last year sometimes we were accused and I think very unjustly of being obstructionist. That is not the case. First of all, we have never argued in favor of no development whatsoever, but we have been primarily

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concerned with one overriding factor of all the many reasons why we could object to this project because we have to live next door to it. There's one overriding factor that has always been upper most in our mind and that is the geotechnical problems connected with this property. Whether 7 million cubic yards are graded 9 million or 11 million the problems remain the same for us and for St. Michael's and for the other residents neighboring this property. Therefore, I would humbly request you to allow us to address those problems and bring this geotechnical situation to bear upon your final decision. Thank you.

MADAM CHAIRMAN: Thank you. Mr. Buzas?

MR. BUZAS: Yes. Sandra Jacobs?

SANDRA JACOBS: Good afternoon Madam Chair, Members of the Planning Commission. My name is Sandra Jacobs. I am principal of FFC Consultants and I live at 23 Cantanion in the City of Mission Viejo and I'm here today as a private citizen and I'm not an attorney. I provided comments to the draft EIR and I've reviewed the response to my comments and I've reviewed the Staff Report. As an environmental professional that's been preparing EIRs for the past 11 years, I've never come across a situation where an EIR has been certified by a Building Official, but CEQA procedures have been beaten death here, so I want to talk about CEQA adequacy. I responded to the Draft EIR with 19 pages of single-spaced text. Not because I oppose this project, but because as an EIR preparer, I know the tricks of the trade and frankly there are deficiencies in this EIR that scare me and I think they should scare you too. First, this has come up before, but I responded to an EIR that was titled "Grading Application GA 960048," when I got my response to comments I see now its just a response to comments for the recorded tract map. Now, I hear this might possibly be a programmed EIR, we're all really not quite sure. Secondly, whether or not this Draft EIR is a grading plan application is for a development plan, the EIR analysis must be commensurate with the level of detail of the project application. In this case, we've got development of 705 units in this geotechnically sensitive area. If I were writing a Specific Plan EIR, which I have, I would provide mitigation which requires subsequent studies later in the entitlement process. In this instance, we are at the end of the line with this project. You can't condition this project any further into the future because we're already there with the grading application. Third, the geotechnical impacts. My educational background is in geology. I understand engineering, geotechnical engineering, I understand the geotechnical problems that are associated with this project. My comments represent concerns that have still not been addressed in this Draft EIR, for example, I commented on page 4-31 of the Draft EIR alerting the County that the EIR, excuse the pun.

watered down the geotechnical report by stating that "some groundwater might be encountered during grading." The Nickol Report which is the Geotechical Engineer for this states that "heavy seepage was encountered as indicated in the boring logs at multiple elevations," that's important "consequently, considerable water can be expected within plan excavation, typically reaching maximum discharge within 2 to 5 days," that's maximum discharge, we can go on for ten days of them trying to de-water some of these cuts in this development. Why didn't the EIR say that? I had to dig down through the Geotechnical Report for that information. The EIR preparer's response to my comment, refer to FFC1 (that's me) my first letter where I'm told sufficient information does exist for this EIR. I disagree with that. I also commented on page 2-24 of the Draft EIR alerting the County again of problems with subdrains or the lack thereof in the Hidden Hills development, just south of this project. Once again, I was referred to FFC1 and told that sufficient information does exist. I even provided a footnote in my response of the title and date of the Geotechical Study that was done for the remediation of the Hidden Hills project by NP & Associates. I know what happened at Hidden Hills, there were subdrains that they forget to put it. Yet, subdrains were required as mitigation as they claim to be in this EIR as well. How can we be sure the mitigation required for this EIR is adequate if the Geotechnical Engineer himself says that a more detailed analysis is necessary. We need to see that detailed analysis as part of this EIR. Fourth, the biological issue. I commented on statements in the EIR that say mitigation measures cannot be implemented, this is what the EIR says, by changes to the grading plan because this project, proposed project, is a legally recorded tract map. However, under the Federal Endangered Species Act, all take must be accommodated. The Federal Endangered Species Act doesn't recognize that this is a recorded tract map. You have to accommodate any take of a biological impact. The response to my comment -- refer back to the Draft EIR for discussion. The list goes on. I alert the County of deficiencies in the Draft EIR, the response back -- there is no deficiency. Finally, and I'll say this again, there are deficiencies that need your attention prior to certification, prior to your recommendation and certification by Building Official or whomever ends us certifying this document and remember asking for more information simply not denying a project, I'm afraid this project has become CEQA's unnecessary evil for it. It shouldn't be a necessary evil for this project. There is simply not enough sufficient information for this project, the Grading Application, and you as a Planning Commission and we as the public have a right to review the proper information for this grading application. I agree with Mr. Connor's comments and I urge you to continue this project until such time as detailed information is received and recirculated for the public for comments and continue

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this project until your procedure is ratified. I'd have to agree with those statements that I've heard earlier this afternoon. I thank you very much for your time and I'm available for any questions.

MADAM CHAIRMAN: Thank you for your comments and your hard work.

MR. BUZAS: Bob Bennyhall?

BOB BENNYHALL: Bob Bennyhall, let me say at the outset I'm not a geotechnical engineer, I'm not a lawyer and I don't even live in the area, but as Chuck and Tom know I've sat over here for 20 years watching this Commission. I've been very active and was on the _____ which gave birth to all of these monstrosities we've been building for a long time here. I put those in quotes. If you go back and check the history of this thing, its rather interesting. The Legislature at one point had to change the law so that they could keep the recorded tract map in effect it lead to the decision of the members of the Board of Supervisors to leave the Board. I won't go into that. When I sat here and heard about the 318 it was all I could do to keep from saying something, but I can live with that, but now when I found out we might have 505 affordable housing units on the side of hill which even an amateur listener like myself would decide that its a very peculiar hill and a very unstable hill then I found out that one man, a Building Official, could conceivably decide that the EIR was adequate. Well, I'm a great support of most County officials, but I don't think we have a Building Official who has the talent, the knowledge, or anything else to be the judge of the adequacy of the EIR. Furthermore, the Board of Supervisors had every opportunity to decide this, but they couldn't agree, I won't go into that, we all know that story, there was more politics in that than there was logic, but that's my personal opinion I think can be shared with the general public But speaking of the members of the general public whatever you do, whether you follow the one attorney's advice or the other somehow or other we've got to fix this somehow so that not one man looks at the adequacy of this EIR in respect to 505 units, remember this EIR your looking at was prepared for 318 units, not 505. Even the school thing is off. They said the school could handle 308 families children, I'm not sure they could handle 505 lower income families children. There's all kinds of disparities here. First of all, a plan that has seven statements of overriding considerations should leave most people to do more than raise their eyebrows. Even so, the 318 as I said I think I personally could have lived with, 505 no way! But even before we get to that point, somehow legally, by agreement or otherwise, whether Ben de Mayo's got some magic law, or one of these attorneys is right. Somehow, this Commission has got to look at that aspect of it. This Commission should decide in this opinion or at least recommend to the Board when they get over there -- God forbid what happens -- but nevertheless, let's concern ourselves right now with this

Commission. This Commission should decide is this EIR adequate for 505 homes and is 505 homes is the EIR adequate for 505 homes when there were serious questions about 318? I don't know how else to put this, except somewhere we have a whole bunch of carts in front of the horse and somehow or other I would like the horse to get in front of the carts. Thank you.

MADAM CHAIRMAN: Thank you for your comments.

MR. BUZAS: Is there anyone else that would like to speak on this item? Do you want to give the applicant an opportunity to respond?

MADAM CHAIRMAN: Yes. Certainly.

WILLIAM D. ROSS: William Ross again in response to one issue that I think is critical in term of procedure. I believe its the September 11th letter of the Planning Director and I believe it was addressed to Mr. Connor that goes through the availability of the document and actually extended the time for commenting on the draft and I would only respectfully note that the documentation that that communication references I think is critical to that issue, but otherwise I think our predominant concern is one of procedure and process now and validation of that process so that there's no an undue expenditure of your Commission's time, Staff time as I've said in my previous remarks and I would leave it at that.

MADAM CHAIRMAN: Thank you for your comments.

PIKE OLIVER: Pike Oliver again for California Quartet. I'm not sure whether we clarified this but there was a question as to whether there was an application on file for a grading permit and I just wanted to clarify that there is one. We did originally file back in '94. We put that application on hold and reactivated it. I don't recall the precise date, but it was in November I believe of '96 after the Board of Supervisors failed to reach agreement on an alternative plan and the materials were filed with the County and so there is an application and filing fees were paid and that became the basis for the environmental review.

COMMISSIONER: Together with that application was a plan filed?

PIKE OLIVER: at the time . . .

COMMISSIONER: grading plans?

PIKE OLIVER: Yeah, grading plans were filed yeah.

COMMISSIONER: So they are on file with the County at this time?

PIKE OLIVER: I'm not sure that their still on file with the County, normally the County's procedure is they take the milers and make comments and then they send them back to the engineer for

further work. I think they made their comments, sent them to the engineer. We've had further work on hold until we complete the environmental review.

COMMISSIONER: Madam Chair?

MADAM CHAIRMAN: Yes?

COMMISSIONER: It was seen as the though the process was highly flawed then if there's no materials for the public to review when they come to the counter and ask questions and I think that's made evident when those who are willing to see those plans are directed to contact the developer and his engineers and provide money to them in order to get a copy of the plan, it seems to me that we don't have an application if there's nothing for people to see. I'm only speaking in terms of the public having access to the project.

PIKE OLIVER: Excuse me. If I could respond to the Chair. Again, I can't, we can't speak for how the County administers it but in the case where we were requested to provide the detailed plans and there is a certain expense as you can understand with making those copies and we did them and made them and provided them finally and as I recall the commentor was granted additional time to be able to review and provide comments.

COMMISSIONER: Madam Chairman? The grading application that you requested or put forth was for a grading permit and I assume there's maps with that that show the gradings and so forth. Are those grading maps consistent with the tentative tract map that's been analyzed in the EIR?

PIKE OLIVER: Yes.

COMMISSIONER: You know that? We don't know that. That's the problem.

PIKE OLIVER: Well, its consistent with the existing map that applies to the property . .

COMMISSIONER: Yes, that's what should have been done in here, then we could really know what we're evaluating.

PIKE OLIVER: Well, the map that's in the EIR document there is a reduced scale map that shows the lotting on the property and that's consistent with the grading plans that were prepared and submitted so, I mean, there is no hide-the-ball or anything like that as far as I can tell in the environmental document. I mean accurately reflects the grading that would occur on the property.

COMMISSIONER: Particularly in this case because we're talking about property that are really in jeopardy allegedly and it would be good for us to really be able know exactly what those plans say and exactly what the potential impacts are and exactly what the mitigation measures are, so that everybody could feel good that "yes" these plans are really going to buttress the property even better

than they are now.

PIKE OLIVER: Yeah. Mike McKnight of our staff has just given me Exhibit 18 and Exhibit 19 from the environmental document. Exhibit 18 is noted "Conceptual Grading Plan," and that shows the extent of grading on the property and Exhibit 19 is labelled "Geotechnical Hazard Mitigation Plan," and that shows the mitigation measures particularly the removal areas and buttress shear keys that would-- mitigate from impacts to adjacent properties.

COMMISSIONER: Again, the grading plan itself should have been specific . . .

COMMISSIONER: You mention that the grading plans are back with your engineers currently?

PIKE OLIVER: That's my understanding.

COMMISSIONER: Okay and that there's some updating to be done on it?

PIKE OLIVER: Yes. It's the normal course where they make notations and send it to the engineers . .

COMMISSIONER: Is there some that would take extensive amount of time or not a lot of money that could be done pretty quickly and got back to the County maybe?

PIKE OLIVER: My understanding is that . . . sure.

COMMISSIONER: Okay. It sounds to me like that aspect of it could probably be addressed pretty quickly and without an absorbent amount of money expended and I think the other point, the procedural part of it that your counsel brought up could also probably be, I don't know how fast that could move along. Ben is there any idea of what the Board of Supervisors, how long it would take to get that procedure in line?

BENJAMIN de MAYO: Well, we haven't until Mr. Ross mentioned it today, we hadn't thought about a process of getting that procedure ratified or some other procedure as Mr. Connor suggested to the Board. So, we would need to have Staff figure that out. Mr. Britton and I have come with this pink sheet today without consulting with either side in this matter.

COMMISSIONER: And we appreciate Staff doing everything they can to do this. I think everybody is trying to do the best thing and I think everybody wants to move this project along and lets get it to the next level, but I think those are the two things that I've heard today. One, let's get the procedure right, make sure we're legal with it and let's get these grading plans back where people can see them and at the same time we can be addressing some of these other questions that we all have in the environmental impact report and perhaps in a really expedient time we can be back here and get this thing approved and moved on.

MR. BRITTON: Madam Chairman, as you could tell, Mr. de Mayo and Mr. Stanton and I were having a whispered conversation. We've had a lot of discussion about the County grading permit process but Mr. Stanton who is the Manager of that part of our Department is here and I think it might be helpful for the Commission if he were to outline what actually happened with the grading permit in terms of -- is his office the relationship with the engineers who submitted and the relationship of the public in that process. So, if that would be helpful to the Commission, from my perspective, I think that might be helpful for you, maybe not. But I just throw that out as an idea.

MADAM CHAIRMAN: I think it would be helpful.

COMMISSIONER: Let's hear Mr. Ross first . . .

WILLIAM D. ROSS: I just want to record something on the record. I think I said September was Mr. Mathews' letter and I believe the correct date is August 12th, where that representation was made and I also note that we are supportive of the County grading review process, we want to be treated like everybody else and we believe that we've complied with that. For example, the system say on a different scale here, we believe, 40 scale analysis as opposed to what's presented or something like that. There are other areas where the issue of hazardous come up both under the manual and the ordinance and again we think its important that there's continuity of procedure and that this process I use the word before continuum and I believe that is an accurate statement of the procedure with that idea. Thank you.

MADAM CHAIRMAN: Mr. Stanton.

MR. STANTON: The grading plan review process is as just spoken is continuum the plans are presented to us in the grading plan check section. They are routed to various different departments including the environmental group and we review them. The environmental group reviews them for the environmental impacts. My group reviews them for the compliance with the Grading Code and with proper engineering and geological processing and design of the project. We review the plans and the geology report. We give them back to the project proponents. They then in whatever time frame they need to operate in, give the plans back to us and its a continuing process of fix the plan or do whatever they have to do to provide updated geological information. My Staff reviews it and gives it back to them The grading process isn't here to be a public review process, the environmental process, so quite often people say "give me a copy of the plan," we may have one copy, two copies of the plan, two are before, I have two sections to review it So, its not a case of we're trying to hide anything, its a case that we've only got two sets and we need them ourselves But certainly and again we're sitting

waiting for a input from the private side. When a project is proposed, we review their plan and make our comments and then we wait for . . .

MADAM CHAIRMAN: Mr. Stanton, this paper that we were given that showed the excerpts from the Orange County Grading Manual,

MR. STANTON: Yes.

MADAM CHAIRMAN: was that shared with the public also?

MR. STANTON: No, as far as I know it wouldn't.

MADAM CHAIRMAN: Would you address that perhaps a little bit, I think its very pertinent to some of the concerns.

MR. STANTON: Okay. Do you understand the Subdivision Grading Code? The Grading Code sets up the ordinance under which grading is implemented. It also allows for a grading manual which gets down to the nitty-gritty, how many sets of plans do I need and those types of issues. This is from the grading manual and it addresses the question of providing security during a grading operation after the grading permit has been issued and the normal procedure is to provide security to cover the cost of 30% of the project. Basically, construction cost and 50% of the drainage improvements. The manual also allows the Building Official has the opportunity depending on the potential hazard and the nature of the project to either reduce that amount or to increase it all the way up to 100% of the cost of doing the work. If the potential hazards or the nature of the project justifies an increased amount.

MADAM CHAIRMAN: and when you say the Building Official is this your department, or is this the Building Official's and we are yet to meet them . . .

MR. STANTON: Again, the Grading Code and the Grading Manual both refer to the one official as the one who's be doing it, but it is implemented through my department.

MADAM CHAIRMAN: Thank you very much.

MR. STANTON: Thank you.

COMMISSIONER: Pat, who is the Building Official?

MR. STANTON: Larry Neil, currently he's the head of the Building Inspection.

COMMISSIONER: If a person walks up to your counter and asked to look at the grading permits that you currently have in your office would they be available to them? for that particular project, if they had come back?

MR. STANTON: Yes. Once the permits issued the files are transferred down to our inspection room and they'd be available for people to inspect them.

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COMMISSIONER: Are they available prior to the issuance of the permit? If somebody wanted to look at them?

MR. STANTON: Again, during the plan check process it depends on whether you were currently checking it or whether we've checked and sent it back to them to make corrections. It would be available for someone to look at if it was in our office.

COMMISSIONER: Thank you.

MADAM CHAIRMAN: Thank you very much. Does Staff wish to address us at this time?

MR. BRITTON: I think there are certainly a number of points that we should raise. I would feel more comfortable if the Commission would be willing us to have about a five minute caucus I'd like to -- with Mr. de Mayo, sort of sort out just who's the best equipped to handle each of the loose ends, so if that would be acceptable to the Commission I'd like to suggest that. If we could have five minutes or so and then we'll . . .

MADAM CHAIRMAN: Certainly. Yes. You may so proceed.

FIVE MINUTE BREAK

MADAM CHAIRMAN: For comments from the missing attorney?

COMMISSIONER: the phantom attorney.

MADAM CHAIRMAN: Okay one minute. Alright at this time I will ask for comments from the attorney.

MR. de MAYO: Well, I can't come a complete solution, but I think what we would suggest doing especially in light of some of the Commissioner's comments with regard to the desire to have the grading plans be a part of the information that's available to you in your review of the EIR. I think Staff's position would be that the environmental issue are fully addressed without the necessity of looking at the details of the grading plans themselves, but in terms of to have the grading plans available to you in making your determination or recommendation and in order to allow the product by which this project goes forward after your recommendation, again the appeal to the Board, the approval by the Building Official what we would propose would be continual, I don't have a length of time in mind but within the time of that continuance we would want to get back the plans from the applicant with their last set of responses to the last set of comments that Staff had made, make those available to all the interested parties for their review and make them available obviously, the correction, and also that we would attempt to respond to the procedures as listed on the pink sheet. Share those with the parties and then take those to the Board. Tell the Board that this is the way this will be processed after your

Commission's action and I don't know if George had any refinements on that or not?

MR. BRITTON: That makes sense from our perspective in terms of our objective at the next session would be that your Commission would be better prepared to relate the recorded tract with the grading that is involved to implement that so that your level of information in terms of that grading vis-a-vis the draft EIR would be more explicit if you will . . .

MADAM CHAIRMAN: Was it considered at that time of our looking then at the podium including the new grading engineering meant to try to put up a joint meeting with the public official, or did you discuss matters that a possibility . . .

MR. de MAYO: I think that's a possibility of something that you would work on in the mean time. I think what we might do is, this Building Official really isn't set up to have something in the nature of that public hearing and I think in large measure in his determination he would want to rely on and consider the testimony that was before your Commission. Possibly to set it up in that way, where he didn't need to be present, he could have a tape, or in someway avail himself of the record as prepared and submitted to your Commission.

MADAM CHAIRMAN: I think in consideration of all parties, the most timely manner in which we can accomplish this . . .

COMMISSIONER: Mr. de Mayo are you still indicating that you think that the preferred way to go is to have a Building Official make the final certification of the EIR and at this moment.

MR. de MAYO: Yeah. That's still my point at this . . .

COMMISSIONER: Really. I was persuaded by Mr. Ross pretty strongly on that cause I'm no lawyer and I don't want to get into that legal . . . but the Board normally has that responsibility. I don't want to screw it up, mess it up because of some technicality over procedures.

MR. de MAYO: Well, again, it would be subject to an appeal to the Board. I mean the Board would presume that the Building Official just certified it and it would go on to the Board, so the Board would be doing the actual certification.

COMMISSIONER: They would do that?

MR. de MAYO: Right, but again on an appellate case, similar to when on some projects your Commission makes determinations and that's available to the Board, it would be a similar process, but again we'd have to work out the precise parameters of that.

COMMISSIONER: In other words, this would be modified . . . it would be the Board's decision as to what procedure they want to use. I don't think it's our position to say that a public

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official can't do it, or the Board to do it. The Board Supervisor is going to make that decision based on what their procedure will be.

MR. de MAYO: Right, we'll make a recommendation. We'll make a joint recommendation to the Board, but it will be their determination as to what that process is. So, we probably should ask the applicant how soon they can have those, how soon they can get the next version of the plans back to review them with Staff.

WILLIAM D. ROSS: I'm not going to respond to that, but could I just get a point of clarification so that I understand. Mr. de Mayo and I he approached this and I think I understand the procedure, but I do have a question. So, the procedure would be that the Commission would make a recommendation upon submittal of some type of further analysis by Staff about the relationship of the Grading Plan application and permit process to the recorded tract map and the continued efforts to get some type of development authorization on the property as is purported to be analyzed, so I use a neutral word, by the proposed Final Subsequent Environmental Impact Report. That's one aspect?

COMMISSIONERS: Right

WILLIAM D. ROSS: and where it goes from there, there would be an effort to obtain some type of validation, ratification from the Board as to the procedure as to, let's call it the decision tree, one version of which has been proposed in the pink sheet today?

MADAM CHAIRMAN: Right.

WILLIAM D. ROSS: Ok. We are in a position where I believe they are the third reiteration of the grading plans can be submitted within one week's time. So, that would be the representation that we would make, but again, we want to emphasize that we think the procedure has to be validated. We have expended to date on hard costs on this recorded tract over three million dollars. So, we are unique in that aspect, but we want to be treated the same in terms of grading permit application procedure and if that the procedure your following we understand that, but we think the Board's some type of approval of this decision tree is a condition precedent.

PIKE OLIVER: Madam Chairman. I heard 90 days and that timing and I've got to say this. That gives us great heart burn. I just don't understand why this has to take 90 days at this point. I wish to point out that we have filed, or reactivated the permit application last November. It's been nearly a year, the environmental document was circulated some time in June, so time is really dragging so if there is a need, I don't see any relationship here in terms of, we glad to provide the addition or refile the grading plan, but I frankly don't see what relationship that has to do with resolving procedure and

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getting on with some kind of recommendation from this Commission and frankly, while obviously we have concerns about the procedure and want the Board to review that. I think this Commission can reached its conclusions on the environmental issues within the next couple of weeks. I mean there really isn't any additional information that's required that we imagine at this point and we don't understand why it should take three months. I would say no longer than a 30-day continuance would-- be necessary.

MR. CONNOR: Madam Chairman could I be heard?

MADAM CHAIRMAN: Yes.

MR. CONNOR: I will be brief I just would like the Commission to remember that there's got to be some time factored in for the public to comment on these plans that are now being brought back for the first time. I've been asking for these for months. So, we need to have some public input. I heard Commissioner Goacher say earlier, right at the beginning of the hearing, that he had all sorts of comments. I employ the Commissioner, the next time you bring this back have your documents, the environmental documents address the grading impacts and mitigation measures. If you don't we'll be making the same objections. Let's do this right. Give us a chance to give input, I'd like to have my consultants look at those grading plans and I think they'll tell a lot of interesting things that will show that the estimates of the duration of the grading and the EIR is completely absurd. It will take much longer than their saying, let us look at it, give us time. Two weeks, as if we're not even involved in this process, we are.

MADAM CHAIRMAN: We're not deciding the time at this time. No, please.

COMMISSIONER: Mr. de Mayo. Madam Chairman. Mr. de Mayo, how long is it going to take to get this procedure resolved?

MR. de MAYO: It will take us at least two weeks to get it to the Board. If necessary we're talking about at the earliest date assuming that those plans really are back next week and they're available to the public next week. The earliest date would be December 2nd or 3rd.

COMMISSIONER: Okay. Is that would you like to have some time? Staff then?

MR. BRITTON: Well, that would be, that would kind of say there is a month's review period for people to look at everything before the next public hearing. Otherwise, there is a December 16th, if you . . .

COMMISSIONER: Is this gonna fly through the Board pretty quick or is it going to be . . .

MR. de MAYO: . . . could probably answer that question better than I could, but no. We don't

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believe that it will get to the Board in the next two.

COMMISSIONER: Are we officially reopening a comment period, or is this new material?

COMMISSIONER: No, it wouldn't be a comment period.

MR. de MAYO: No, we're not gonna, we're at least at this point, we are not treating this as a comment and recirculation period, we're treating this as an opportunity to see if people see things in those plans, their gonna raise the deficiency of the environmental issues and we have to address that. At this point, Staff's position is that the environmental issues have already been addressed, but if somebody in seeing those plans feels that there are environmental issues, then we have to address that.

COMMISSIONER: You feel your responsible, Staff's responsible for addressing issues that haven't been addressed.

COMMISSIONER: So, the first week in December, the first meeting in December would be appropriate for all the Staff to work through their problems?

MR. de MAYO: Sure, we're not doing anything else over Thanksgiving.

MR. BRITTON: From our perspective that's workable and I just want to emphasize we're not bringing the permit to you for your approval. We are bringing more information about the relationship of the grading of the project to the 705-unit tract and the EIR which will I think obviously provide information that you don't know have, but I do need to stress that we are not suggesting or wouldn't want this stuff to be interpreted as moving the grading permit into the purview of the Planning Commission rather we will do our best as Staff to provide you and interested members of the public with more information so it's easier to translate as appropriate within our process, more information on the grading and the tract and the EIR.

MADAM CHAIRMAN: Did you wish to respond to any of the comments that were made?

MR. BRITTON: Frankly, we certainly will and I think perhaps the most efficient thing would be for us to regroup and as a part of Staff Report for our next meeting do our best to address the issues that have come up in the verbal testimony as well as some of those that have come up in the recent letters that may not have really been covered in the testimony today.

MADAM CHAIRMAN: In that event, I know that Mr. Goacher has some . . .

COMMISSIONER GOACHER: Thank you Madam Chairman. I may have been wrong, but I thought when this was given to us a week earlier than our normal packet that it had been read and commented on and discussed so, I feel kind of funny being the only one here who feels real adamant about getting these comments over. I don't want to take the hours it would take to go through them,

but I have flagged them. The yellow tags being really curious typo problems and all the rest being issues where I think the response to comments fell very very short and I sidebarred put in lots of notes where I believe where its blackened. So, I think Staff take this if they would please and respond to it as far as . . .

MR. de MAYO: I'd be very happy to.

MADAM CHAIRMAN: that's a lot of hard work. I know I read it and there were things I thought I would play but I didn't do it.

COMMISSIONER: Just so that I can get a clarification I think what we're saying is that we will continue either to December 2nd or 3rd at which time Staff will have, through County Counsel, will have attempted to get a process ratified, the term being used ratified by the Board of Supervisors on what happens after you make a recommendation. . . of a environmental document by the Building Official is that correct? Also Staff will have fined tuned response to comments per Commissioners Commons.

MADAM CHAIRMAN: Very well, does that sound like plan?

COMMISSIONER: I forgot one more thing. Also the applicant's obligation is to get quality prints of the revised grading permit document to the County and I'm not sure how many copies will be needed to give everyone an opportunity to review them so, I guess that can be worked out after the hearing.

MADAM CHAIRMAN: Okay.

COMMISSIONER: So moved.

COMMISSIONER: So, let's get date?

COMMISSIONER: Do you want a Tuesday or Wednesday?

COMMISSIONER: Wednesday would be better. Okay Wednesday, December 3rd.

COMMISSIONER: Second

MADAM CHAIRMAN: Fine. Alright there's been a motion and a second to approve the new project plan and to continue the process until December 3rd. If your ready to vote without any additional discussion. All those in favor, please signify by saying "aye."

COMMISSIONERS: Aye.

MADAM CHAIRMAN: Are any opposed? The motion is unanimously carried.

END OF DISCUSSION ON ITEM NO. 1

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Board of Supervisors Meeting Transcript
November 25, 1997

BOARD OF SUPERVISORS MEETING
NOVEMBER 25, 1997

CHAIRMAN: Okay Item No. 42 has to deal with a County Counsel and Planning Development and I will not be involved with this at all. It is a District 3 Item and I would like to turn it over to Supervisor Spitzer if you will run this part of the meeting.

SUPERVISOR SPITZER: Thank you very much Mr. Chairman. I understand that there is a public speaker. What I will do is, it is a District 3 Item, and I will reserve my comments until opening up for public comment. Do you have the cards by chance?

CLERK. I have two. I also need to read the Item Supervisor.

SUPERVISOR SPITZER· Okay, yes could you please read the Item.

CLERK: Yes this is an Item of the County Counsel and Planning and Development Department approve proposed procedures for review of draft Supplemental Environmental Impact Report 566 for Saddleback Meadows and initiate revisions to County Environmental Analysis procedures for consideration by the Planning Commission and adoption by the Board and we do have two public speakers indicated.

SUPERVISOR SPITZER: I would like to first invite up Frank Elfend who would like to address the Board on this matter.

FRANK ELFEND Good evening, my name is Frank Elfend, Elfend & Associates, 16 Newport Center Drive, Newport Beach and I would like to make just a few comments tonight regarding the Discussion Item which is before you which was provided in response to a meeting which took place at the Planning Commission several weeks ago. The matter involves the procedure and only the procedure for reviewing the Environmental document on the Saddleback Meadow's

project we support the Staff's recommendation within their transmittal and once again I want to state publicly that it is only the procedure that is being considered tonight. Our Attorney, William D. Ross, did submit a letter to the County today indicating the same but also indicated that there was one Item that we are still open that we are discussing with County Council but do feel comfortable with the recommendation made by Staff today. With the exception of those comments, and understanding that on Page 2 of the Discussion Item submitted to you, there is a statement by your Staff indicating that in making this recommendation they considered input by both our attorney and from other attorneys representing other parties both notably the Abbey and the Monastery. After considering all that information, that they made the recommendation which is before you tonight. So hopefully we can move on with this project. This is just a procedural vote, have it come back to the Planning Commission in the next few weeks and then ultimately have this Board decided at a future date.

SUPERVISOR SPITZER: Thank you very much Mr Elfend. Mr. Ed O'Conner. Excuse me Ed Conner.

ED CONNER Good evening Board Members. My name is Ed Conner I represent the Vedanta Society of Southern California. They have owned and operated the Ramakrishna Monastery which is adjacent to this project site for the past 50 years. Regardless of whether any of us in this room loves or hates the Saddleback Meadows project which will in its present form allow the construction of 700 units of manufactured housing in a very pristine setting by the Monastery by the Abbey, regardless what we think about it, I think we can all agree that the process by which this project is to be reviewed should be fair and logical and legal The process as has been proposed by County Staff meets none of these criteria, it is unfair, it is illogical and it is

decidedly unlawful. What the procedure does is to stand the normal CEQA review process on its head. It puts the Planning Commission and this Board at the bottom of the totem pole and it put the building official at the top of the totem pole. In effect, it asks the Planning Commission to approve an EIR in a vacuum without any ability to approve or disapprove the very project for which the EIR was prepared and in this case the Grading Permit. The Planning Commission has no right to condition that permit, to change the permit, to deny the permit and that is against the law. There is no precedent for this in this County. There is no precedent for that in the State of California. CEQA requires the body that approves the EIR has the ability to also approve the project for which it was prepared and that is what is being divorced here. The Planning Commission is given the right to approve the EIR, but its told it can not touch the Grading Permit that goes solely to the building official. Now, when this first came up on October 22 in front of the Planning Commission, there was pandemonium and I think it is fair to say that most every member of that Commission was very upset that they were being asked to approve the EIR without even being shown the grading plans. Now that apparently has been remedied but where are we now? We are at a very simple solution. What needs to be done? Simply recognize that when you require a subsequent EIR at the Grading Permit stage you are not in Kansas any more. It changes it to a discretionary permit and then it should be treated like every other discretional approval in this County. It should go from the building official to the Planning Commission and whatever the Planning Commission decides whether they want to approve it, change it, modify it, then so be it and then let it come to this Board to make the final decision. This is not a mere technicality the Monastery, good lord, has been there for 50 years. It is after all a Monastery. The other side of this property finds an Abbey and a High School and

what we are talking about doing is allowing a Grading Permit to go in there and rape and plunder and pillage that land and take care of it for every. I think this Board should allow the process that we use for everything else to apply in this case. Let it go to the Planning Commission, let it have the right to respond to the public that says you know I think that because it is going to de-water all of the ground water and take all of the water away from the wells because it is going to cause land slides, why don't you eliminate that street over there

CHANGE IN MALE VOICE: Mr. Conner you need to wrap it up, I'm sorry.

MR. CONNER And I would request that the favor that this Board do at least at the Monastery which 20 years ago gave 300 acres to the park which we all enjoy should at least be to give it a fair process. Thank you very much.

CHANGE IN MALE VOICE: Thank you Mr Conner. Seeing no other members of the public I will close for purposes of public comment and return to my colleagues on the Board. Any thing at this time. Thank you.

CHANGE IN MALE VOICE: Colleagues if you will look at the recommendations of Staff. I think that in this particular instance Mr. Conner drafted us a letter and I think all of you have had a time to read it. I have reviewed both the Aradi memorandum from their attorney as well as Mr. Conner and it seems to me like in this circumstances a very simple solution with respect to the recommendations made by Staff in Items 1 through 5 and that is to add an Item 6 given this particular set of circumstances. In this particular case, we are not dealing with the run of the mill every day environmental impact report and then a Grading Permit being issued in approximation to the Environmental Impact Report being certified by the Planning Commission

TAPE NO. 2

MALE VOICE: The Board of Supervisors on appeal or whatever obviously it doesn't have to come here, but in this particular case we have an original EIR that was done in 1988 and everybody admits that it is very old and it was one of the reasons that Mr. Matthews directed the owner of the property, the developer to, what I'm calling re-energize the EIR or come up with a supplemental EIR because of the fact that there were potential change circumstances under CEQA. As you know and Mr. Conner elaborated, we do have the discretion to be the appellate body with respect to the issuance of grading permits, however, we have delegated that authority as a planning body to our planning direct. I am not advocating this evening that in every instance, because I think it would be very difficult to handle quite frankly, where this body would be -- I'm not suggesting we make a change in the ordinance where every single planning, excuse me, grading would come to this Board on appeal. I think that would be out of hands. However I think it is appropriate in this circumstance, it is not limited to this project because there are other projects where this has happened over the last ten years where there has been an aging, if you will, process from the time of the original EIR where there was either a supplemental or a subsequent EIR asked for by the County because of CEQA changes that a, in this particular instances we allow that situation where there is that much age to go back to the Planning Commission for approval with respect to the grading permit. In other words, I'm asking you colleges to allow, given this very limited set of circumstances, because of the aberrant nature and the aging of the process that where this has occurred that this can be appealed to the Board of Supervisors in this very limited circumstances appeal to the Board from the Planning Commission In other words, let the grading permit and the recommendation go back to the

Planning Commission and in the event that some body wants to appeal from the Planning Commission in that limited instance where the County has ordered a subsequent or supplemental EIR, that grading permit can be reviewed by this Board of Supervisors. So that would be my recommendation that we adopt the Staff recommendations 1 through 5 and add the 6 recommendation which is something to the effect of direct County Counsel to draft appropriate amendments to County ordinances. I am leaving it plural because I'm not sure if it is one or more. Where there is a "supplemental or subsequent EIR (given changed circumstances under CEQA) to allow a grading permit to be appealed to the Board of Supervisors from the Planning Commission" in other words, that's the vehicle that allows -- puts the grading permit to the Planning Commission and after the Planning Commission reviews it, then it could be appeal to the Board of Supervisors. Well that's the end of my amendment. The other thing that I would add is that the Planning Commission has requested some more detail analysis of the grading and for that reason, I think the Planning Commission has already invested in this particular project on the grading permit. So I will open it up again now that's my recommendation. I would move the recommended action with that amendment and I would ask my colleagues if they have any comments

SUPERVISOR SMITH: Does it normally, the Planning Commission is it set up as an advisory committee to the Board of Supervisors and any of their actions can't they be called up by the Board or appealed by some member of the public.

CHANGE IN MALE VOICE: In this particular instance, I'll defer to Mr. deMayo, he is the expert. but in this particular case the County hasn't -- this is not an every day occurrence where we have a re-energized permit. We don't normally the Board

CHANGE IN MALE VOICE (SUPERVISOR SMITH): I got some questions on that too.

CHANGE IN MALE VOICE: Sure.

SUPERVISOR SMITH: I'll get back.

CHANGE IN MALE VOICE: Do you want just for Mr. deMayo to answer them?

SUPERVISOR SMITH: Yeah.

BEN deMAYO, DEPUTY COUNTY COUNSEL: On that particular question, a grading permit currently under our ordinances is handled by the building official, it would not get to the Planning Commission.

CHANGE IN MALE VOICE: So the grading permit would not get to the Planning Commission.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Right.

CHANGE IN MALE VOICE: So as far as the Environmental Impact Report is concerned, that was approved back in 1988.

BEN deMAYO, DEPUTY COUNTY COUNSEL: In the 80s, I'm not sure the exact date.

CHANGE IN MALE VOICE: What has been the process of that? Has that come back to the Planning Commission for approval or has that gone to the Building Official? I understand that our process, as written, doesn't sequence it correctly from the Planning Official to the Planning Commission and then to the Board. What has been the process with this EIR and then the EIR as amended or redone?

BEN deMAYO, DEPUTY COUNTY COUNSEL: The Planning Director determined that because changed circumstances that a subsequent EIR needed to be prepared and under the County internal procedures that would be done by the Planning Commission subsequent to our

adoption of our internal procedures State law was changed to require any EIR certified by a non-elected body must be appealable to the elected body and that is why we are before you this evening to try to implement that provision of State law with procedures and we -- and that EIR -- the subsequent EIR has already had one hearing at the Planning Commission, its scheduled for another hearing next Wednesday.

CHANGE IN MALE VOICE: So in order for that process to work correctly we have to approve Items 1 through 5.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Right.

CHANGE IN MALE VOICE. To be in compliance with the way its going through now.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Right, you have to adopt a procedure to allow that decision of the Planning Commission too that they certify the EIR to be appealed to this Board.

CHANGE IN MALE VOICE: Now let's assume that its appealed to this Board, the EIR, or that its certified by the, well let's assume that its going to be appealed either way.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Now, I should point out, Supervisor if the Planning Commission does not certified the EIR, State law doesn't require that you allow an appeal You only have to have an appeal if they certify it. So if they decide that it is inadequate and send it back for further modifications, there would not be any appeal process to the Board.

CHANGE IN MALE VOICE: So it would only come to the Board if it is certified by the Planning Commission. Okay, so then supposing it gets certified by the Planning Commission, it gets upheld by the Board, then what happens? What is the process for the grading permit.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Then the grading permit would be considered by the grading official utilizing the grading criteria in that are in the codified ordinances as well as in the grading manual that the County has adopted. So the grading official, building official would look at the building permit in light of those criteria.

CHANGE IN MALE VOICE: So there is an established criteria set up for the grading permit, if they meet that established criteria which is technical in nature, then they would issue the grading permit

BEN deMAYO, DEPUTY COUNTY COUNSEL: Correct.

CHANGE IN MALE VOICE: And that's not appealable.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Right, under the current ordinance, that's not appealable.

CHANGE IN MALE VOICE: But the control that the County has then is with the EIR.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Correct.

CHANGE IN MALE VOICE: If the project is going to end, its going to end with the EIR and not with the grading permit. That is beyond the Environmental Impact requirements. Its some thing that we can't make a judgment on under any circumstances because it is technical in nature.

BEN deMAYO, DEPUTY COUNTY COUNSEL: Right the discretion that is in the building official rests upon the criteria that is in the Grading Manual and in the Grading Ordinance.

CHANGE IN MALE VOICE: So even if it did come through the Planning Commission and or the Board, we couldn't reject that if it met the criteria as set up, we would have to change the criteria.

BEN deMAYO, DEPUTY COUNTY COUNSEL: That isn't an issue at this point.

CHANGE IN MALE VOICE: The real issue is in the Environmental Impact Report and in my mind the grading permit becomes a non-issue in my mind.

BEN deMAYO, DEPUTY COUNTY COUNSEL: And again.

CHANGE IN MALE VOICE: We can't control that. When the Planning Commission considers the EIR and presumably if your Board considered it on appeal. The environmental issues relied to that permit or related to a project as a whole, Mr. Conner and other people who have concerns and expressed concerns and filed comments on the EIR could raise those issue in that context. But your right that would be in the EIR as opposed to the actual EIR grading permit issuance, currently again absent Commission Spitzer's motion. Supervisor Spitzer's motion.

CHANGE IN MALE VOICE: Yes I think I have had my questions answered. Supervisor Wilson.

SUPERVISOR WILSON: Thank you. I heard some comments from Mr. Conner on Items 1 through 5 in terms with his concern about legality and other things Absent Item 6. as suggested by Supervisors Spitzer. can you comment on 1 through 5 as presented here in the context as it was criticized tonight?

BEN deMAYO: Sure. I should say Mr. Conner and I have worked together on a lot of environmental cases and I have a lot of respect for his background in this area. I think we disagree. I think some of the issues he is raising really come up in the context of his substantive concerns and objections to the EIR He should be raising those at the Planning Commission next week and at the Board at its appeal but he is raising the issues trying to _____ the permit itself

reviewed by the Board and I don't think you can do it in this context. What it would require something in the form of what Supervisor Spitzer which is an amendment to the ordinance allowing an appeal to the Board. I don't think, through adoption of the appeal process for this EIR, you can take a grading permit that a codified ordinance shall be heard by the building official with no appeal to the Board and make it appealable to the Board. You need to change the ordinance to do that.

CHAIRMAN: Okay then Mr. deMayo, the addition of Supervisor Spitzer's amendment adding Item No. 6 is that that modifies it so that this procedure will move through the process as you have described it, it will go through planning and is appealable to us and finally go to the administrator if everything gets approved.

SUPERVISOR SPITZER: His Item, his recommended action No. 6 would then have the Grading Permit itself then come to your Board on appeal. That's the difference of . . Supervisor Spitzer is adding to the procedures would have the grading permit itself come to your Board.

CHANGE IN MALE VOICE. Mr. Spitzer, I guess I would ask since this is your District and your Item, Mr. Elfend was at the podium and he was advocating the approval of the five items, does that organization, whoever he represents, agree with Item No. 6 or have any comment on Item No 6 Your addition, I think their taken a little off guard by, the AIT was their prepared and commented on and supported and then all of a sudden there is an addition to it, would you feel comfortable in asking them what their opinion is in added No. 6 so that Joshua and I know what the both sides . . .

CHANGE IN MALE VOICE: I see Mr. Oliver coming down and before I do that, I would like to clear up a point with Mr. deMayo before Mr. Oliver speaks I just want to clear up a point, if I can? I have no problem doing that, I think its important to reopen that on that particular issue. I would, before I get to far a field, I just want to return to a point Supervisor Smith has emphasized and that is that the Grading Permit decision is made by the Planning Director and or his designee based on some technical requirements and manuals I know it is a lot more complicated then that, but it is fair to say that the Board of Supervisors is delegated that duty to a County Staff member.

CHANGE IN MALE VOICE: Correct, by adopting the ordinance you stated who would be the person to do that.

CHANGE IN MALE VOICE: So under the law though we do, I mean if we wanted to we could hear every single Grading Permit and be the appellate body if we wanted to. But the Board, this Board has chosen not to because administratively its probably a nightmare. What I am asking is that suggestion that I have called now No 6. Under this limited circumstance, not opening pandora's box, but in any event, I think it is pretty extraordinary a circumstance where Mr. Matthews has opened the property owner to re-energize the EIR which is quite old, in that limited circumstance, could we, is it, would it be lawful in your opinion based upon what I have suggested and you and I have talked about this obviously, would it be, does the Board have the authority, the legal authority, to bring back its ability to be the appellate body under a limited circumstances such as where the Planning Director has asked for the EIR to be re-energized.

CHANGE IN MALE VOICE. I believe you could do that to set criteria for when you could be the appellate body for the grading permit

CHANGE IN MALE VOICE: And given what Supervisor Smith has asked you, its technical in nature. If we were to allow that to happen in this circumstance, what would be our function as an appellate body, what would we be reviewing?

CHANGE IN MALE VOICE: I think you would be utilizing the same criteria the Building Official would be in reviewing that permit. Just as now when you hear a _____ use permits or variances you only could utilize the same criteria that the Planning Commission or the Zoning Administrator or whoever uses on a subdivision appeal or something of that nature. Something here, if you made yourself the appellate body, you would hear the appeal but you hear it with those same criteria. You couldn't expand it.

CHANGE IN MALE VOICE: Exactly, okay, but the way I have suggested the ordinance it would go from Mr. Matthews or his designee to the Planning Commission and then if it were resolved there, fine but if not, in that one limited circumstance, it would come to the Board. Is that your understanding, Mike.

CHANGE IN MALE VOICE: Right.

CHANGE IN MALE VOICE. So I will open it up, of course, but Supervisor Smith just to make sure you and I are clear.

SUPERVISOR SMITH. I think I get the picture now The key in my mind is that if we become the appellate body for this appeal of this thing that we can only make our decision based on the correctness or the incorrectness of the public official who said that yes it does meet the criteria. We would have to then interpret the criteria and say yes it does or no it does not meet the criteria So we could only regret it on that basis. We couldn't regret it because we did like the slope or the

CHANGE IN MALE VOICE: Right because you didn't like the zoning.

CHANGE IN MALE VOICE: I think it is exactly analogous. Mr. deMayo, you were involved in this when we had the LAFCO appeal when you and I were involved in on tri-cities. We were just here to assure, as the appellate body, that the process was fair and that it met all the criteria and that's all I am asking. We do not have a de novo hearing, but where we have such a time gap between the original EIR and the new one that we give an opportunity to do what we did with LAFCO. That is all I am asking. Mr. Oliver, sir, did you want to speak to the Board or Mr. Elfend.

CHAIRMAN: Mr. Elfend you have three minutes.

MR. ELFEND: In response to Supervisor Wilson's question in attending tonight's meeting we would of course prefer that the recommendation of Staff including those five Items be adopted as recommended. I think that Supervisor Smith keyed on some of the issues that the grading official had _____ the Board. However we are anxious and would like to have the Item resolved tonight and would defer if it was the desire of the majority to have the matter included as Item six as recommended by Supervisor Spitzer understanding that our counsel is not present tonight there was a personal emergency and he was not able to be here. So, if the world were perfect, we'd like to have it approved as it was recommended but we would defer to the suggestion by Supervisors Spitzer if it meant that we would have it resolved to night and move it on the Commission.

SUPERVISOR SPITZER: Very good Is there any follow up questions by fellow Board Members.

MALE VOICE. If I may, if I understand what you are attempting to do with the recommended action No. 6. It seems to me that that is going to require a modification of the County Ordinances.

MALE VOICE (SPITZER ?): Correct.

MALE VOICE: And that, as you know, is a two step process. So that is going to take some time to do. My fear is that if the recommended action to 5 is adopted and then direction given to County Counsel Staff to recommend to the Board with the recommended Ordinance changes. We probably have open the door for this particular project which is causing us the problem. To move ahead while that Ordinance is being adopted so it would seems to me, that really to accomplish the purpose that I think I hear you saying you would like to accomplish would be to deny the recommended action and give direction to Staff to come back with a difference procedure that would incorporate the changes to be County Ordinances so that the grading permit could be appealed to this Board.

MALE VOICE. Just for the record, I think Mr. Elfend needs to reflect on the tape that Mr. Elfend was the speaker prior to County Counsel. Just for the record.

MALE VOICE Mr. County Counsel let me ask you two things that I spoke with Mr. deMayo about. I think it was his suggestion to me that the Board go ahead with numbers 1 through 5, adopt number 6 with the Board, give direction in that order in order to not delay the Planning Commission's ability to hear this next week. Then do we have to have two readings to change an ordinance.

CHAIRMAN: I think you do normally.

CHANGE IN MALE VOICE For this you would need to.

CHANGE IN MALE VOICE: Two readings. So my question becomes Mr. deMayo, can we adopt 1 through 5, adopt 6 with the direction, that the language that the Board would agree upon, give you direction to agendize it, how does that mess if we could following time frames. Have a first reading at next Tuesday. I know we have holiday schedule. Then I guess we are on the 2nd and 9th. We have a first reading on the 2nd and the second on the 9th.

CHANGE IN MALE VOICE: Theoretically, you could do that if you can get it on the 2nd or you could do it on the 9th and the 16th because you will be meeting on the 16th.

CHANGE IN MALE VOICE: That's fine because the ordinance won't go into effect for 30 days after the second reading so in any event you are going to end up having, it seems to me. If the Planning Commission is scheduled to meet next week that you are going to have to approve this recommended procedure we have this other thing that you think you need to accomplished.

CHANGE OF MALE VOICE: Part of the question, we don't know whether the Commission will conclude the matter on Wednesday or if they will require any further meeting and once they make a decision on the EIR, assuming they certify it, then under these procedures we have a 15 day appeal period for that and then a hearing at this level. so in terms of meshing this times We don't know what they are, but it may very well be that the grading permit wouldn't be ready to be heard by the grading official until half of the ordinance become effective anyway because we wouldn't be able to schedule a meeting before the Board to hear the appeal of the EIR until January in any event. So I think we probably would be able to get both those things done.

CHANGE OF MALE VOICE: Well let me clarify, I don't want to get off the point. Wait one second. Are you saying, if we were to do what we just talked about in your direction within thirty days, your feeling is that we could mesh the time frames.

CHANGE IN MALE VOICE: Right, I think we could because if we put this on the 9th the second reading on the 16th and again assuming the ordinance was adopted

CHANGE IN MALE VOICE: Okay.

CHANGE IN MALE VOICE: Became effective January 15 by the time we actually get the CEQA appeal to your Board would probably January 15.

CHANGE IN MALE VOICE: Let me ask you this, do we have any discretion, well the 30 days is a notice requirement.

CHANGE IN MALE VOICE: Ordinance require 30 days to become effective.

CHANGE IN MALE VOICE: It's a statutory requirement.

CHANGE IN MALE VOICE: I think quite honestly, colleagues, I am comfortable with that, I'm looking in back of my mind that the time frames getting -- I don't what to delay the property owner to get to the Planning Commission because I don't think that that is fair because this is my request and with my colleagues cooperation they said they could live with it. I think given everything, I understand and the time frames, I think we could get these things to go on a parallel track. It would be up to me working with you, Mr. deMayo, to get that ordinance on the agenda as soon as possible and get the 30 days to start running. So given the fact that Mr. Elfend, as a representative of the property owner has stated that objection they could live with Number 6. I will move the recommended action 1 through 5 with the direction on Number 6.

CHANGE IN MALE VOICE: Would you read that again? Its been a long time since we heard that.

CHANGE IN MALE VOICE: Lucky I wrote it down. This is the intent, so in case there is any clean up I don't want to be held to the exact language but the idea is that we direct County Counsel to direct the appropriate amendments to county ordinance or ordinances where there is supplemental in the incident or incident where there is a supplemental or subsequent EIR (given change circumstances under CEQA) to allow grading permit to be appealed to the Board of Supervisors from the Planning Commission.

CHANGE OF MALE VOICE: Okay I will second the motion.

CHANGE OF MALE VOICE: Very good -- thank you.

SUPERVISOR SPITZER: Any further discussion, seeing none, passing unanimously. Thank you very much colleagues. Thank you I think that concludes my portion Mr. Chairman.

CHAIRMAN: Thank you Mr. Spitzer. Okay we move ahead to Item No. 43.

TRANSCRIPT OF

ORANGE COUNTY PLANNING COMMISSION

HEARING OF DECEMBER 3, 1997

[Agenda Item No. 1]

Saddleback Meadows EIR 566 of California Quartet, Ltd. - District 3. Located in Foothill/Trabuco area. Proposes to certify subsequent EIR 566 to allow for development of 705 manufactured single family housing units and a 1.5 acre neighborhood commercial center on a 222 acre site, located on the easterly side of El Toro Road, 1/2 mile sough of Live Oak Canyon Road. Recommended Action: a. Receive staff report and public testimony as appropriate; b. Consider approval of Draft Resolution which certifies Final EIR 566 (Attachment A). (Brantley/Grieman).

Planning Commission Hearing Transcript
December 3, 1997

TRANSCRIPT OF DECEMBER 3, 1997
PLANNING COMMISSION HEARING
ITEM NO. 1

MADAM CHAIRMAN: Mr. Buzas would you like to start us off?

MR. BUZAS: Yes. Item No. 1 is a public hearing on Saddleback Meadows EIR 566 of the California Quartet, Ltd. This is in District No. 3, the item has been continued -- I'm not sure what the date of that was. George Britton is here to give a Staff presentation.

GEORGE BRITTON: Madam Chairman and Commissions. I believe the October 22nd was the last time that we considered this particular item and what I'd like to do is just explain very briefly, describe very briefly what has happened since that hearing and then Ray Brantley and Johnny Ernst will provide some additional technical information for you as a part of the overall Staff presentation. We feel that we had a very heathy discussion in these chambers on 22nd, both in terms of what we and the Staff had presented, the issues that were raised by those who testified, the questions from your Commission so, generally what we have tried to do is to respond to that and to provide further information to your Commission with regard to the project that is before you which as John noted and certainly the Staff Report notes is the recommendation from Staff to certify this Subsequent Environmental Impact Report dealing with the overall project as represented in the Recorded Tentative Tract Map or the Saddleback Meadows property. We have gathered grading information, all the various studies and other information that was in the Planning Office, as well as in our Subdivision and Grading Offices, in one place in what we call a grading information library and that was put together, I believe this box is one copy of that grading library and we tried to disseminate the information as to what it consisted of to those stakeholders involved in the process in invited them to come in at their point of convenience to the offices to review them in as much detail as they might have cared to. In addition, Mr. Brantley met with Commissioner Goacher just recently to review some of the individual comments and questions he had that he had discussed very briefly at our last meeting and generally we and Staff tried to analyze the issues that were raised and provide responses to those and those are largely in the Staff Report itself. On a somewhat separate track, County Counsel, Mr. de Mayo, working in close coordination with our office presented to the Board this last Tuesday evening, the 23rd, the 24th of November, the proposed procedure for dealing with this very unusual situation which is an environmental impact report, subsequent environmental impact report, for a project which has moved

through the County's normal approval process up to the point of issuing grading permits. The last attachment to your Staff Report package is indeed the Agenda Item transmittal that went to the Board of Supervisors, Attachment "E", in which County Counsel and office did recommend a process and the important difference that this represents from what I had described to you on the 22nd is that upon consideration of the testimony and questions and so forth, we recommended to the Board that your Commission actually certify the EIR and then that that certified document once it is certified, would be used by the Grading Official, or the Building Official, excuse me, in assessing the appropriate CEQA clearance for the Grading Permit itself and also the process makes note of the State requirement that when a certification of an EIR occurs by a non-elected body that that certification, not just the permit, but the certification is appealable to the elected body. So, we presented that last Tuesday, or a week ago Tuesday evening, I am sorry to say there was a wide range in discussion by the Board Members and several interested parties who were involved and what the Board did was to adopt that recommendation and in addition to that directed Staff to prepare an amendment to the Grading Ordinance that would provide under very limited circumstances, those circumstances would include this particular project. That under very limited circumstances there would be a provision where the decision to approve a grading permit would be appealable to the Board of Supervisors and further that there would input from your Commission as a part of that process. Next week on the 9th of December, the Board will be considering an amendment, first reading of an amendment to the Grading Ordinance, that will reflect that process, that is to say -- an amendment that would provide under these very limited circumstances for the Grading Permit to be appealed to the Board of Supervisors and although I don't believe the details have been fully worked out, it would be such that your Commission's recommendation on that appeal would be a part of that process. So that essentially, I believe its fair its fair to say, what's happened in the five or six weeks since we were last here, we're prepared today to hopefully respond to the issues that were raised at the last hearing, as I said Mr. Brantley will review the CEQA issues and then my recommendation is that when he's done that Johnny Ernst from our Grading and Subdivision Division make a brief presentation that hopefully give you more information in terms of how the County Grading Permit review and approval, just how that process works and sort of an overall with regard to grading for this particular project. So, our hope is that by talking about these different processes you'll have as clear an understanding as is possible with regard to the process that we're in and what will be happening from here on out, that you'll have those loose ends that might exist within the frame work of CEQA, have a better handle on that and that you'll have a better

understanding of the grading for this project and how the grading permit process works and our hope and Staff's recommendation is that based on that, subject of course to the public testimony, that you will be in a position at the end of the hearing to consider and should you deem it appropriate, certify the Subsequent EIR.

MADAM CHAIRMAN: Mr. Burton may I ask a question?

MR. BRITTON: Yes ma'am, certainly.

MADAM CHAIRMAN: If we were to approve the EIR and recommend one of the alternatives that was listed in the original EIR to us is that an acceptable thing to do?

MR. BRITTON: You want me to answer that?

MADAM CHAIRMAN: Yes please.

CHANGE MALE SPEAKER: Yes. I think your initial role is to determine the adequacy of the EIR and certify or not the EIR and in doing so, I know that there are requests for different mitigation measures or other things you can work with in the structure of the EIR in terms of what you deem adequate to certify. You may also just within your general role as an Advisory Body to the Board of Supervisors recommend that the Board in effect reconsider one of the alternatives -- if you wish But, its not necessary to do that, but if you wanted to you could do that.

MADAM CHAIRMAN: Thank you very much. Do any of the other Commissioners have any questions. Ok. Mr. Brantley I guess the floor is yours.

RAY BRANTLEY: Good afternoon members of the Commission Mr Burton had indicated we've been very busy since the last hearing, but what I would like to do is to address those issues which continue to pop up during this whole review process and at that point give the podium over to Mr. Ernst. Section 2 of the Staff Report deals with "project definition," at the previous hearing and all during the scoping process during the NOP, the actual circulation of the draft of the EIR, the question kept arising -- what if the project at the last hearing many comments were made to the fact that the project is the grading permit and therefore, we need this, that or the other. In our Staff Report, we have tried to go over this particular issue. Specifically, that portion of the Foothill/Trabuco Specific Plan which requires at the beginning of a grading permit, the review process, that an Initial Study be made, be conducted and that that process would determine whether additional information or addition environmental documentation is required. In that, the question is not is it needed for grading, the question is addressed at the project itself. The project then, is the existing recorded tract for 705 units I've also gone over those sections of the Guidelines which Staff feels would have triggered a

determination that an EIR is required whether or not this provision was within the Specific Plan and that is the process of analyzing projects down the line as we do in the grading review process and 15162 provide that where there have been previous environmental document that no subsequent environmental documentation would be needed, unless of course, there are three provisions. One is that if there is new information is available; two, that circumstances have changed, or three, that things that were important or significant new information, circumstances have changed, or that the project itself had changed. Those are three. Our feeling of course is that that whole process would have triggered an EIR anyway. With regard to the grading permit review process, Mr. Ernst will go into that that's Section 3 of the Staff Report. Section 4, the "Grading Information Library," is self-explanatory and we are prepared to respond to any questions as they arise. Section 5 of the Report, "Grading/Geotechnical Features," we have the geotechnical consultant here to respond to questions. I have summarized the features in the Staff Report, but the geotechnical consultant as well as our grading experts are here to respond to any issues or questions which you might have regarding those. Perhaps Section 6 is the section of the Report which deals a lot heavily into the CEQA issues. The question arose whether or not the EIR established grading impacts and of course, the grading impacts are there with the recorded tract and the EIR just simply identifies those impacts. The fatal flaw question is one which arose over and over again and that is the issue of whether or not information submitted with the grading are submitted in conjunction with the EIR was sufficient for a grading permit. This is the fatal flaw argument and that is if the grading permit is the initiating action is that not the project and therefore should you not have precise information regarding that and we feel that that question is best answered if we were to take a new project, consider a new project, what would the County normally require in the process and what we would normally require would be a geotechnical report, but it would not be to the grading permit level we would definitely require grading information, extensive grading information with regard to the way the project is going to look with regard to the topographic features of the site before and after grading and then a quantification of grading on the site and this includes both remedial and conditional grading In this regard, we have felt that the information submitted in conjunction with this project was much more than is normally required. With regard to Commissioner Goacher's question with regard to whether or not the EIR was prepared as only a program EIR and looking back on that issue, we had determined that: (1) the important point here is not whether or not we called an EIR, a program EIR, or Project EIR, but essentially what does the EIR achieve? with regard to the definition, the classical definition of a Program EIR, the EIR that is before you is structured as such, but with regard to all

aspects of the project with the single exception of the commercial center, all the previous approvals have, all the discretionary approvals have gone forth before and therefore, the project, this particular EIR would not stand the test in terms of that definition, so it is a project level EIR. With regard to the public having assess to the grading plans, Mr. Ernst can probably answer that in a lot more detail. As Mr. Britton had indicated we have gathered together our grading information library and there it is on the table before you. There are ten different sets of documents roughly one and half feet thick and the process is still continuing. It is a continuing to make this type of information available to the public, the County has never done it before. We have determined that a grading permit application is a ministerial project with regard to special interest, this was another question from Commissioner Goacher, we feel that there is vested interest in this project from both the perspectives of Abbey and the Vedanta Society simply because both projects, or both developments abut the project and we have identified unavoidable adverse impacts in two categories with regard to them, in the project's relationship with these two uses. That is, the issue of land use compatibility and in aesthetic impacts. There were questions regarding the information provided in response to concerns of fish and game and fish and wildlife. In the Report, I did not indicate that the Department of Fish & Game and Fish & Wildlife were as well as the U.S. Army Corps of Engineers were duly apprised of the approach that was going to be used by the County. County Staff met with them prior to the NOP. We met with them, we knew what was going to happen, but we wanted to apprise them as three Commissioners note, we have generated a lot of information in conjunction with the previous EIR and in this particular instance, we felt that most of that information was transferable to this particular project. We would utilize the worst case scenario analysis process and we already had identified all of the impacts which would be unavoidable adverse. This are of course impacts to coastal sage scrub and the NCCP Program, impacts to coastal live oaks, impacts to the vernal ponds and riverside ferry shrimp and impacts to the wildlife movement corridors. So, in this shaping this process we already knew what the bottom line issues were. We also knew that whether or not the County required the study in conjunction with this EIR which we always, we normally do, simply as a safeguard for the County as well as the developers, but in this instance, we knew that prior to the issuance of a grading permit what approvals had occurred with regard to the EIR then subsequent negotiations between the Project Proponents and the Resource Agency would require that all of these grand packs be negotiated and the mitigation measures be also negotiated. There were several comments to the fact that the recorded tract is simply a piece of paper and therefore you can just modify it like anything else. In this particular

project, we had looked at what are the options with regard to this. One of course is that the legislative body, the Board of Supervisors, can revert assign to acreage. This was something that was previously looked at and the County decided not to pursue. Another method of modifying the subdivision would be for the Subdivision Committee to conduct probably over 300 lot line adjustments whereby you combine lots. These are all recorded lots. Another instance, addressing it would be for the County or some other entity to purchase it and to view it as we indicated in Number 4, and that is to simply retire the recorded tract. If you own the land you can always retire a recorded tract and this is also Number 4. With that, as I indicated, we provided a number of attachments in our Staff Report, we have people from grading here as well as the geotechnical consultant, we have also consultants who prepared the EIR and they are here along with us to respond to any questions which you will have. If not, are there any questions

CHAIRWOMAN LONG: Has anyone come to see the . . .

RAY BRANTLEY: grading library?

CHAIRWOMAN LONG: Yes, the grading library?

RAY BRANTLEY: Commissioner Long, Chairman Long. We gathered this grading library and required the applicant to actually make the various copies. Less than one person per copy of the reading library was reviewed by anyone. As you have in your packet, we prepared a special mailing list for all those persons who had expressed interest in looking at this information, but as it turned out less than five.

CHAIRWOMAN LONG: Thank you. My other question is the alternatives in the original EIR presentation. would they all have similar adverse effects on the, the same adverse effects on the surrounding property and so forth, or would they be entirely different?

RAY BRANTLEY: No. All of the alternatives that were analyzed in this document would have lesser impacts. This recorded tract for the Commissioners that were not on the Commission on the last project 561, in that particular instance, we were able during the Planning process, the general plan amendment. the zone change, we were able to actually move the project during the planning process and the environmental process whereby many of the impacts could be eliminated. In this particular instance, with the recorded tract our options were extremely limited. Number one, we could incorporate mitigation measures where possible inside the existing tract or else they could be done off site Therefore, the number of impacts in this project are horrendous in comparison with all of the alternatives If you would like I can go over the various impacts or the various alternatives that were

previously analyzed at the last hearing. I can go over them one-by-one, or if you have a specific question, I can address it per -- which alternative.

CHAIRWOMAN LONG. Would the two Commissioners that were not present during the first go round on this particular site have interest in hearing any of the alternatives at this time?

COMMISSIONERS: I think we were present.

CHAIRWOMAN LONG. Oh, apparently that's not necessary at this point. We may specific questions later, but thank you very much.

COMMISSIONER: Ray, thank you for taking the time to meet with me as Ray told the Commission, we did get together for about an hour Monday morning to go over all of the concerns that I had put in writing. At the conclusion of that, I think for the most part I can agree with what is said, but I'm still bothered by this question of the Tract Map. In my opinion its still mere _____, nothing more than that. If we, if my opinion is correct, it seems to me that there is whole environmental analysis is incorrect and I would go the rest of the way. So, I see this as a very, very typical point. If this is a sacred instrument, the recorded map, is a sacred instrument then first of all the whole alternatives analysis would be flawed in my opinion because each of those assumes that different project totals, different number of lots, different sizes of lots, different kind of reviews, different arrangement of land use completely. There was no alternative that included this map remaining as it is, Point One. Point two, it finally dawned on me today since around 11:00 a.m that this is not a new matter. I knew it wasn't If you go back to August the 25th of '76, the unanimous decision of the California Supreme Court in Avco v Southcoast Regional Commission, in that, I'll just recite one paragraph: "Avco undertook a number of studies for the development of the tract and proceeded to subdivide and grade the property." February 1, 1973 pursuant to approval and issue for such purposes by the County and Avco had completed or was in the process of constructing storm drains, culverts, street improvements, utilities and similar facilities for the tract as well as for the remainder of the property. Under the County Building Code, a permit could not be obtained until grading had been completed. Avco was in the process of grading at that time and had not submitted the building plans for the tract, nor painted a permanent description and so on. Before that date the Company had spent two million eighty-two thousand dollars and incurred liability of $740,000 for the development of the Tract losing $7,113 per day largely due to loss of anticipated _____, this goes on and on. This was very much a vested, if we were to use that term a very, very vested project and yet the Courts found that not to be validly, the courts in my opinion found that to be a tract that was recorded who had nothing going further. So,

I find that this case and I've got to believe that a lot of the impacts could be mitigated if we were to take the position that Tract is definitely in our favor.

MALE SPEAKER: I could make a couple of comments and certainly deal to either Mr. de Mayo or some of the other attorneys. My vague recollection on the Avco case was that there was a rural race against the effective date of the Coastal act, which I believe caused a whole number of things to be essentially changed once that they came about so, I certainly will yield to the legal brainpower that's sitting behind me. Having been involved in the LCP after that in that area when it was still unincorporated, my very vague understanding was that there was some Coastal Act issues that may have superseded what would be. The other thing that we may not have emphasized as perhaps we should have with regard to the status of the map and so on, is that its been recorded, the landowners in the backland have made it very significant funded infrastructure. So I think that the way we are looking at that that it is more than a piece of paper with precisely drawn lines on it. Its the County system and the normal subdivision, state subdivision map act. In our prospective, the map with the lines on it does have a very significant status because of the point that its in the process and the financial investment that has been made on behalf of that map so that absent the steps which Mr. Brantley brought out on the part of the landowner that the landowner does have a right to proceed with that accrued map. Now, I think in retrospect on this project, explaining the alternatives in the document, perhaps we could have explained them in a context that would have been more readily understandable. But I think the main issue of the project that is to say the map, that the document does make clear in terms of what the impacts are, what the mitigation measures are, to say that clearly their infeasible are in there, which is not to say that your Commission may not want to add or modify those to make them better. But as Mr Brantley said I think the very fact of it is that with that footprint on that piece of geography there are some very distinctly, very heavy impacts, some of those will have to be mitigated off-site in terms of the biology. So that's there is a, that I think from our Planning Department Office is why we would respectfully disagree with the conclusion you have come to.

MALE SPEAKER: Thank you. But I think much of your argument was supporting my argument unless I misunderstood you. If taking the Avco situation, that project was not built the way they intended for its refinement, there were changes made to accommodate the Coastal Act. If this project, if that map on this project viewed as favor of a change at this stage before further environmental damage occurred it is possible that each of those seven vernal ponds that are going to be lost and defined as unavoidable adverse impacts might be safe.

MALE SPEAKER: I'm not disagreeing with that part. I guess my and once again I am very vague in my recollection, but if there were a state-mandated Foothill Commission which totally changed land use law in the state of California in foothills that would override a number of these local divisions than I think it would take that type of extraordinary circumstance for it to be analogous to Avco. That was the point, I think the difference is that the state law changed very dramatically.

SPEAKER: Madam Chairman, I think that'll bring us up on it a little bit.

SPEAKER: I'm no expert on this, but some of us had a common experience recently with respect to land use planning legal vesting, so forth and it was my understanding that from the Avco case and some other one, that we are a late vesting state. The building permit is the final stage at which this is ended. But before that that tract map, that site plan so it can be subject to changes, that would be subject to changes that take place by the local government and the city government and so forth. I would have the same question is this tract map really secure from any other kind of zoning changes and if we're just talking about zone change in this case in terms of a specific plan, we're not talking about a old law or government bureaucracy that they had to go through.

MR. de MAYO: I think Mr. Burton's right, you'll probably want to hear from all the various lawyers in the audience cause I think we all have a little bit of a different spin on this question during the public hearing you'll probably want to hear more about the answer. I think where we are today and your right California is a late vesting state and up until the building permit stage certain rights are not vested until the building permit and substantial construction and pursuant to that building permit. I think what the EIR does though is to assume, absent a reversion to acreage for, and again looking our particular building ordinance and our particular grading ordinance which may not have some of the same discretionary provisions between the other jurisdictions that have litigated this matter in the past is absent those kinds of things that the project, the manufactured homes, the park and the commercial, and that there is a certain level of vesting because of that. Its not say that it couldn't, a train that can't be turned or couldn't be stopped, but at this point where we are that that is the project before us and that it would take some substantial efforts or substantial policy changes to alter that map. So, again I think when you hear the public testimony there will probably be some other testimony on that issue and Mr. Britton and I may want to take another crack at it after we hear everybody else. As you can tell from the correspondence that is, I think Richard did good on what is the quirks on the issue here in terms of the adequacy of the EIR and a lot of it depends on this issue

MALE SPEAKER. Can I follow up with one question please?

CHAIRMAN: Certainly.

MALE SPEAKER: Mr. de Mayo, if the position of this map is correct and it very well may be. If it is correct, it would seem to me that that's probably the only overriding consideration that's even needed for this whole project -- that there's a record map.

MR. dE MAYO: Well, no, I think Staff would still hold that the overriding considerations are the other benefits we receive from the project. You really need to say what benefits there are to the project, not simply that its vested and therefore that's the end of it, because again, there is, it is not a certainty that this project could proceed and I think you do need to make overriding consideration findings.

MALE SPEAKER: Madam Chairman? Please indulge one more question . . .

MADAM CHAIRMAN: Go for it

MALE COMMISSIONER: The response invites the question -- do the other benefits need to be proven up before their claimed?

MR dE MAYO: In other correspondence we received today there's some question about what factual basis you have to have to decide, to make your finding and obviously you need some evidence to make your finding. I can't tell you the exact amount of evidence that you would find credible and convincing and all of that but you do need something other than a bear assertion that those facts and events will happen.

MALE COMMISSIONER: Thank you Madam Chairman and Staff.

JOHN ERNST. Good afternoon Madam Chairman, Commissioners. My name is John Ernst and I'm Chief of the Geotechnical Grading Plan Check Section for the County and this section is responsible for the review and approval of grading plans and geotechnical reports that are submitted along with grading permit applications within unincorporated portions of the County. As a part of that process, we also review the geotechnical issues related to the EIR Reports and that's how we came involved with this. The review process is what it is, it is a review process. In order to get a grading permit, the applicants are required to submit grading plans and geotechnical reports. The reports are reviewed well, first of all, the report and grading permits are submitted to an inspection staff that's in South County, who do a physical observation of the site, along with the plans and reports and they make a determination whether or not the plans truly reflect what's out there based on a visual observation and whether or not the description of the materials or the site that is contained in the geotechnical report

identify pertinent information related to that. That information is then sent back to my staff who do a review of the plan and the reports and this is two different processes. The plans are reviewed by the civil engineers for compliance with the County Grading Manual & Code to make sure that what their proposing is in compliance. The Geotechnical Report reviewed by either by civil engineer, or a certified engineer geologist for the County for the same compliance to make sure that the report contains the information necessary to show that the site will be graded in compliance with the Code and Manual and also whether or not the consultant has evaluated properly the conditions of the site and has sufficient information to draw those conclusions on. Once this information is submitted and approved and has been satisfied then the grading permit process is completed and once the additional clearances that are required from other agencies such as subdivision, traffic, drainage, we get those. Skipping back to the original statement, once an EIR report has been approved, that does not necessitate or give them any validity to pulling a grading permit They still have to go through the process of the review and in the review process its a give and take process because the reviewer will review the data contained in that report and he will write-up a list of concerns or areas where he wants additional information or justification for what has been proposed by the applicant's consultant This information is sent back to the consultant who will review it and respond to it and this may happen once, it may happen three or four times In addition to the meetings, or the review process, there are phone calls that go back and forth to expedite review process. Meetings are held at the County with the applicant, or his consultants or to prepare the grading plans On occasions they will meet in the field to look at certain problems related to the development and its an on-going process, it's not "you submit it and you get it," its a review process that requires a given-n-take of information back and forth between the reviewer and the consultant.

MADAM CHAIRMAN: Thank you very much

COMMISSIONER: I have one question. With regard to this particular site because of the buttresses and the walls necessary in various other things that have to be done to stabilize any earthquake movement out there in that area. Is there an Inspector that is called in other words, does he spend more time at the site during that type of an operation than he would with just a normal grading and compact, etc

JOHN ERNST: Well, yes, any, a more complex job would require more inspection than a simple job I mean if you were grading somewhere out on the flat land that was a former orchard where their removing three feet of material doesn't require as much review as a hillside development

Part of the process that goes on during the grading is that the County has inspection groups and that grading inspection is responsible for making periodic inspections of the site to make sure that it is being developed according to the plan and report and if they are adhering to the County Code.

COMMISSIONER: Okay, thank you.

MADAM CHAIRMAN: Any other questions?

COMMISSIONER: I do have a question and possibly John you may wish to differ. So if I'm asking the wrong person, please let me know. As I'm reading the Grading & Excavation Code there's a section in there on denial of a grading permit and the end of it, reading down to Section B of that it says "if in the opinion of the building official the land area for which grading is proposed is subject to geological or flood hazard to the extent that no reasonable amount of corrected work can eliminate the sufficiency of protecting the property," . . . you can deny it. Can you tell me what "reasonable" would be in a case as severe as this.

JOHN ERNST: Rather difficult for me to answer for you, but I don't know whether I can answer your question -- let me go this way. I don't know whether I can answer it or not, but we have had applications for grading permits where we have asked for information, they have gone back to the consultant, they've come back, they went back again because the answer wasn't provided. The report went away, they never came back so whether or not they couldn't answer the questions that would allow safe development of the site and elected to just forget about the project on their own, I don't know, but that's what I would assume. Now, as to what would be reasonable, I suppose that's like when you get on a jury and they ask what a reasonable man would say.

MADAM CHAIRMAN: Any other questions?

COMMISSIONER: No.

MADAM CHAIRMAN: Thank you very much.

JOHN ERNST: That's all for the Staff presentation.

MADAM CHAIRMAN: Would do the applicant care to address the Commission?

FRANK ELFEND: Good afternoon members of the Planning Commission. Frank Elfend, Elfend & Associates, 610 Newport Center Drive, Newport Beach and first of all, I'd like to thank you all for coming here on a Wednesday. I think today is Wednesday, I know that you all wanted to come back here another day and actually my comments today are fairly brief what we'd like to be able to do is to overview some of the comments that were made earlier. We'd like to introduce our team if you

have any questions of any of the issues that will be raised, have been raised, or will be raised. I'd like to respond to some of the comments that were either in the letter form to you today, or have been discussed today as well and as I'm sure many of you know, I stood up here almost about four years ago when we first approached the Planning Commission and there were three Commissioners who were present today and pretty much will make a very similar presentation. At that time however, I'm sure most of you remember, we were asked and went through a very lengthy process of looking at alternatives for this project which unfortunately were not approved and consequently we're back here again So, I just say that you from a historical prospective. In terms of my comments today, and I'm not an attorney, we have one so I guess I try to think I can put some reasonable prospective on it and try to follow-up on your definition of what is reasonable and there is an attorney here who can answer any legal questions and I guess my initial comment notwithstanding what I have to say here, is that I sort of think as a reasonable person in that when somebody has a property and they have spent a lot of time and a lot of money on it and they have a recorded final map, its not a tentative map, its not going through the planning process. It's not a General Plan Amendment, or Specific Plan Amendment and they've invested in infrastructure requirement and taxes over three million dollars. I think that that means something. My attorney tells me which I agree it has a certain legal significance, but I think to simply describe it as a piece of paper and not having any value, I think sort of loses sight of the reality of a developer who invests that type of money for a project with some level of assurance that their going to be able to pursue it, notwithstanding the fact that they waste three years in trying to change it. But nonetheless, as far as the Staff Report goes, I thought that and the team thought in reviewing it that it was of course a very thorough analysis and addressed those issues that were raised at the October 22nd meeting. I'd like to briefly go over them again in a little different manner. I think their very relevant to the letter that you received today from opposing counsel and also will hopefully address some of the things that will be said later and were said earlier Last time we were here we were unable to have a decision because we couldn't really ascertain the correct procedure and process I think that has been resolved by the Board of Supervisors although we do have some reservations about the process But at least the procedure is clear at least for today as I look at my watch. In terms, that there was a question about the availability of information cause I understood people got up here and were very concerned about not being able to have the information I think we have been informed by the Staff and looking at the documentation before you that there is a lot of information and it is available to the public in a manner which the County's indicated has not been done in the past In terms

of the level of detail, cause each time I read a letter from someone other than the proponent, I recognize that it is a request for additional information, geotechnical and otherwise and your own Staff had indicated as far as the information goes, the information included in the County's EIR in this instance exceeds the level that is normally required so, to me, as a reasonable person, that tells me that there is a lot of information that has been available and its in excess of what you normally would ask for. In terms of describing the grading activity, I think that's some of the information provided by G.A. Nickles, Gerry Nickles who's here today, will hopefully answer some of the questions you had and then there also was a discussion of the type of and there were some questions about the type of controls that are in place on a project of this magnitude when it leaves this level, what subsequently happened and what Staff indicated was that even though the grading impacts of this project are significant that their not unusual and I think one of the things you just heard here earlier is that you asked the question about the grading permit itself and that is, although it may be characterized by some as being catastrophic, its really not. It's not unusual that the County in the context of larger scale projects like this will encounter these types of geotechnical matters that will be addressed in the subsequent processes as was just discussed and then of course, at the last meeting Commissioner Goacher brought up several issues regarding the type of CEQA documentation, the biological issues, the nature of the grading permit approval, which I think Staff has told you is ministerial in nature and the role of mitigation measures which notwithstanding the comments made earlier here for a minute, I'd like to just spend a few minutes on those. on page 11 of your Staff Report, the question regarding the applicability of mitigation measures was asked and in their response Staff indicated the project is a recorded tract map consisting of 705 legal building sites or homes previously approved for the development of the County and then went through the manner in which these could be changed and one of the questions or comments that were asked by Commissioner Moody was referring to the nature of the State of California's inability to change these and I think what I heard County Counsel say was that one of those methods at least, which was reversion to acreage, was actually considered by the Board of Supervisors during the last go around and there was not an affirmative I had to pond them to do so, so that issue was considered, did not move forward and consequently we are back before you today. I will add however, and again put the question of reasonableness on a level playing field here, indicate to you that in terms of this project and as I mentioned a few moments ago there has been in excess of three million dollars of fees, infrastructure costs that have been absorbed to date including, but not limited to, the purchase of the infrastructure capacity, the maintenance and then taxes and there are additional costs as well which last

time we worked on actually was in excess of four million dollars. Also, Commissioner Goacher brought up the point of trying to preserve some of the on-site resources and I think that the Chairman asked a question regarding the consideration of alternatives and how they would address some of the impacts that were addressed in the EIR before you today. In the last effort we had, which we worked very closely with the Department of Fish & Game and U.S. Fish & Wildlife Services, we had a plan to preserve those ponds to a large extent and actually had spent a whole lot of time on that wildlife corridor and those were resolved Commissioner Goacher. Again, unfortunately that plan was not adopted so again we're back here today. So, that is in essence our comments on your Staff Report before I get and spend a minute here on responding to the letter that came in, I believe it came in today from Mr Connor, I would like to at least introduce our team to you and then if your risking enough to ask Mr. Ross a question, I'll introduce him as well, but first and foremost there is Bill Ross, he is counsel to California Quartet sitting in the front row there with his head down. Secondly, is Mr. Doug Snyder. he's with Hunsaker. I'm sure most of you know Mr. Snyder and his amount of work that he's done in the County especially on grading and hillside projects of this magnitude. Mr. Gerry Nickles is here from G.A. Nickles & Associates is to my left He's done work in the County for over 30 years, a few years older than I am and he's worked on over 400 projects a year and he also has significant experience in projects of this magnitude. We also thought that we would bring in here as well today someone who actually would be out there and grade the site in case there were questions about how would you do this, or how would you do that and I hear people saying well its impossible. you can't do it, it's no grading contractor would ever do it, so consequently, we brought Mac Pilon, whose sitting next to Mr Nickles, he's with ACI Contractors, Inc., actually his firm has been involved in grading in Southern California since 1940, well before my time and they have 22 years of experience in hillside grading and of course last, but not least, Mr. Pike Oliver, I wasn't going to forget you and Mr. Mike McKnight. both from TPG would also be available to answer any questions you may have. So that team is available to rebut as appropriate based upon the comments that are stated, or make any other comments as are deemed necessary. My last comment for you today refers to a letter which was received today from Ed Connor and I can again respond to it in a non-legal manner, not being an attorney, but it appears to me that there are three cogent points that are made in the letter. One refers to this whole discussion of the Specific Plan and changes and so on and at least for some of the Commissioners who were not present last time I will tell you that there was a discussion of that exemption in the last go around during the prior process and the County in fact confirmed and if you

would like, I'm sure you've all seen the Foothill/Trabuco Specific Plan that in fact this project has been exempted, is exempted, it was confirmed it was exempted and when we tried to unexempt it because we thought we could change it to make it better that was denied. So, here again we think that the issues have been dealt with and again this is a recorded final map and its not the first time we've been in here. The second issue that is raised has to do with the affordable housing provision, I think maybe that is what Commissioner Goacher was referring to in terms of assurability and my understanding. First of all, the affordable housing issue, the burden of that requirement is on us to comply with it, which we intend to comply with and we understand the County has an ability to monitor that and will monitor that to make sure that that is being meant. That isn't something that really deals specifically with the EIR per say other than its a mitigation, we're gonna comply with it, its a condition and the County's gonna monitor it to make sure that it is in fact implemented. The last issue is the geotechnical information question I'm not sure whether or not there would ever be a time when the sufficient information would ever be provided to the satisfaction of Mr. Connor. However, I think you heard from Mr. Ernst that this is an on-going process and the certification of this EIR is not going to discontinue the information to be supplied and in fact notwithstanding the fact that there has been over four million spent on consultant services and taxes and infrastructure and so on, that there will be geotechnical studies prepared in the future to the extent the County requires them on a project of this magnitude but that clearly for the purposes of this EIR as your Staff has indicated in the Report that the information provided is in excess of what you normally would receive. So, our response to his comments in that fashion I have no other statements to make unless there are any other questions. I believe that we will reserve our right to respond after other comments are made and at that time can further discuss some of the legal issues as I'm sure they will come up.

MADAM CHAIRMAN: Any questions and this time gentlemen?

COMMISSIONER: Yes, please.

MADAM CHAIRMAN: Frank wait, Mr. Elfend.

COMMISSIONER: I have a question. Can you refresh my memory on the status of the property with respect to vesting development agreements and also I thought the County property taxes weren't paid on this property?

FRANK ELFEND: Well, I can confirm that they have been, but probably to answer those legal questions, as I'm not a lawyer, I'll have Mr. Ross come up here and address those for you.

WILLIAM D. ROSS: I will answer them specifically Commissioner and I think I'd like to start

out by saying, responding to your earlier ascertain about the map being a piece of paper, use it for purposes of discussion. We're not claiming that this is a fully vested situation as was at issue in Avco, I think the important distinction between the Avco situation and here is that what was analyzed there were the occurrence of soft costs by Avco. They had not progressed to the point that this applicant had in paying for hard costs or infrastructure, they were actually in the process in constructing it in Avco. That's a critical difference here, that difference, among other things, was documented by the County Planning Director in a presentation to the Board of Supervisors in December of last year when this issue of reversion to acreage came up. But for the participation by the applicant and its predecessors, which we are entitled to rely upon, the sewer system for the entire area would not have been able to go in. So in other words, people are benefitting now that are living in houses because of contributions made by this applicant, so it is much more than a piece of paper, that is one of the issues that would have to be unwound, I think would be the term I would use under both the subdivision ordinance that I reference in the brief response that I came forward with today in response to Mr. Connor's letter. So, there is significance beyond the paper. I would couple my response to comment also on Commissioner Moody's remark "well, isn't this subject to a zone change?" the answer is "yes, it is and I would contrast the case in the County of Sacramento where the developer went in there and said there was actually a taking because of an assessment that he had been paying over and over again, I believe it was for street lighting, so it was for physical infrastructure again, but again nothing had been placed in the ground so to speak and the court there found that there was no basis for making a taking claim on the basis that they had vested because they had made this assessment payment. Again, here in contrast to the situation in Avco, certainly there are soft costs that are associated with the development process that we're going forward with but the important thing that distinguishes this recorded tract is the hard costs and that those would have to be unwound, either compensated or taken into effect in implementation of this recorded tract and quite directly and respectfully why are we here? I think I mentioned that before. If we were not here we would be subject to the criticism that we had not followed the Hamilton Bank rationality in the United State Supreme Court that we were not pursuing all reasonable alternatives for development of the property. That word comes up again "reasonable" certainly, a recorded tract upon which the amount of funds that we've expended is a reasonable development alternative. Why would I say that? well, if it were not, then it would have been justifiably unwound under the procedures for reversion to acreage under both the subdivision ordinance of the County and the Subdivision Map Act Bottom line, are we current on assessments and taxes? Yes. They are done in a very unique way

because of the recorded tract map. We get, at least the last time around, we get billed on the basis of the legal lots. So, we get 705 bills. So that's the response to that question. I would just briefly like to add to what Mr. Elfend said and I think its very important to characterize this project exactly as Mr. Brantley has, that this is a recorded tract map that is to be implemented. One aspect of the implementation is the grading permit and grading plan. We don't contest for one minute that the EIR should not analyze the effects of the grading plan that's much different than going in and waiting through on a issue-by-issue basis on the application of technical standards to the site by the Grading Official, that's ministerial and that is to be contrasted with the situation where there is a difference of experts. If we were coming in and filing anew for a tract map now and saying that there is a problem for example with preservation, say of quantified and known wildlife resource corridor, threatened or endangered species. We would have to come forward then on that basis. There would be expert opinion on both sides and that's subject to analysis. The last issue raised most recently is this plea that there be a further finding of general plan consistency presently. As I note in the communication to your Commission today quite respectfully, that's contrary to the law, has been since 1978, the General Plan consistency for a subdivision approval is done at the time of tentative approval that's Youngblood v Board of Supervisors and that's for an obvious reason, its consistent with the provisions of Map Act, County Code and then has been implemented through the satisfaction of those conditions to get the recorded map So, we understand that, we go by the representations that we've made in this entire developmemt process over four years. Whatever the provision is for compliance, for example, on affordable housing, we will make it. So, I think that's kind of a succinct summary on the legal issues. If there is something that I explained in a way that's inadequate on the difference in the status of the recorded tract map, I'd be glad to attempt to do it more simply, but I think that says from our prospective and based on the monetary amounts expended and certainly the recitations to that effect by, my recollection is Mr. Mathews, and I think he also referenced that summary in a August 11th communication summarizing this entire process that went to the Commission report of approximately 12-15 pages as I recall. That's why we believe we're there, but again we're not saying we're vested as to a building permit, we're somewhere in between I think is a very fair way of putting it. Thank you

MADAM CHAIRMAN: Any other questions?

COMMISSIONER: Yes, Madam Chairman. Mr. Ross I greatly appreciate the thoroughness of your response your always very complete and very much on point, thank you on that. I did have a

question. First of all, is there anything that I need to know that you haven't commented on that in this letter because I only got here three minutes before the hearing?

WILLIAM D. ROSS: Are you referring to my letter, or Mr. Connor's letter?

COMMISSIONER: No, your letter.

WILLIAM D. ROSS: No, I think I addressed the three major concerns that are raised in a series of communications from Mr. Connor. I think it is very important that you accurately characterize what the project is and again, I think that's consistent with what the Staff said and what we have advanced certainly all the way along and I think everything else goes from that. The idea that there is an inadequate discussion of project alternatives with the incorporation of the prior environmental documentation, quite respectfully I don't think its supported by substantial evidence. The substantial evidence is there. We have made the effort to come in with an alternative development proposal for the property, which if you will, carves out a development footprint with respect to the vernal pond as I recall, two of them would be eliminated but Fish & Wildlife then through their procedures through coordination with the section 7 analysis with Fish & Game indicated that mitigation was more than sufficient given the quantity and quality of that resource from their prospective -- an endangered wildlife resource. So, I'm bit mystified by the continued plea in that area. There is, consistent with what Staff represented, a plethora of information and data to support adequate environmental analysis and therefore we feel certification is an appropriate recommendation that this Commission could make.

COMMISSIONER: One last question please In the correspondence from Mr. Connor there is an attachment from a geotechnical consultant, Mr. King, in which there are a number of recommendations which could be considered as mitigation measures . . .

WILLIAM D. ROSS: Correct.

COMMISSIONER: . . that are proposed. A number of which being very logical to me for review. Are you prepared yet to make comment on those recommendations.

WILLIAM D. ROSS: The comment that I would make is to the extent that those relate to the effects of grading and Staff agrees that they should be imposed, we believe that they would be appropriate. But again, there is a very fine line here, you know and I don't know any other way to say it, then to say there are specified standards in a grading manual and in those provisions of the Codified Ordinances of Orange County dealing with the decisionmaking capability of the Grading Official as ministerial. I would not attempt to get into the area of saying on some of those mitigation measures that they are technical and wanting to substitute the judgment of that professional engineer for the

Grading Official that is precisely the kind of action that CEQA doesn't want local government agencies to get into and why it has this dichotomy between discretionary decisions and ministerial decisions. So what I would say is that we would defer to the judgment of Staff on those and if they are applicable mitigation measures we would abide by them. Yes.

COMMISSIONER: Thank you Madam Chairman.

MADAM CHAIRMAN: Thank you. Thank you Mr. Ross. At this time is there anyone else on your team Mr. Elfend that wishes to address the Commission.

FRANK ELFEND: No.

MADAM CHAIRMAN: Okay at this time I will open the public hearing and Mr. Buzas will be kind even to call the people forward who wish to speak in order.

EXECUTIVE OFFICER MR. BUZAS: Yes, well we have one blue slip from the Society with three names so I don't know which order they'd like to come in? Mr. King, Mr. Connor and Mr. Jennings? I believe Mr. Jennings is coming up.

RICHARD JENNINGS: Madam Chair and Members of the Planning Commission. My name is Richard Jennings I'm a monk of the Ramakrishna Monastery and a representative of the Vedanta Society of Southern California. I live at the Monastery so I'm very much familiar with the conditions there in regard to the land movement that we experience and I'm also very much familiar with the environmental conditions that we live under so I do believe that I have some authority in this regard in speaking to you today. I want to emphasize first that its extremely important in this process of considering and approving or not approving the EIR and we simply ask that before any decision is made that this Planning Commission assures themselves that all reasonable alternatives and all feasible mitigation measures have been carefully analyzed. We believe that this has not occurred thus far and since the life of our monastery and the Abbey hangs in the balance we ask you to take the time necessary to make an informed decision as to the serious questions which our attorney, Ed Connor, and our consultant, Ken King and John Birely, have raised and will discuss further today Mr. Brantley in his presentation mentioned two areas of incompatibility with the Monastery and the Abbey. One was aesthetics, the other is land use. If this were the case, we wouldn't be here today. Its precisely because these are not the major areas of incompatibility that we are here. If this were the case, we'd never would have proposed it in the first place and it certainly would have been approved the previous 318 unit measure project would have been approved by the Board of Supervisors. I have no doubt about that. We are here because of the very special circumstances in regard to this project. This project, we

believe threatens the very extensive of our monastery and I believe that St. Michael's feels the same way. Its a very serious matter with us because we live there and as property owners I believe we also have rights. The rights to maintain our property, the rights to ensure the safety of our facility and the right to live as a monastery without the fear of having our buildings and our property tumble down the hill. So, I really that's all I want to say I feel that its a very difficult and perhaps very trying decision weighing on you, I sympathize with you and I'm glad that I'm not in your place. Thank you.

MADAM CHAIRMAN: Thank you for your comments.

ED CONNOR: Good afternoon Honorable Members of the Commission. My name is Ed Connor I'm the attorney for the Vedanta Society, we have spoken before at prior sessions. The remarks that I am going to address myself to, the comments that I will limit myself to I should say, will be the focus on the legal issues that have been raised today and I'm gonna let Mr. King, our civil engineering consultant, talk to you more about the geotechnical issues that we think are still going unanswered, but what I am going to suggest is that we all take a step back, take a deep breath and answer three very simple questions. First, does anybody in their heart of hearts, to look deep into their soul and maybe they can do it in the silence of their soul, if they were to answer this question, what would the answer be? Does anybody in this room really want a 705 unit manufactured housing project to be built out there? I'm including this side of the room in that question and my believe is that the answer is "no " They don't want to do that, we all know it. Staff knows it Staff knows that if they could have druthers, they don't like the access on the El Toro Road, we could improve some many things with this project, if everybody had their druthers we would never go forward with this project. Question No 2, if this project were brought forward for the first time today, would this Commission approve it? Absolutely not. Its grossly inconsistent with the Specific Plan, you'd never approve it if were brought in the door today, so if we know what want, we know what we would do then let's go to Question No 3. Is there anything under California law which prevents this Commission from changing this project today? Anything? Now that unfortunately has been the question that has pervaded this EIR process and a big lie and I choose those words carefully. The big lie that has been foisted on all of us is that you cannot change this map. I say it's a lie because it is so absolutely clear under California law that that map means nothing. The statement was that it was a "piece of paper," that's all it is. The cases say that and its very clear all that you were told earlier was that there's an attorney hired by the developer who has a theory and an opinion that hard costs mean something more than soft costs, all of that is meaningless in light of what the County Counsel said and what Commissioner Moody earlier said. This

is a permit state, there is no permit that's been issued on that property and until there is a permit issued on that property, there are no vested rights. Oh, this Commission can do it another way, in this County you control how it is that a project becomes exempt or free from changes in zoning and other land use ordinances. How do you do that? Two ways. You grant a development agreement, or you grant a vesting tentative map not happened on this project, never occurred. They do not have either of those two things. That's the only way under California law that you free yourself from a change in the zoning or other land use ordinances, or you free yourself from exactions like school districts fees and everything else. They don't have it. Now, the permit which of course they don't have does anyone contend they had a building permit? They don't. They don't even have a grading permit and nor do they have their final discretionary approval, that's another way in the back door. Final discretionary approval. Do they have that? They do not. What are doing here today? We're doing a discretionary approval. That is the second big lie that has pervaded these proceedings. That this grading permit is somehow a ministerial action. Now, it is with great bitter personal disappointment that County Counsel has allowed that statement to be allowed to exist in these proceedings. There is a published opinion that came out 22 years ago by a California Court of Appeal saying that a grading permit is a discretionary permit, discretionary approval, whenever you have discretion vested in the Staff. Twenty-two years ago, that opinion, Day v. City of Glendale was published. Now, do we have discretion vested in our Building Official to decide what to do with the grading permit? Let's look at the Grading Code. What does our own Grading Code say about what discretion the Staff has and if you have discretion, you have a discretionary permit and therefore you don't have your final discretionary approval. What does it say? This is from Section 71821 quote: "the Building Official may require, may, emphasize the word and wherever you hear the word "may" and your a human being you know that that doesn't mean "shall" it means "may." Building Official "may" require plans and specifications to be modified in order to mitigation, anticipate adverse environmental effects of proposed grading projects. He may, under circumstances where the significant adverse environmental effects of a proposed grading project cannot be mitigated, deny the issuance of grading permit and here's the kicker -- this goes right to the heart of the letter I sent "the Building Official may require plans and specifications to be modified in order to make them consistent with the Orange County General Plan, Specific Plan, Zoning Code and other rules, regulations or conditions applicable to the project He may deny the grading permit if the proposed project cannot be designed in accordance with these rules, regulations or conditions The Building Official could say "I would like to see the grading permit and this project changed to comply

with the Specific Plan that's in effect out there." Now, the answer is "no, we're exempt, we're exempt from the Specific Plan, you can't hold us . . ." excuse me, there is no vested right to that exemption. Just as the Avco Court, the California Supreme Court stated, that until you get a building permit, you have nothing. I don't care if you want to talk about hard costs, soft costs, marshmallow costs, you've got nothing without a permit. What are hard costs? are hard costs building out the storm drain system which Avco was doing at the time? The two million dollars that it incurred meant nothing to the Court There was no permit. But, what the Court very clearly said and I will read this, this is the law "it is beyond question that a landowner has no vested right in existing or anticipated zoning," there is no vested right in the exemption that they have. The exemption was given and we all know this, that the Board of Supervisors would not have exempted this project in December 1991 if it had not been in bankruptcy. They wouldn't have this project if it had not been in bankruptcy, but if it had not been in bankruptcy, what would the Board have done? It would have made the Specific Plan apply to this project, it would have put a new density cap on it, it would have subjected it to new district zoning regulations and we wouldn't even be talking about the 705 unit project today. That's what they would have done. Now, this Commission has the right to say in the CEQA context, in the CEQA context, what would the effect be if we were to rezone the property to make it consistent with the Specific Plan, like every other parcel out there is What adverse environmental effects would be avoided? What mitigation measures could be implemented? Do we know that? We do not. But you have the right to request that that be done. You have the right to say let's study what the effects would be of removing the exemption of making it be consistent like everything else. Not only do you have the right to do that, but this goes to the question that was asked earlier by Commissioner Long, you have the duty under State law to do that CEQA says "the Legislature finds and declares that it is the policy of the State that public agencies should not approve projects as proposed, if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. The amendment of the Specific Plan to make this project consistent with it is a feasible mitigation measure, it is a feasible project alternative, it should be considered. I also go on to read some more of the State law which says "when an EIR shows that a project could cause substantial adverse changes in the environment, the governmental agency must respond to the information by one or more of the following methods one, changing a proposed project." You have the right, you have the duty, you have the discretion under State law Section 15002 of the State CEQA Guidelines to change a proposed project It doesn't say if there's a recorded final map you can't do

that, of course not. Two, imposing conditions of approval. Four, choosing an alternative way of meeting the same needs -- exactly what you asked. You are allowed to choose an alternative way of doing this even if it means changing the project. Five, disapproving the project. Now, I believe that if we could ever get, let's even call for an independent legal analysis as to whether there is any legal requirement that would prevent you from changing this project as we stand here today. If we were to get that and someone were to come back and say "you know, there is no vesting here," counsel admitted "no we're not fully vested," he admitted that. If that's the case, and if all we hear now is arguments of counsel as to whose vested, whose not vested, then shouldn't we at least analyze this before we go ahead? Shouldn't we find out whether each time, each time, a mitigation measure that would have been feasible and salutory was discussed, Staff said we can't consider it because you can't change the map. We can't do that because you can't change the map, no can't consider doing that cause you can't change the map. If that premise is faulty and is at fault as I say it is, throw that EIR out the window and start over because that is what prevented them from really looking at this as they should have done under State law and that is exactly what Commissioner Goacher was asking. Now, this brings us to the very important other aspect of this. Not only should we be looking at another alternative which is changing the zoning which happens. You know the Avco case dealt with cases, they cited case after case, some were in the process of building and they rezoned the project and he couldn't complete the building, he said "sorry." That's the law in this State. If we could change the zoning tomorrow, that project goes out the window because they don't have anything else other than a recorded map which is nothing. What your being asked also to do in justifying the unavoidable adverse impact with the massive project is to say "okay, we're gonna close our eyes to those impacts because there are two overriding considerations that we think are great, their going to bring tremendous benefit to County, let's go ahead and approve the project, certify the EIR, let the grading commence because we've got these two great overriding considerations. One, is that it will bring geotechnical stabilization to the property, particularly adjacent to El Toro Road. Two, it will provide affordable housing to the County. 66% of the units are to be affordable. Both of those are completely and totally fallacious, there is no way that any showing has been made that either of those two will ever be achieved and I believe that before this Honorable Commission goes ahead and buys into those two overriding considerations, it should consider whether they are achievable, whether they are feasible and I would ask that you listen very carefully to the Civil Engineering Consultant that we brought here today to talk about the grading. It is important to the Commission because if what their proposing as far as remedial grading goes can

never reasonably be achievable than it is not a valid overriding consideration for you to make a finding based on and also, if the attainment of affordable housing could never reasonably be achieved, if you spending as our consultant estimates $51 . . . a little mobile home just for the grading costs and you think your gonna sell those at an affordable price to meet County requirements? If that is not reasonably attainable then let me suggest that that again is an overriding consideration that does hold water and if affordable housing cannot be achieved, 66% again, that would require them to deviate the approvals that are given and if they must deviate, page 3-20 of the Specific Plan requires this Commission to rezone them. What the Board did with its hands tied in December 1991 said "this project is not consistent with the Specific Plan, but we can do nothing because of the bankruptcy state, but if you deviate one eyelash we're gonna rezone you, we're gonna put a new density cap on you because we don't like this project. If they can't achieve affordable housing and they can't prove to you that they can, you have the right and the duty to rezone. I have also said today, you have the right to take away their exemption which they only got because they were in bankruptcy. No other project out there was exempt from the Specific Plan except Saddleback Meadows because the owner fortuitously happened to be in bankruptcy. He's not in bankruptcy anymore, the exemption is gone. This Commission should consider as an alternative, as mitigation measure, what would be salutory effects of rezoning that property. There is no vested right to zoning. The courts have ruled on that. I'd like to hear County Counsel comment on whether there is a vested right to zoning -- there is none, that was decided -- again 20 years ago. Now, I'd like to ask Mr. King to come up. I'm sorry for the tone I use with this Commission, we are very, very intently interested in this project, obviously, it means the life of this Abbey and to the Monastery and we ask that you really seriously consider what we're about to do. When you consider the answers to the questions I ask. Does anybody really want this? Would you ever approve it if it came in the door today? Is there anything stopping you from changing it now. Thank you.

COMMISSIONER: Excuse me. Mr. Connor. I have a couple of questions for you.

ED CONNOR: Sure

COMMISSIONER: A couple of notes from the last meeting and you had a concern about the process we're using for this project. Are you satisfied with the process?

ED CONNOR: No Sir What has been done, this Honorable Commission has been stripped of its rights under the law. I read you from 15002. The right that you would normally have under the State law, now see, the Board of Supervisors can do what it wants, its a local agency, it cannot change

State law. They have proceeded in violation of State law, its a step in the right direction to make the grading permit appealable to the Board, but this Commission must have the right when it considers an EIR to do these things. To change the project, to do what Commissioner Long said to choose a different alternative, you've not been given that right, that's been taken away from by, for whatever reason I know not, but no I'm not satisfied with that. You should be the Board that considers what should happen with that grading permit because you are given the right to do the EIR, you should be given the right to make changes to the grading permit. That is, after all the project. If there were no grading applications what would we be doing here? Why are we here? We're here because there's a subsequent EIR. Like it or not that's what we're doing now and so, no, Commissioner, I am not satisfied with that because I think that they have turned the system on its head. They put the Building Official on top of you guys and let the Building Official make the decision. I read you what the Building Official gets to do. The Building Official has the right under the Code to require changes in the project to mitigate adverse environmental effects, to require consistency with the zoning, why shouldn't you have the same right, why shouldn't you have the same right? I ask that.

COMMISSIONER: Second question and one of the other concerns that you raised was that the grading library as you see here was not available for review has your representative, or member of your team reviewed this same library.

ED CONNOR: We were one of apparently the five that came in the next day photocopied as much as we could. I have sent copies out to other people who did not then need to come in. We copied the plans, we've got a number of copies and distributed. You will hear from our consultant as to why that box is still grossly deficient. That no where in this nice big four volume set that Mr. Nickles said where is the design for the sheer key? Why aren't we allowed to see them? If this whole project -- 11 million yards will be graded, 8.9 of the 11 consist of remedial grading. That mainly is going to depend on the design of the sheer key. For some reason we're not allowed to see it. I have begged, I have pleaded, I've implored for months, we're not allowed to see it. Apparently, there is some concern that if we did see it, we would point out that it wouldn't work. But, the grading plans you will hear from our consultant Sir, they are not grading plans and I'm gonna let him explain exactly why what we've been given is not what we asked for and what this Commission asked for, but let me call up Mr. King If you have any other questions, I'd be happy to answer them

COMMISSIONER: Thank you very much.

KEN KING: My name is Ken King, I'm a civil engineer and for the past couple of years I've

been reviewing and reviewing the stacks of documents that have been generated and there's a ton of data there. Listening to one of the earlier speakers, I would think, if I believed it. I would think that this was an ordinary piece of property in a ordinary location, its the same kind of property we've dealt with many, many times in Orange County and that's not true. We have three levels of landslide, we have the shallow landslide, we have the intermediate level which is down in the 100-125 foot depth and then we have the deep-seeded ones that are down about 250 feet. This is not normal. This is not an ordinary piece of property. This is in my 35 years as a professional engineer, this is most bizarre proposal I have ever seen. I've seen some pretty rough stuff, but this is the roughest. There are two issues that I consider to be the most overriding concerns. Number one, when this project is completed will the site be stable? for this project site and for the people around it? The chances are that it might be. The analysis by Mr. Nickles does show that it will be stable. The real question is number two, how do you get there and that has been ignored almost totally, there's a lot huff and puff and smoke, but there is no real proof anyway that they can ever achieve that. To achieve that you have to dig these big deep sheer keys in front of the slide plane which is already moving, we know its moving, there's damage on both properties, the Monastery and the Abbey from movement already, right now and we're gonna go dig those deep sheer keys in front. Now, in the latest EIR it talks about well we'll limit the length of this cut to 100 feet at a time I'd like to see a contractor work with that one, but maybe they can. But if that is true, if a contractor can truly work with a 100 foot wide slot at a time and these sheer keys which wrap entirely around the uphill side of the Abbey, the time frame is totally out of wack. You cannot grade this site in 18 months. I took the so-called grading plans and the geotechnical stuff and sat down with two different contractors, heavy equipment contractors who do this kind of work. Both of them came in the same ball park range of about $36 million dollars to grade the site. Now, you gotta remember you're digging sheer keys, 120 foot deep more or less, your dealing with the water that's in those sheer keys We have perched on the site. This is not an ordinary site. This is a very special site and we have people sitting on both sides of it. We have people that are going to buy the home sites that are on this property. I'm concerned about the people sitting on both sides of this property and especially the Abbey. The Abbey is at very high risk, very high risk during the construction operation. We're gonna move 11 1/2 cubic yards of dirt to stabilize this site. That's pretty rough, that's a lot of dirt What I really, I won't belabor this, what I really want to say is the EIR and the geotechnical evaluation are way far divorced from reality. They aren't real, there's a lot of smoke, there's a lot of huff and puff there's piles of data, but the reality is it doesn't work. It won't work.

But because I'm prejudiced on the side that I'm taking, because their prejudiced on the side that their taking that's why I prepared that list of recommended conditions of approval. Let's take it out of my hands, let's take it out of the County's hands, let's have an independent third party, totally independent come in and review this and then let them come tell you that "yes, this can be done and done safely." CEQA does require that if there is risk to the adjoining property you must address it and I say it hasn't been addressed. It hasn't been addressed at all, there's a lot of huff and puff, but it hasn't been addressed. Any questions? Thank you.

MADAM CHAIRMAN: Thank you for your comments.

OFFICER BUZAS: Ok, Bob Bennyhoff.

BOB BENNYHOFF: Bob Bennyhoff of Orange Park, for someone who has been covering this story now for about fifteen, maybe twenty years ever since this started, I've been here longer than some of them. This thing has been a mess. I use the word advisedly since day one. I hope at some point this Commission can find either the legal basis or the guts, put it that way, I'm sorry to use that word, to do what Shirley Commons-Long suggested. I agree occasionally with Frank Elfend and at times I don't but I don't think after what he said and what the lawyer said I doubt if there's a person in this room that wants to see, 705 call it what you want, sitting on that hillside. Now, there's another factor too which I don't think you can talk about, but it exists. There's been a change in the Board of Supervisors. You may remember certain members of the Board vowed that as long as they sat there would never been any projects. There is a different attitude on the Board now and if there's anyway possible this plan can be converted to one of the alternatives or an acceptable alternative I might not know, you can be my guest, where the Abbey and the Monastery would be willing to accept or live with, or even not sue on a smaller project, we'll have to find out. But I think at some point we have to let common sense enter this arena and prevail from that point. Thank you very much.

OFFICER BUZAS: Is there anyone else that would like to speak?

COMMISSIONERS SPEAKING AMONG THEMSELVES REGARDING QUESTIONS.

KEN KING. We were provided with a copy of the grading plan and probably the same plans that are sitting on the table there and they were presented as grading plans to us. Those grading plans show finished grades on the building pads, don't show one detail about sheer keys. In fact, the sheer keys, the remedial grading does not appear on those plans anywhere. That is not a grading plan. A grading plan is a lot more than just finished grades on the building pads. It represents what the contractor must do and all the controls, the specifications for what he must do to achieve the grading

that needs to be done that doesn't even show on those plans. That's nothing but maybe a first draft of a first early copy of finished grades on the pads of what your trying to accomplish. There's nothing in there on sheer keys or remedial grading.

MADAM CHAIRMAN: Thank you.

COMMISSIONER: Mr. King. Did you have an opportunity to go through the other foot and a half of documentation that's sitting there at the desk. Anything about sheer keys in there?

KEN KING: Oh, in the Geotechnical Report there's information about the sheer keys, there's little insert drawings, 11 x 17 sheets of 1 inch = 100 feet vertically and horizontally that define the approximate location of sheer keys.

COMMISSIONER: So there's nothing about the actual construction of sheer keys how its going to be accomplished in that foot and a half of documents?

KEN KING: No, I have a box just like that.

COMMISSIONER: So you've been through this stuff . .

KEN KING: . . . and there is nothing in there. I mean it calls for sheer keys but sort of in a generic fashion It shows where sheer keys will probably be placed. There's a 100 scale map that show little dark boxes where the sheer keys might be placed. The geologic section show where sheer keys might be but there is really no detail, no specification, no information that a contractor could build from -- it's not there.

COMMISSIONER: Thank you.

COMMISSIONER: Chairwoman Longs, may I ask a couple of questions please. Mr King.

KEN KING: I apologize I was slow on the trigger.

COMMISSIONER: No problem. The attachment to Mr. Connor's letter includes correspondence from you and your recommendations for conditions of approval. In the first one your stating in your last sentence that the Plan Check Review indicates any risk to the adjoining property, what would "any risk" be?

KEN KING: Well, if a reasonable rational engineer does a review of it and he does not find the appropriate factor of safety against failure during construction, or after construction, then it shouldn't be done

COMMISSIONER: Is that a scientific evaluation?

KEN KING: Yes.

COMMISSIONER: Ok. You may or may not be the right one to ask on this but I'm still troubled by why the Society granted a grading easement to the applicant, if they didn't think they were going to be improved by all of this.

KEN KING: Excuse me, I don't know about the, I saw on the Grading Plan that it does call for grading over on to the Abbey property but I know nothing about the easement.

MADAM CHAIRMAN: Thank you

ROBERT JENNINGS: I don't know if I can answer that. The Vedanta Society was not granted any easement.

COMMISSIONER: Thank you for the correction.

MADAM CHAIRMAN: I'm going to suggest a five minute recess before we continue and it is 3:20 by my watch, we'll all be back here at 3.25 p.m.

FIVE MINUTE RECESS

MADAM CHAIRMAN: Applicant for his responses to the comments.

FRANK ELFEND: Thank you Madam Chairman. What I'd like to do first of all is to bifurcate the responses and I'd like to make a few brief comments based on the statements that were made. Mr. Ross would like to respond to some of the legal issues and then both Mr. Snyder and Mr. Pilon would like to discuss some of the engineering grading geotechnical issues as to the extent that the Commission has any other questions of any of the other parties, you may feel free to ask as appropriate. I would start out by following-up on a question that was asked by Commissioner Goacher at the conclusion before the recess and that was about a grading easement and although no one has come up quite today at least and has spoke directly on behalf of the Abbey although Mr. Jennings and well as Mr. King and Mr. Connor refer to the Abbey as someone who would be adversely affected by this project and by the grading, I would like to once again, and I can hand-out the copies. We've done it on several occasions, remind the Commission that I'm holding before you here a notarized agreement between St. Michael's Abbey, its on their letterhead and the subsequent notarization and I'll just read you the first sentence because I think it pretty much satisfies the concerns that have been expressed today and that is that it says "Gentlemen" and this is to the Grading Department, Orange County Environmental Management Agency regarding Saddleback Meadows. "Gentlemen: This letter serves to permit grading by Soft Mart Pacific Corporation to our property for development of Tract 10692," (the Tract that is before you here today before was a final recorded map) this serves as an agreement with a provision and I will read that as well "is that the permission granted to Soft Mart Pacific Corporation is assignable to the successors

and assignees of Soft Mart Pacific Corporation, which in this case is California Quartet. There is an existing agreement between one of our neighbors who has participated in this opposition for the grading of this property. It was evaluated, it was reviewed and as one of the provisions, there was title and actually I have a copy of the Grant Deed, where property was provided to the Abbey in exchange for approving the grading which is being discussed today. So, that is, it is with St. Michael's Abbey and it is very relevant to today. In terms of some of the comments that were made by Mr. Connor, I would like to go back to about a year ago or so and unfortunately Mr. Connor was not involved at that time, but I think some of the members of the Planning Commission remember that when we went back and attempted to work out a compromise plan with the community which I think in part is what has been referred to here earlier today that neither the Abbey, nor the Monastery, the Abbey more so than the Monastery would meet with us to develop a consensus plan and in fact in the end, when the matter was coming before this Honorable Commission, we were working with very, very close and the Abbey wouldn't and the Abbey made comments publicly that they would never work with us on any plan. When we were coming to some sort of resolution with the Monastery, they indicated to us that they were advised by counsel not to speak with us and Mr. Jennings I'm sure remembers that any further. So, the fact and I just make this as a point of information from Mr. Connor is that if we could take a step back and close our eyes and go through the process we did and we were unable to develop a compromise cause we couldn't have anyone to work with us on a compromise -- been there, done that. So, its true that that is the reason that we are here today So, I just hope we don't lose sight of the prior effort in that regard. The only other comment that I would make in terms of what was said by Mr. King and I think that it is very relevant in the context of your deliberations that Mr. King came up here and indicated that we needed to have more information and further the process and continue it and go on and so on. What Mr. Connor has indicated based on his theory of the "big lie" which I think Mr. Ross can respond that I don't think it would matter how much information we would provide notwithstanding the fact as I mentioned to you earlier, that your Staff has indicated we provided you with enough information and in fact, more information than you are normally provided with. I don't know whether or not that would serve any purpose, notwithstanding the fact that we think sufficient information has been provided for this level of approval. So, with that in mind, those would take my comments, let me have Mr Ross come up here and then followed by Mr. Doug Snyder and Mr. Mat Pilon.

WILLIAM D. ROSS: Members of the Commission I'll be very direct and to the point. I don't

think there are any "big lies" here. I think I've set out very specifically, the nature of the project that is analyzed in this EIR. The matter that's before you and the exercise of discretion that's well within your authorized powers. I would make the following comments. We disagree with Mr. Connor's analysis of Day v. City of Glendale, the ordinance in that specific situation is far different from that set forth at 7.1.810 in the County Codified Ordinances, they are different. Glendale preceded the Youngblood case. We conceded in our presentation initially that there could be a change of zone on this property, but it has to take into accord the recorded map on which the valid hard costs were incurred. Quite respectfully, in Avco one of the critical issues that the Supreme Court addressed was that the proposed infrastructure was solely for that development. That's not the case here. But for the participation of the predecessors-in-interest, the California Quartet, the entire system could not have been accomplished in that area. Other people have benefitted from the funds expended here, it's a different situation. The key word under CEQA for the evaluation of alternatives is "feasible." Ask yourself, is it feasible to have an alternative, meaning reversion to acreage that was specifically rejected on no uncertain terms by the Board in December of last year. Perhaps it is. I mean, we're in the position where we're damned if we do and we're damned if we don't. We don't think any of that constitutes a "big lie." I think we have over and over again referenced the true nature of this project as the recorded map with these expenditures for hard costs of infrastructure. With all do respect to Mr. Connor, he has special knowledge in this area, he was counsel of record for the developer, the Aliso Viejo Company, fifteen years ago in the matter of Village of Laguna, Laguna Beach v. Board of Supervisors, a reported case, involving the County's decision to certify an EIR for a City of over 60,000 people. To continually maintain that the project is not that of the implementation of the recorded map and that specific provisions of the Specific Plan of which Saddleback Meadows was not the only exempt property, I believe there were three, segues right into a comment also made by a member of the Supreme Court, the most senior member, Stanley Moss, also in a case involving development in Orange County, the Pacific Amphitheater and I'm going to paraphrase it. "It is impossible to rationally discern a set of facts under which the opposition would not have been made aware of the true nature of the project. The Court must be deemed naive if it is asked to believe that these neighbors failed to ascertain the true nature of the project, justice may be blindfolded, but these neighbors did not allege that they were similarly handicapped. We have time and time again emphasized the actual nature of this project. It should be decided on the law, we can restrict and demonstrate the compliance with the Affordable Housing provision that is customarily effected by

recorded covenants on the property. They are restrictions. The issue is there substantial evidence here for certification to occur? that is the matter that is before your Board. If this were something where the Grading Official was not involved in a ministerial decision then why is the County Counsel going forward with the proposed amendment to the ordinance to effect that result so that this Commission and the Board can do that. You don't request a change in the Codified Ordinances of the County of Orange if that condition exists presently. I think with that I would rely on what we've said time and time again before this Commission. We are coming back here for viable, alternative development proposal for this property. We are consistent with the Guidelines and the provisions of CEQA, we would request certification of the EIR. If there are specific questions, I'd attempt to answer them.

MADAM CHAIRMAN: Thank you Mr. Ross.

DOUG SNYDER: Good afternoon Commissioners. Doug Snyder, Partner of Hunsaker & Associates and Mac Pilon of ACI. I brought this plan, this was prepared by Jerry Nickles as far as remedial grading. This is a typical plan in the County of Orange that was prepared by a soils engineer and that's how they direct our design on the Grading Plan which is a 40 scale grading plan which is there. We normally do not show buttresses, sheer keys on our grading plan, it gets too complicated. That's why we have a soils engineer, geologist and we have Jerry Nickles here who prepared all this and that's why it's not shown on that and if you have any questions as far as the Grading Plan, we'd be happy to help you. Mac is here to talk to you about any grading issues, timing, how you grade, flat cuts, whatever you'd like.

COMMISSIONER: Mr. Snyder.

DOUG SNYDER: Do you have a question regarding zoning?

COMMISSIONER: No, I guess the grading expert will probably address this. It pertains to one of the recommendations that Mr. King worked on.

DOUG SNYDER: Yeah, I have not seen that list of recommendations so I don't know, but as far as the grading plan, it's in the County for a second plan check and its a typical plan check process with Pat's group and we'll just go through the normal, it is a unique site there's no doubt about it, but it's nothing that we haven't done in the last 26 years since I've been a civil engineer.

MAC PILON: Good afternoon Members of the Commission I'm the so-called Grading Expert. Let me tell you a little bit about myself I've lived and worked in Orange County since 1965, my experience with the grading business started in 1968 when we constructed the big Canyon Country Club Golf Course in sections of the 57 Freeway and I've been in the business since then. I would like to say

tell you what we don't do. We're grading contractors and we are not civil engineers and we are not soils engineers, but what we are in the business of doing is analyzing plans and reports that are put together by companies like G. Nickles and Hunsaker & Associates and we do pride ourselves in our ability to evaluate those plans and specifications. I'd further like to say that in the 25 years or so that I've worked in Orange County, we've worked with most every civil engineer and soils engineer, the major companies in Orange County which include G.A. Nickles and Hunsaker & Associates and as you know they are two of the most reputable companies in the County. With all do respect to Mr. King and the other consultants, I have no knowledge of his expertise, I'm sure he's a fine engineer, but in those 25 years that I've worked in Orange County, I've never had reason to deal with him or the other consultant that is involved with the opposition of the project. So, but what we do is put heavy weight when we analyze the job -- number one, who is putting together the information and G.A. Nickles & Associates, when we read the report, the 247 borrings which is over one boring an acre we have a high level of competence in that information and of course, we've worked with G.A. Nickles since the mid-70s so we have a right to that competence. The same with Hunsaker & Associates, we've dealt with their firm on numerous projects as we have G.A. Nickles, all over the county and so when they analyzed the job and we look at their plans and specifications, it gives us a high degree of competence in the job I'd like to say that we have analyzed this job, I think very closely and unlike the opinion that has been put forth, we think its completely doable, we think its an unique project, but we think that it's a project that is similar to many that we've done and we don't consider it a project that is extremely risky or difficult. We would look forward to doing the project. What else can I say? Our company, you may know of our company its been in existence since the late 40's. We currently run about 200 pieces of caterpillar equipment, we're probably the Number 1 and Number 2 company in size in Orange County, but we operate throughout Southern California. We have over 200 operating engineers on our staff. We own over a 150 pieces of cat equipment. This year we will move over 50-55 million cubic yards of dirt and we currently move approximately 4-5 million yards per month. Our specialty is hillside grading so this job would be right up our alley so to speak. It would be a project that we specialize in. I would further say that we looked at this job closely and we feel competent that our assureties, our insurance companies, would supply us with a bond that would ensure the performance of this job and also our insurance company would ensure any considerations due to Saddleback or subsidence that we would provide a normal insurance, that we would always provide So, that's just my brief statement.

MADAM CHAIRMAN: What was your name again? I didn't . . .

MAC PILON: Its Mac Pilon and the company is ACI.

MADAM CHAIRMAN: Thank you. Yes, excuse me you may have some questions?

COMMISSIONER: It was alleged earlier that the cost of grading a particular site might amount to $51,000 per site. Is that something that sounds reasonable to you is that in the ball park and consequently that was related to ability to provide affordable housing?

MAC PILON: Well, the amount was $36 million dollars was the number that was thrown out. There is no connection with this job and that amount. I have looked at the budget that was put together and I think its very reasonable, the budget that the developers put together and its no where close to $36 million dollars

COMMISSIONER: Thank you.

MADAM CHAIRMAN: Did you have a question?

COMMISSIONER: It was answered in his presentation. Thank you.

MAC PILON: If you don't have any further questions we would . . .

COMMISSIONER: Madam Chairman I do have a further question but its for Mr. Nickles, please. Its just one question.

GERALD NICKLES: My name is Gerald Nickles, G.A. Nickles & Associates, 17421 Murphy Avenue in Irvine.

COMMISSIONER GOACHER: Mr. Nickles your report as I read it stated that there's no main ground water that is present on this property, but the water that's there is primarily perched or trapped water that's in the ground? How large of a pool do you think that water might be given that you've got both on-site and off-site borings this extensive and then the extended part of the question is what affect do you believe that's gonna have on the wells in that area?

GERALD NICKLES: Well, the groundwater in the area is perched and it is perched because it takes a long time for the water to seep out and because of the numerous landslides on the property many times the water is locked in there indefinitely so it does have a place to go In other words, it may take centuries for water to move 10-feet out of a slide mass through a clay zone that may be adjacent to a landslide which is quite typical and further, the water being perched is combined to two conditions Either sand zones, sandy materials like in a sand zone or in fractured bedrock. As well as in the stream itself, the stream bottom or gully bottoms during a rain storm There would be some

stream alluvium and water in the alluvium itself. But in terms of groundwater supply, the amount of water there is quite nominal. Once it is relieved it probably would never come back. That would be significant if it were original groundwater taken. Because we're talking about the local first water. To the best of my recollection there should be no change even on immediate adjacent properties because we're only wanting to get out enough water to be able to excavate our keys to stabilize the site. Once, those keys are established, the drains are established, then the water will remain saturated where it is or will reach equilibrium because of the new drains being installed. How do we know that's true? 247 borings have been tested, excavated to a depth of 200-feet, our geologists have actually entered the borings down 200-feet, we have actually gone below what's called the water table and the reason that that's necessary is because we wanted to find the lowest more significant slide plain and sample the materials if at all possible. So we had geologist willing to, certified engineering geologist, with over fifteen years of experience, go down below the water table, how do you get below the water table? Its a very simple technique -- you bail the water out of the hold. Essentially, you could pump it, but there are long bucks, a very deep hole, you extract the water out of the hole, then you go down the hole. Now, if you had a groundwater table, you wouldn't be able to go below that level if the water was coming in very fast, we're talking about a trickle. It may takes months to fill up a hole in most cases. We don't know the exact extent of all the groundwater present, but our belief from our experience with tens of thousands of hillside residential lots, is that we have a local perch condition that will have zero influence on drawing down any nearby water well and further we don't see any affect of the water having any environmental effect either from contaminants or erosion effects by disposing this water for construction convenience and permanent effects of keeping the water table sufficiently low to assure both on-site and off-site stability. Thank you.

MADAM CHAIRMAN: Thank you very much. Any questions of Staff?

MR. BRITTON: Just a couple of very general comments for the Commission and I'll stay away from the legal issues. I think Mr. King and Mr. Nickles have given some specific examples of what I as I understand the process to work in as Johnny Ernst had pointed out which is that there's an interim process whereby the materials that ultimately end up justifying and constituting grading permits do not come in and get stamped and goes out, I mean it goes back and forth, the reports are evaluated, the engineering and other Grading Code and Grading Manual Parameters are checked and double checked and if there is some question, either their re-done or it's presented more clearly. So, the material in this library which constitutes all the grading and geotechnical material that has been developed to date,

that is not the Grading Permit. That still, there's a lot of work and as Mr. King pointed out there's some things that certainly need to be understood and bought off by our Building Official and the geotechnical experts on the part of the County before a grading permit could be issued. So, its a progress, its a process that goes through where there's an exchange of information between the engineering professionals or the applicant and on behalf of the County and a grading permit is not issued until we, the County, the Building Official specifically is satisfied that we do have a plan backed-up by the appropriate technical information that will work out in the field and then as was pointed-out its inspected on a very regular basis to ensure that that plan is adhered to and that its working. With regard to the housing items that were raised, we implement affordable housing requirements by what is called a "housing element" affordable housing implementation plan and these are the specifics that detail the facing of a project, the facing of a market rate versus the affordable unit. That is something that will be utilized before anything is built on this project, but the way we deal with affordable housing projects consistent with the housing element is that there is a requirement and that whatever it is 66 2/3rds is a very high percentage as you know, but the applicant has the burden as I believe Mr. Ross pointed out to demonstrate to the County how they will deliver those affordable and those market rate units in the phasing and within the income requirements between the low, the moderate one and the moderate two units that are called for a mixture. So, it is the County's normal process, we have a lot of these requirements its rare that its this high but as a part of the normal implementation of that requirement we will require a AHIP and that AHIP will spell out exactly how that is to occur and we'll monitor that to ensure that those occur and it is up to the developer to meet that or he doesn't move ahead. Lastly, with regard to the list of recommended conditions of approval that we've discussed that Mr. King wrote I first saw those yesterday morning at the Board they were a part of the discussion for another project that was at Board and then they were transmitted for this project yesterday afternoon I guess At first glace, in reviewing them and Pat Stanton and Johnny Ernst have had a chance to look at them today Some of them are covered with, I mean of course, we're gonna do that, of course we're gonna fence and/or patrol so that we don't create health problems, or safety problems. Others are probably more problematic in terms of whether they would be acceptable to our department, but we do think there's probably some good ideas that if their not already covered by our normal conditions of approval and our normal process we're certainly open to including those. What the Planning Director did yesterday was to volunteer for Mr King to sit down with Pat Stanton and Johnny Ernest basically and work through on that project in terms of which ones would appropriately be pulled in and at what

stage in the process and we certainly will do that. Any risk of something that would jump right out at us well, my interpretation of Mr. Goacher's discussion with them is that well any risk as defined during that dialogue is very reasonable, that's not what it says here. So, I think in terms of these as potential conditions of approval of whatever we certainly are interested in working with Mr. King to come up with some bit or system that are redundant and that are workable. So we're certainly open to that as a possibility in terms of plugging into the process at the appropriate time, so obviously he's spent a lot of time and attention and thoughtfulness in developing these and we'd like to take advantage of that. I believe in terms of the notes that I had jotted down, less the legal aspect, but I think their also the main things that I wanted to point out

MADAM CHAIRMAN: Any another questions from any of the Commissioners.

COMMISSIONER: Mr deMayo, based on the information that you heard here this afternoon is your position still the same in terms of our ability to change zoning or is there a vested right to the zoning we currently have based on the map that is recorded?

MR. dEMAYO: To clarify. I am not, Mr. Ross made the statements regarding the vested right that the applicant believes it has in the past and based on the record that we have before us, I'm not willing to concede that they have, what I would say in terms of your consideration of this EIR is and particularly with regard to the language from the grading ordinance that Mr. Connor read. In reviewing a grading application the Official can look at consistency with the General Plan and consistency with the zoning Well, at this point in time and after the Board had the opportunity to change the zoning on this piece of land, the Board did not do that. The zoning on that land currently is for this project. So, given what you have before you and the approvals that have occurred before today, I don't think you have before today, you do not have before you a rezoning. You don't have before you the ability to rezone the property So, I'm not saying that in terms of vesting, I'm not sure its a vesting question, but there is zoning already on the property, there is a recorded map already on the property. There are methods by which that can be changed, either at the applicant's request, or without the applicant's concurrence, but from what you have before you in reviewing this EIR, I think you have to look at the zoning and the entitlements that currently do exist on the property. I hope that answers your question

MADAM CHAIRMAN: But there is nothing that would hinder us from making a strong recommendation to the Supervisor.

MR. deMAYO: Right

MADAM CHAIRMAN: Thank you. May I ask another of you Mr Brantley?

RAY BRANTLEY: Yes.

MADAM CHAIRMAN: The references that you made to affordable housing, those are not a consideration in any of the alternative plans that were considered previously?

RAY BRANTLEY: The project that was before us last Fall for differing numbers, but about roughly 300 that did have an affordable housing requirement that was one of the proposed conditions of approval.

MADAM CHAIRMAN: Oh, did it . . .

RAY BRANTLEY: It was for a lesser number of units. Of the alternatives that are described in the current EIR I don't believe there are but in any event comparing all the alternatives that we've looked through on either process, I believe its safe to say that the number of affordable housing units is highest in the map that is now recorded.

MADAM CHAIRMAN: It would have to be, the total number of units.

RAY BRANTLEY: Not only absolute, but percentage as well.

COMMISSIONER: Madam Chairman. I'd like to follow in that a little bit. I warrant the issue of affordability as almost a moot issue and I wonder how really doable it is in terms of the overriding considerations. When we look at the County of Orange Housing Availability Table and we look at a low unit today for sale, the monthly payments starting for a lower unit at $1311 or we look at the moderate two $1967, those are pretty high and I wonder if we're really in fact really encouraging affordable housing as part of this project. In other words, maybe at the time it was put in there was a real need for affordable housing because the market system was not providing it, today the market system is in fact doing a better job of providing it than the County is because of the particular ratio system we use to establish these. So I really question the whole value of the affordable housing provision in here, especially in terms of the overriding consideration statement.

MADAM CHAIRMAN: Any other questions?

COMMISSIONER: Madam Chairman at what point will we go through the recommended Planning Commission resolution for certification document.

MADAM CHAIRMAN: Whenever your ready to.

COMMISSIONER: I beg your pardon?

MADAM CHAIRMAN: Whenever we're ready to. If your ready

COMMISSIONER: If we're done with testimony .

MADAM CHAIRMAN: Yes, we are. The public hearing has been closed .

COMMISSIONER: I'm sorry I did not hear the hearing being closed, I apologize . . .

COMMISSIONER: Didn't you close the hearing?

MADAM CHAIRMAN: Yes, I closed it. I closed it right after . . . alright I'll close it again. The hearing is closed for the second time. Maybe I only closed it up here? I don't know, I'm sorry.

COMMISSIONER: Alright. If I might then I will go ahead and proceed. On what was previously given to the Commission and I don't know if it was August or September, it was identified as Attachment "A" page 5, excuse me, let's forget that for a minute. Page 11, this pertains to the oak trees and we're talking of 284 oak trees that would probably be lost under this project and the requirement is try to find space on site somewhere to plant some more. When we we're doing Irvine Lake which is here in the County for the dredging and restoration of the capacity of Irvine Lake there were ten oak trees lost and I know Mr. Stanton's aware of this, ten oak trees were lost and four of those ten in the middle of an oak forest the mitigation was $2,000 per tree. Now, it was not part of any CEQA determination but it seems to me like this replacement is a little less than what County might be able to do, so I offer that to the Commission for consideration.

MADAM CHAIRMAN: Cause I'm still fighting to find the right page.

COMMISSIONER: Its page 11, item 3.2, or excuse me 2.3.2.

COMMISSIONERS LOOKING FOR PAGE

MADAM CHAIRMAN: Oh, back here, I see. I'm sorry.

COMMISSIONER GOACHER: The citations pertaining to mitigation for the trees and I've given an option, an alternate way of looking at it without giving you a precise way to handle it. Just because Mr. Brantley is keen on typos as I on page 19 the very first word is misspelled. Again on page 24, there's only four more of these, on page 24, section 2.5 under the "findings" towards the bottom, the proposed project contributes to changing the existing rural setting into a more urbanized setting. That would not be my finding I'd said its very intense urban and would suggest the Commission not adopt what it has been put before it. On page 27, we have under land use 3.1.1. potential impacts and discussion of housing element and general plan. The findings under that, in my opinion, do no support what is discussed in the impacts and then the facts in support of the findings don't support either of those unless they would ask for a re-examination of that, or an explanation from Staff and I'm being knit picky because I believe this thing probably will go to court sooner or later. Page 38, section 3.3.1., it would seem as though the discussion on impacts under water and hydrology should include again, the restatement of the loss of the 7 of the 8 ponds and the one pond is being saved and that the

facts and findings would support the studies, the mitigation measures that would ensure that the one remaining will actually remain. I'm still stagnating with request, one more time from County Counsel, page 73, "Alternatives," I would request County Counsel, one more time to try to give me some guidance in the County's eyes on the paper and map subject because these alternatives are all assuming that the map is a changeable document and yet the arguments presented are you don't violate them.

MR. deMAYO: Right.

COMMISSIONER GOACHER: You don't even have to give an explanation, just tell me what . . .

MR. deMAYO: Yeah, no, that's correct and I think you know you think those are the alternatives in effect their infeasibility is because we don't have the zoning to implement those.

COMMISSIONER GOACHER: Then, I think that this is what this needs to state Madam Chairman, page 79, Section 5.2. Well, actually in 5.1 its talking about this document being adopted by the Board of Supervisors, certified by the Board of Supervisors and actually that's only on appeal and I think this resolution should be the Planning Commission in 5 1. 5.2 it says the Board of Supervisors has identified five major benefits. I'd just strike the word "major" because in my opinion they are not "major" benefits they are just benefits, leave the emphasis out. My last one is on page 85, 22 affordable housing opportunity. I'm one of those that shares the desire to see the burden of proof stated now on the affordability aspect I'd like to see that it can be done before the entire site has been graded and then you find out that that rational is no longer valid. Thank you Madam Chairman

MADAM CHAIRMAN: Any discussion and did you have any corrected verbiage for those points that you have made?

COMMISSIONER GOACHER: Yeah I do On the oak trees Let me go back and find that now

MADAM CHAIRMAN: On page 11.

COMMISSIONER GOACHER: Thank you On the oak trees I'm suggesting that a payment or fee into a Conservation Replacement Fund be considered and I'm not phrasing it as a mitigation measure but that is my recommendation That would be equally effective, or more effective than this program. The fund that was previously required by the County was specified as to location and the agency who received the money it was all very, very _____ and you can probably correct me if I'm wrong on this but and it went into recognized forest programs. On page 27, back to that one, without

knowing what the housing element of the General Plan precisely says it would not be possible for me to make those findings here and I'm just asking Staff to do that. It's talking about in the findings, upon approval and adoption by the Orange County Board of Supervisors the project will be consistent with the County's General Plan designations for the project site and conform to the Avco adoption of what and approval of what is the question that remains and I don't know what that is. Today, we've heard about it more they didn't have to come forward . . . I'm sorry.

COMMISSIONER: Mr. Britton and I are kind of looking at each other, I think that's gonna require the Board approval of the agreement that they put affordable housing on site. If you want . .

MR. BRITTON: we could craft some language that would . . .

COMMISSIONER: . . . right and I think we then need to follow-up in the mitigation.

COMMISSIONER: Just for the record then since it was asked again on page 24, my recommendation was change the wording for more urbanized setting to "intensely urbanized setting." I would want a statement, I don't have it crafted on page 38 on water hydrology that would again state the loss of the 7-8 ponds, one of the eight will be saved and that the mitigation measures facts in support of the findings assure this survivability of that final pond and that would be it. Thank you.

MADAM CHAIRMAN: Thank you. Your dedication to the finite details, obviously a lot of time was spent Any discussion gentlemen?

COMMISSIONER GOACHER: Thank you it is my district. My position remains that, in my opinion I don't believe that we've done the correct kind of analysis based upon previous court cases. I tend to agree to agree with many of the arguments presented by Mr. Connor. County Counsel however, is directing me in a different direction and I will not violate what County Counsel suggestions might be therefore, if this analysis, if we cannot ignore the lot lines and protocol has been followed, I believe that testimony has been so extensive and so on-going that their continuation of this would not shed enough body of evidence to change what we have before us and I would suggest that we go ahead and certify this document at this time, subject to the changes that are being made and that is not a motion, its a recommendation at this point for conversation.

COMMISSIONER: I tend to agree with Mr. Goacher. I think we've been over this, Commissioners before we both arrived have been over this, Staff I think has done an excellent job in trying to deal with a very, very rough situation and I just don't think that continuing hearing on this is going to get anything more than what we have today. The documentation seems to be in order and I

don't see an overriding, you know, anything that should hold us up on this at this point.

MADAM CHAIRMAN: I would like somebody to put it in the form of motion so that we can amend and/or . . .

COMMISSIONER: I'd be happy to do that, now the only thing I'm a little concerned about and I'd like to have something . . . I'm not happy with 705 units and I think Mr. Connor's question to us were very to the point and I guess I'm not sure if we do the environmental impact report separately from a recommendation to the Board or do we do it as all one.

COMMISSIONER: I think I would do that separately.

COMMISSIONER NIELSEN: Separately. Okay. Well then to get started off I would move that we certify Environmental Impact Report No. 566. That would be a motion.

COMMISSIONER MCBURNEY: Second.

COMMISSIONER MOODY: Madam Chairman I'm not going to vote for the motion I would like to see this thing move on and get settled one way or another, but at some point in time if we recommend certification I'm gonna have to go into my Supervisor's office and he's gonna ask me why I recommended certifying this? considering a look at the statement of overriding considerations in particular and in taking a look at those, its saying that there's evidence that the benefit of this project outweighs the adverse impacts and I cannot stand there and tell him that that the project because of the grading its going to do to the neighbors and the affordability of the housing that it's gonna provide that those benefits somehow outweigh the adverse impacts. I could not stand there and tell him that. It could be, I think Staff has done a good job on this report, it could be that you'll never be able to get a better statement of overriding considerations Maybe if affordable housing were needed right now, I might be more sympathetic to that, but I cannot support it because of that.

MADAM CHAIRMAN: Am I correct in assuming that if we do not approve the EIR then we cannot make the accompanying recommendation to deny this as a project, but would strongly suggest one of the alternatives. Must we approve this before we can do the others.

SPEAKER: No I don't think you need to do that, you could just make that recommendation in your general advisory capacity to the Board if you wished.

MADAM CHAIRMAN: But then would a new EIR have to be done?

SPEAKER: Well, at such time as that. If the Board took you up on that recommendation and instituted a zone change then maybe you could go back to the old EIR, or this EIR, or whatever

MADAM CHAIRMAN: So, we could refer today, we could revert to the prior EIR.

COMMISSIONER: Let me ask you a question. If that were the case, we didn't certify this Environmental Impact Report today and then we made a recommendation to the Board, the Board didn't do anything, where does that leave the developer?

SPEAKER: Well, right. The two things are not tied together you do have to make some decision on this EIR.

COMMISSIONER: We either have to certify . . .

SPEAKER: You have to make some decision on it right. You just can't leave it in limbo, but those two items are not necessarily tied together.

MR. BRITTON: I believe if your Commission decided no, the EIR is faulty, then what I believe we would need to do is find a way to eliminate those faults in terms of a CEQA document. So, I think we and the Staff and the consultant team and so forth should you decide not to certify it we'll take you guidance in terms of those loose points and bring it back because we have a grading permit application, that does not have adequate CEQA clearance, now this is the vehicle that we have been moving through to meet the requirements of CEQA. So, I agree with them, I think should you want to recommend a different type of use on this property to the Board, as I see it that's an independent action from the CEQA process that we're in now, and I agree I wouldn't think those would necessarily be related and should in fact be separate.

COMMISSIONER: Madam Chairman certainly the Zoning Code could never have anticipated this occurring but it's my reading of section 79151 of our Zoning Code that the Planning Commission can initiate that action right this minute if they want a rezone of the property, or a change of zone on the property if we want. Forget the recommendation to the Board.

SPEAKER: Right, or you could do that. You could initiate a zone change given the history of the fact that there was a zone change a year ago that went to the Board, you may want to do it in the form of a recommendation as opposed to an initiation, but you could initiate it if you wish.

COMMISSIONER: I'm highly concerned though that, if I may continue, that our overriding considerations are just merely a very pierceable veil and could be challenged pretty easily over turning the certification. I would like to see while we may vote today, I think the final resolution should come back for a second vote though if that's possible with a strengthened overriding consideration.

MADAM CHAIRMAN: So you saying subject to the modifications that you had suggested

COMMISSIONER: Oh, I don't think I even got into that area because I was so strong in my belief that those alternatives were meaningless based upon the map issue, no, I don't think I even got into the overriding considerations. Right now, the overriding considerations are we're putting in affordable housing 66% and as Tom noted; its hardly affordable its just market rate is what it is under that condition. There's drainage system improvement, that's the second reason and El Toro Road could be widened, that's the third reason. There's a geotechnical instability present that would be corrected and a regional lengthy trails could be completed. That doesn't seem like much in the way of overriding considerations for the environmental damage that we're identifying in this document. I'd love to see it strengthened.

MADAM CHAIRMAN: I don't know what you want done?

COMMISSIONER: If that were the case, should it be continued for Staff to come up with better or different language. I understand what Commissioner Goacher's saying.

SPEAKER: I think those are the items that Staff identified as being the considerations if your Commission feels that those are inadequate overriding . . . again, this is a balancing act you have to make. If you don't believe that those are sufficient to override the environmental consequences of the project then you need to ask Staff to go back and look for some other ones but I don't that Staff has been able to find any other overriding considerations other than the ones that are identified.

COMMISSIONER: How about the obvious one there's a map there that has become a legal obstacle to this. That is the consideration. We've been over that three times.

MADAM CHAIRMAN: May I state what I think this Commission has in mind. I think this Commission would like to go back to one of the alternatives and I would suggest the Staff alternatives, the recommendation of the Staff Alternative 4 in the Volume 1 of the Draft Subsequent Environmental Impact Report and in order to do that, what would we have to do Ben?

MR. deMAYO: You'd have to amend the zoning, do an area plan and all those things that came before you before. I guess the concern is do you . at this point with regard to the EIR before you if you want to add an overriding consideration regarding the fact that there is a map recorded on the property and the fact that, we could work on some language with regard to that to add something about the benefits of implementing that recorded map I think that's what we'd be doing, but in terms of going to Alternative 4, if you want to proceed with that, I think that's your recommendation to the Board that you suggest to the Board that you recommend that Alternative 4 be initiated and see if the Board has a different position on it than I mean there are three new members on Board from the time

that this was considered before.

MADAM CHAIRMAN: You know I am personally very much in opposition to 705 mobile homes being on that site. I think it would be a travesty, an insult to the neighbors. I would love to see the developer have the opportunity to reasonably develop the property and I think that the Staff recommendation is a reasonable alternative. I would like to ask the developer if they would approve of our making this recommendation to the Board?

PIKE OLIVER: Good afternoon Madam Chairman and Members of the Commission. My name is Pike Oliver, 1601 Dove Street, Newport Beach.

COMMISSIONER: No, we've asked for his opinion Sir.

PIKE OLIVER: TPG Management here on behalf of California Quartet. Our instructions at this point are to proceed with the existing entitlements after having made a substantial effort in the past to bring before, which we did, an alternative which this Commission at least as far as the development area was concerned did recommend to go forward to the Board and as you know and as we've discussed, the Board was not able to reach a majority vote on it. Its very difficult for me and I really haven't had the opportunity to speak with the owners at this point after the substantial expenditure of funds. I'm not recalling, at the moment, what we've spent over the last three years . . .

MADAM CHAIRMAN: We recognize you've spent a lot of money.

PIKE OLIVER: Not to mention the passage of time. I would think that if this Commission would like to see the alternative go forward and we certainly stipulated in the past that the Staff alternative was a feasible alternative, that develop area was a feasible development area. I would suggest that in terms of fairness to us and the point at which we're in the process and the time that has passed, knowing the uncertainty of where that might end up and certainly it didn't end up with a positive result before even though this Commission recommended it. I would ask that you go forward and certify the EIR on the basis, as I think Commissioner Goacher and maybe some others expressed that we had certainly adequate information presented and reviewed on this project and we have been through a preparation process before wherein an EIR was not certified. We, in fact believe it should be certified and in fact have litigation pending on that very issue. So I believe the only fair thing to do in fact, although I can let Mr Ross opine . . .

MADAM CHAIRMAN: No, I ask for one response.

PIKE OLIVER: Well, I believe the only fair thing to do and the legal thing to do would be to go ahead and certify the EIR as a separate action and then we would work with you, if we can

continue to work forward on that and process where we are under existing entitlements we'll certainly cooperate in bringing the material information forward necessary for the Commission to bring forward to the Board a recommendation on the Staff alternative again, but I would ask you not to hold us up at this point and to require us to wait and see where that goes and then if its not successful to have to come back and reinitiate this process. I just don't think that would be fair at this late date.

MADAM CHAIRMAN: Thank you for your comments.

SPEAKER: If I could make a suggestion.

MADAM CHAIRMAN: No, not at the moment, no, I didn't ask you. Thank you. Just a moment I want to ask Staff to respond here please.

MR. BRITTON: If the Commission would like us to revisit the statements of overriding consideration in light of what has been discussed both since the public hearing was closed and in these recent things, we can certainly do that and I think that we could return with that exact language that and have exact language that you could review prior to taking any final action. I'd recommend if that's your wish that that type of direction would be something to which we could respond and then you will have something very tangible in terms of did we understand as a majority of you is and then secondly, also if it is the wish of the Commission at that same time we can put together a draft letter or draft communication that might go from your Commission to the Board essentially putting on paper what I believe the Chairman has mentioned or whatever, that is to say on a separate track recommending that the Board might want to reconsider this and the recommendation being based on these factors we could once again give you something to which you could respond in terms of did we capture the Commission's sense or not. So, I would just offer that as one possibility that we could come back with two pieces. One related to this EIR and the second related to a possible communication from your Commission to the Board on the broader issue of what type of project do you feel is better suited or best suited for the property.

MADAM CHAIRMAN: Alright. I personally and I'm speaking as an individual would like to see the language much stronger than we think you ought to consider this. I mean I would like to say its tremendously important to that whole area in my opinion and I think it should be very strongly stated.

COMMISSIONER: Madam Chairman.

MADAM CHAIRMAN: Yes

COMMISSIONER: I'd like to see us proceed that way as well. Let's take care of the EIR one

way or the other, either getting some better language in the overriding statement or taking care of the whole thing today. Because if we make a recommendation, first of all the Board has got to certify this whole thing, we don't know what's gonna happen there. We get into these choices here, 4 or 5 choices, you know we're gonna get into some discussion about grading differences and open space differences, you got to remember we had 3 or 4 hearings on that itself and to make a decision here just arbitrarily I don't think would be right. So, I agree with Mr. Oliver and Mr. Britton here that we go that sort of direction. Do the EIR now.

COMMISSIONER: Maybe I can just clarify a couple of things on my motion. Number one, all the additions that Mr. Goacher made I would include in my motion, number two, I have no problem amending my motion or change my motion to include an additional conditional of overriding consideration that you suggested and I think we can do that. I think it should be in there. The other conditions that are in there are the other overriding considerations I think are there. I agree with you, Mr. Moody that affordable housing in Orange County today is a joke, but it is a fact and its law and we have to abide with it and those are criterias we have to abide with and I don't think there's anything wrong with leaving them in there. I don't think anybody in this Commission wants 705 units out there. I don't think anybody in this audience wants it,

MADAM CHAIRMAN: I don't think so either.

COMMISSIONER: . . . but the fact is still this environmental impact report has been prepared, it is complete, as complete as I think we're ever gonna see and I'd like to see us move along on it and if you would like to come up with some wording today on that additional condition of overriding consideration I'd be willing to put that in a motion.

COMMISSIONER: I'm sure the second would be to concur.

COMMISSIONER: Yes, I would concur.

COMMISSIONER: Then at some point we'll send along a separate general statement that we don't approve of this project.

MR. BRITTON: It'll be as strong as you want it.

COMMISSIONER: Madam Chairman I would ask if George and Ray might be able to assist on this I think as we were nodding to one another there was at least a belief of concurrence that that language is achievable pertaining strictly at this point to the overriding consideration that would include the legal consequences of the record map. How that guides our procedure, I don't have that magic language.

MADAM CHAIRMAN: Would you be willing to, would we be willing to put this to a vote subject to their modifying the language. I think they understand the intent of your concerns.

COMMISSIONER: I'd rather see it myself in front of me first personally.

MADAM CHAIRMAN: Well, then lets try to word-craft it now.

COMMISSIONER: If I feel its adequate I would support it.

SPEAKER: Well, perhaps if I might, cause I again don't want to get into a position where we conceded . . . but maybe the language could be something such as "the additional overriding consideration is that there is a recorded map on the property, the applicant has asserted vested right and that an approval of the project would allow for implementation of the project to proceed without and creation of housing without additional costs and litigation to the County and to the parties. Although there is other litigation involved obviously but litigation related to the potential vested right -- something of that nature perhaps? I don't know if that what everybody had in mind.

COMMISSIONER: That would satisfy me. Thank you.

MADAM CHAIRMAN: Are you?

COMMISSIONER: Do you want to add that to your motion Sir.

COMMISSIONER: I'll add it to my motion.

COMMISSIONER: I'll second it.

MADAM CHAIRMAN: The other modifications that you had suggested?

COMMISSIONERS SPEAK AMONG THEMSELVES

SPEAKER: The overriding is that it implements the project and avoids potential litigation regarding vested rights.

MADAM CHAIRMAN: Are you okay with that Mr. Moody. Everybody satisfied.

COMMISSIONER GOACHER: I'm satisfied with that. I'd like to offer one amendment please simply because I forgot to discuss it before the motion came up and that pertains to the recommendations from Mr. King. Specifically, number 2, 3, 4 (a) - (e), I would like to have those added as mitigation measures in the document.

MADAM CHAIRMAN: You were not satisfied with the earlier statement that that Staff would look at its meeting with Mr. King to go over those.

COMMISSIONER GOACHER: No Because there is nothing binding on that. So that is my motion if there is a second I'll give further explanation otherwise I don't want to waste everyone's time

SPEAKER: Which numbers were they?

COMMISSIONER GOACHER: Should be number 2 (a) through (e), No. 2, No. 3, 4 (a)-(e).

COMMISSIONER: I don't think Staff would see a problem with that.

COMMISSIONER: I don't think the client has an objection to them either. If they are in agreement with the County, but if we implement them their gonna be there.

MADAM CHAIRMAN: You think their okay?

COMMISSIONER: You want them in there?

COMMISSIONER: Yes, I do.

COMMISSIONER: Well, I'll second it. I'll tell you what I'll just amend my motion to include those items in there.

COMMISSIONER: Yeah, that would go around fine.

MADAM CHAIRMAN: Alright is there any further discussions. Are we ready for the vote then. All those in favor please signify by saying AYE.

COMMISSIONERS: AYE!

MADAM CHAIRMAN: Are there any opposed? The motion is unanimously carried.

SPEAKER: On the other parts, what do you want to say as far as, do you want to say Alternative 4 is that what your saying, or do you want to say a number, how detailed do you want . . .

COMMISSIONER: Why don't we just make a blanket statement if we start getting into the alternatives now we're gonna be here until 9:00 and not even get a break. I think we make a blanket statement at this point and expect that these people will at some point come back to us with a proposal and bring it all out in a couple of hearings.

MADAM CHAIRMAN: Well, there's a good way to put that sentence. I would like to see them look very hard at the Staff Recommendation.

COMMISSIONER: Right I would too.

MADAM CHAIRMAN: Your not in agreement with that?

COMMISSIONER: No. I would not be in agreement in pursuing of them and recommend any them right now

COMMISSIONER: Well, I think you have to. I think we have to give them some kind of guidance. I don't think we want to tell the Supervisors here's four things, study them and tell us what you want to do.

COMMISSIONER: No, their gonna approve the EIR, it'll come back, a project will come back here to us, just like it did before. We'll look at all four of them probably in a very careful consideration situation and decide on them.

COMMISSIONER: If the Board doesn't react to our letter I don't know if the projects gonna come back. I think we're on the road.

MADAM CHAIRMAN: I think we got to go for it.

COMMISSIONER: Tom, we had an EIR along with a project that I think was acceptable to the developer and acceptable to Staff and I think that all of us looked at it in a favorable fashion and I think that that probably should be something that we should start with. If the Board feels that that isn't applicable, I'm sure their gonna tell us why.

COMMISSIONER: No, it was a different Commission as you recall we didn't approve that one. There was only two votes for it. I just don't know whether everyone really appreciates what their voting on. The Alternative 4 has a great deal of grading and that's 6.3 million cubic yards of remedial grading and that not too much different than what's involved there.

COMMISSIONER: I don't want to get into that kind of discussion. We're choosing one here, we making a zone change on the property right now. I don't think we should be doing that arbitrarily like this and the applicant wasn't _____ either. Well, that's not what I heard when he was up here. He said that he would like to have us act on it today.

COMMISSIONER: On the EIR and we have.

COMMISSIONER: We have to set the Board in a certain direction . . .

COMMISSIONER: We do, but I don't think we have to do it now.

MADAM CHAIRMAN: Well, we appear to all have a difference of opinion.

COMMISSIONER: Tom, I may be wrong but I think we do because we're dealing with an EIR that has very specific alternatives in it and I don't think that we can take that document now, given once again we're locked in on this map issue.

COMMISSIONER: The grading permit is what generated this EIR really. It wasn't one of these alternatives.

COMMISSIONER: But that's where we wound up though regardless.

COMMISSIONER: All I'm saying is if we're gonna pick one right now, we're gonna pick it arbitrarily I don't know whether everybody's really studied those four alternatives that much

COMMISSIONER: Well, I think we looked at them pretty seriously.

COMMISSIONER: I think three of us have.

MADAM CHAIRMAN: Spend a lot of time.

COMMISSIONER: But we'll take your expert advise. Alright I'll make a motion that we address a letter to the Board of Supervisors highly recommending the previous Staff supported development and I think it was 280 . . .

MADAM CHAIRMAN: No, 299

COMMISSIONER: 299 homes and the EIR accompany such develop in the Commission's opinion this would be a more favorable way to go with this property . . .

MADAM CHAIRMAN: and the surroundings and the neighbors . . .

COMMISSIONER: affecting the surrounding properties.

MADAM CHAIRMAN: and I will second that motion. Any discussion? Any further discussion? Ready for the vote then? All those in favor say AYE!

COMMISSIONERS: AYE!

MADAM CHAIRMAN: Those opposed?

COMMISSIONER: No.

MADAM CHAIRMAN: The vote is 4 to 1 in favor of recommending Alternative No. 4 and the Supplemental EIR.

END OF TAPE

Board of Supervisors Hearing Transcript
December 9, 1997

TRANSCRIPT OF THE ORANGE COUNTY

BOARD OF SUPERVISORS

HEARING OF DECEMBER 9, 1997

[Agenda Item Nos. 43 & 56]

Under General Administration: County Counsel - Consider First Reading Of "An Ordinance Of The County Of Orange Providing For Appeal Of Certain Grading Permits" -- All Districts

Public Hearing to Consider Appeal Filed By Aradi, Inc. Of The Planning Commission's Denial Of Use Permit PA97-0086 Proposing To Allow A 200 Square-Foot Freestanding Pole Sign on Saddleback Meadows (Continued From 10/21/97, Item 80)

TRANSCRIPT OF DECEMBER 9, 1996
HEARING BEFORE THE BOARD OF SUPERVISORS
ITEM NOS. 43 & 56

ITEM NO. 43

CHAIRMAN STEINER: Item No. 43 Madam Clerk.

CLERK DARLENE BLOOM: Yes. Under General Administration, County Counsel, consider the first reading of an ordinance. The title of that ordinance is "An Ordinance of the County of Orange Providing for Appeal of Certain Grading Permits."

CHAIRMAN STEINER: Thank you very much colleagues this is all districts item. I recognize that I was out of the State last week when this item was heard. There are requests from two individuals to speak to Item No. 43, Christine Deemer first from BIA and then Kevin Kenny.

CHRISTINE DEEMER: Good morning gentlemen. I appreciate the opportunity to comment. I'm going to defer to the Chairman of our Local Government Affairs Committee. I am Christine Deemer, BIA, Orange County by the way. I do want to indicate that for the record we did touch base with each of your offices late yesterday to indicate that we had just received the language for this amendment to the ordinance and that we do have some concerns which I'd like to defer now to our Chair of our Local Government Affairs Committee, Mr. Kevin Kenny, to speak to you at this point.

CHAIRMAN STEINER: Thank you very much Christine. Kevin go right ahead.

KEVIN KENNY: Thank you Christine. Mr. Chairman and Members of the Board. Kevin Kenny. We have seen this ordinance just yesterday, we have some concerns I can go into them in some detail, but at this time we would request a continue in order to allow us time to work with your Staff. We just think that there could be a problem with the application of this and be a detriment to a legitimate project.

SUPERVISOR SPITZER: Mr. Chairman, can I speak to this?

CHAIRMAN STEINER: Yes. Go ahead Supervisor.

SUPERVISOR SPITZER: This was my suggestion at our last Board meeting. This is a first reading today and the language it was a suggestion on the record and County Counsel then drafted the language and I know that BIA didn't have a sufficient period of time to review it. I have no objection and would state that I have no objection to continuing it for a week, but I just want to make sure that the Appellant and I know that their here today, if their willing to state on the record that one week delay, they will not use the one week delay, in other words for the first reading to affect them in terms of their grading permit application, cause my understanding is that it won't be ready until February anyway, but I want to clear that up with Mr Mathews, then I more than want to work with BIA in

terms of getting this cleared up. Last week just for the BIA's edification they were not present when I made the suggestion in terms of the change in the County Ordinance. I asked Mr. Mathews again on the record about how many cases like this have come before the Board and either it was on the record or privately it was like 1 or 2 in ten years, so, but I feel its very important to explore whether or not this would have any impact on the industry. So, if I get Mr. Mathews, Mr. Chairman, just to clear that point up in terms of the timing and what if anything Mr. Elfend or Mr. Oliver are here on behalf of the Appellant needs to put on the record we can just probably clear this up right away.

CHAIRMAN STEINER: Mr. Mathews go right ahead.

TOM MATHEWS: Mr. Chairman. Tom Mathews, Director of Planning & Development Services Department. I too would like to hear from the Applicant, it's my understanding and I can report to the Board that only the first few stages in the review of the grading plans have been completed by our Department Technical Grading Staff. In fact, we have sent information back to the Applicant and requested further documentation so that we may further understand the implications of the grading plan permit that has been submitted. So, we're not sure where the Applicant is in terms of developing that response. It is true that the BIA has not had a chance to look at this, this could have implications on their project, but as Supervisor Spitzer had indicated, the types of projects that this intended to address are theoretically at least very few in number. We have not had an adequate amount of time. Quite frankly Mr. Chairman, to be able to report more exacting comments to the Board at this point. So, a continuance to me in fact will allow us to be more precise.

CHAIRMAN STEINER: Again Tom, I apologize for not being part of this deliberation a week ago, but the fact that we've only had two or three in ten years, the concern for me is that if the Board starts getting involved in these ministerial types of issues regarding grading permits which are technical in nature and one of the reasons that we have our Staff and certainly the Planning Commission that we could have many more of these issues coming before the Board of Supervisors which I don't think is a good use of our time and I hate to see our ordinance's tweeked everytime there's a particular controversy over a particular issue, their there for a purpose and make sense or they would not have been adopted at that time So, I'm frankly not in supportive of changing this ordinance for grading permits, but if it's not a hardship for the Applicant, I don't care of BIA, they could look at the implications for the industry, because other ordinances can be changed as well Christine, you know that cause a big problem for the building industry and you ought to take this seriously. I have no problem with the courtesy of extending this continuance for one week, but if the Applicant would respond please.

WILLIAM D. ROSS: Yes, Mr. Chairman, Members of the Board. My name is William D. oss, I am an attorney for California Quartet, the Applicant below, for the grading permit. We are not technically the Appellant on this matter . . .

CHAIRMAN STEINER: Okay, I'm sorry.

WILLIAM D. ROSS: . . . this is a legislative matter for the Board. We would note that the latest version of this was only available for us to review as of I believe about 5:30 p.m. last night also. It's a matter that we view as being within the sound discretion of the Board. We have no objection to the one week continuance, we would hope that the phasing of this ordinance does not interfere with what we preceive to be an appeal on the EIR that was heard by the Planning Commission on December 3rd and would just note that we hope the processing does not result in undue administrative delay wit respect to that action. I think that would state succinctly the position of California Quartet.

CHAIRMAN STEINER: Thank you very much Mr. Ross. With that comment would you like to move a continuance for the BIA to review this.

SUPERVISOR: Yes, I'd like to move a continuance for one week Mr. Chairman and I'll just state on the record that we did have this discussion I apologize it was in your absence. I was Chairing that meeting Supervisor Silva had excused himself on the issues relating to this. I'm not sure on this particular issue if he is today and so it was a unanimous vote of Supervisor Wilson, myself and Smith with respect to changing it and we did not at that time see it as a ministerial action at all, but rather because the original application was so old, it's kind of like a re-energized application and in these limited scenarios we felt that the additional Board scrutiny was appropriate in very limited cases not opening the door at all to the every day grading application. So, I will personally work with BIA and take in their comments, I know the other Board Members will and I'd move continue for one week based upon Mr. Ross' representations on behalf of the Applicant below.

CHAIRMAN STEINER: Second. Thank you. Its been moved and seconded. Any further discussion? Any opposition to the motion? Hearing none, passed unanimously.

SUPERVISOR: Mr. Chairman. Well I am on this . . .

SUPERVISOR: on this you are?

CHAIRMAN STEINER: Jim your voting on this aren't you? cause this is a county-wide issue. Thank you. So it is a 5-0 unanimous vote. Madam Clerk if you'd record it as such.

END DISCUSSION OF ITEM 43

ITEM NO. 56

CHAIRMAN STEINER: Colleges, since Supervisor Silva will be recusing himself on 56 and we have dealt with 57, I want to quickly take Item 58 and then Supervisor Silva can recuse himself.

[DISCUSSION ON ITEM NO. 58]

CHAIRMAN STEINER: Madam Clerk Item No. 56 and Supervisor Silva is recusing himself on this.

SUPERVISOR SILVA: I will be leaving.

CLERK BLOOM: Under Planning and Development Services, Public Hearing to consider appeal filed by Aradi, Inc. of the Planning Commission's denial of use Permit PA 97-0086 proposing to allow a 200 square-foot freestanding pole sign on Saddleback Meadows.

SUPERVISOR STEINER: Thank you very much Madame Clerk. Mr. deMayo has the public hearing been closed on this Item.

BEN deMAYO: I think it was left open.

CHAIRMAN STEINER: Hearing was left open. Okay thank you very much. This is a Third District Item, Mr. Spitzer would like to hear from the Appellant first, there are two speakers.

SUPERVISOR SPITZER: I would prefer to have input because I want to hear specifically about what's, I only have the diagrams, I would like to know what sign they are proposing at this time.

SUPERVISOR STEINER: The Appellant, please, Mr. Elfend.

FRANK ELFEND: Good afternoon members of the Board of Supervisors. First, I would like to thank you Honorable Chairman for making us the last Item today. Basically, we are returning from a continued Public Hearing which took place on October 21 at the suggestion of Supervisor Spitzer. We had requested a sign for the Saddleback Meadows property and in terms of the deliberation of the Board at that time the Supervisor indicated that he didn't feel that it was appropriate to approve that sign for several reasons, but most importantly was not ready to approve it on that date and indicated that he wanted to have the Planning Commission first review the re-energized Environmental Impact Report on the project grading and that after that Planning Commission heard the project that it would come back to this Board for consideration and as such he suggested the Item be deferred after the project was reviewed by that particular body. On December 3, but a few days ago, the Planning Commission approved and certified the project on a unanimous vote of 5-0 which completed a very thorough analysis of the impacts involved by both the Staff, by both County Counsel and by the Planning Commission Members. So as such we felt by having the Planning Commission approve the environmental document

unanimously that we would come back here and ask you to again consider our sign. However, at the last meeting as well, Supervisor Spitzer indicated he felt the language on the sign was inflammatory in nature and thought that some of the wording we had included he felt was not appropriate and so what we also did and I refer to a letter that was transmitted to this Board on December 5 of this month to the Chairman and Members of the Board and there is a new attached exhibit at Supervisors Spitzer's suggested we have taken off the wording "coming soon" because we felt that that wording seemed to bother some people. We eliminated the flags that we had on the sign and we eliminated the word future site for and what we had indicated previously is that it was a future site for the mobilehome park and what we did in eliminating those three areas, we added a wording what the property was zoned for per the approved Specific Plan within the Bridalwood Residential District. So what we thought was in light of the Planning Commission Decision in conjunction with our determination to make the sign more acceptable to the Supervisor, we have come back and modified the wording. So with that in mind we are hopeful that we can have our sign approved in a manner similar to others in this County who have been granted a similar right and we have no more comments to make other than we would like the right as the Appellant to rebut any comments that are made subsequent to mine.

CHAIRMAN STEINER: Thank you Mr Elfend. I just had one quick question for you. Is this new alternative on the sign, does this also comply with the recommended smaller sign requirements of the Staff.

FRANK ELFEND: Yes, you are right. The other thing we did do excuse me for leaving that out is our original proposal was roughly overall 200 square feet and per Staff's recommendation we have again revised it down to 150. So it is consistent with that recommendation. Yes.

CHAIRMAN STEINER: Thank you very much. The other speaker that I have is Mr. Connor. Identify yourself for the record Ed, please.

ED CONNOR: Good afternoon Honorable Members, Ed Connor representing the Vedanta Society of Southern California. Speaking in opposition to the appeal and in support of the Planning Commission's denial of this sign permit application. Before I get into the substance let me just digress quickly, I listened with great interest as your Board appointed the Orange County President, the Orange County Bar Association to chair your _____ Defense Advisory Committee and as I sat there, I thought well I wonder in the interest of full disclosure should I tell them that in two weeks I become the President of the Orange County Bar Association But then I heard the impassion presentation given by

Karl Holms and Judge Cardenet(?), I though this sounds like fun so I am going to be quite and you are stuck with me.

CHAIRMAN STEINER: This may be more a problem then a sign.

ED CONNOR: That's right it may well be. Turning to the issue at hand, my recollection of what Supervisor Spitzer did all these many weeks ago was very different from what Mr. Elfend described. He didn't say we are waiting to see what is done in the EIR, he said we are waiting to see what the process results in. Specifically, we were talking about a grading permit at the time. There is no Grading Permit now, there won't be for some time, why? Because three things happened since October 21, three very important things. Number one a six step new CEQA review process was enacted by this Board some time, I recall, I think it was November 25. It changes everything. We now have a lengthy process we have to go through before we find out what will happen with this project. Step one was taken last week, but now there is to be an appeal to the Board and when that is done, then it goes back down, for what, for an ordinance which you continued today to be resolved. The ordinance will allow for an appeal of the Grading Permit. That has not come before the Board, I am told that the Grading Permit won't even be issued for several weeks or months. So we don't have a situation where we are ready to go forward, but the most important thing that happened was that last week the Planning Commission, yes it approved an EIR but it also took the highly unusual step of voting to sent some type of written communication to this Board imploring it and begging it not to allow this project to go forward. I never heard of that action being taken. I checked yesterday with County Counsel, it apparently has not been transmitted to you yet, but your Planning Commission does not want a 705 unit proposal to proceed and it is going to beg you not to do that and to find a way to prevent that. Now why would it do that. Well, because it called Mr. Elfend up, actually he deferred to Mr. _____ said would you accept a lower density alternative, he didn't reject that and he didn't say "no", how could he, he is suing you, he is suing the County and this Board for a hearing that is set for March 18 to force you to reconsider the 318 unit proposal that you rejected last year. Now why is it that a developer is suing you to get reconsideration of a lower density alternative and he wants to put a sign up that says 705 units coming, 705 units will be here shortly. Why does he want to do that. We all know the answer, its to leverage you to give him what he really wants. Reject this appeal, there is no need to continue this. Supervisor Stein you said the last time we were here, why are we wasting our time over a sign, why are we doing this. Let's put this behind us, they don't want it, nobody wants it. Thank you very much.

CHAIRMAN STEINER: And I would just comment on my Planning Commission because I don't want you to misrepresent Chuck Mcbernie's (?) position. Chuck Mcbernie, in his representation to me is not supportive of the 705 unit development but the expectation is that the compromise is 299 units which is recommended by Staff, it was not to recommend that there was to be no development at all. Just my Planning Commission.

ED CONNOR: Good clarifications, I'm not suggesting that but it certainly was not to recommend a sign that says 705 units. This is a new proposal we put in, the public hasn't seen it, it has come up without the Planning Commission seeing it and this sign should not be allowed. Why are they continuing to do this, its an _____ to everybody and the only reason I am raising this is because you will pay the price if that sign goes up, certainly he will, there will be phone calls off the hook to say what is the Board doing now, why are they approving 705, I thought the Planning Commission said it didn't want it. Nobody wants this, it is the discretionary permit, it is a smaller sign. This is a 150 square foot sign. The sign ordinance says that a 32 square foot sign is what you can put up without a permit. In our SR Sign Restrictions, because this does not fit within any of the categories of the approved sign, its not a construction sign, its not a for sale sign, Staff has already told you, you need a permit for one square inch sign. So this is all discretionary and you shouldn't allow it.

CHAIRMAN STEINER: Thank you very much Ed. Tom Mathew any comment before there is rebuttal by the Appellant.

TOM MATHEW: Mr. Chairman, Tom Mathew, Director of Planning Development Services Department. I would like to emphasize that one point made by Mr. Connor and that is that this is a discretionary permit that has been appealed to your body and that is true and the reason why it is a discretionary permit is that this property is located within a sign restriction district that is required for those who propose signage in that area to submit for Planning Commission approval of a use permit I would also indicate that with respect to Mr. Connor comment that the grading permit is likely some time off and as I relayed to you in earlier testimony this morning on a different matter, the Grading Permit has been applied for we have responded to the initial submittal and we have no idea when that grading permit might be perfected in terms of the response to the technical questions that we have posed to the Applicant and the Appellant in this particular sign and I would also remind the Board that the Planning Commission denied essentially without prejudice simply requesting that the Applicant reapply at some future point when the project is more immanent and Mr. Chairman that completes my comments with the exception that the Resolution which is attachment "E" of the Board's package before

you does contain a Resolution which would, if the Board chooses to uphold the appeal approve this sign and with specific findings and conditions. No Resolution is required if the Use Permit is denied.

CHAIRMAN STEINER: Thank you. **[CHANGE IN TAPE]**

MR. CONNOR: . . . to the wording that has been suggested by the Appellant would have to be so entered into the Record, if it chooses to uphold the appeal.

CHAIRMAN STEINER: Mr. Elfend do you have any response to Mr. Connor's representations before we go back to Supervisor Spitzer?

FRANK ELFEND: I only have a few brief statements to make and that is I'm sure members of the Board can appreciate that. What our request is and last time that we were here, we made a presentation of other signs that are permitted in the area. There are other signs for adjacent development that are similar to what we are proposing for, we simply want to put a sign on the property of a magnitude that is consistent with the location and the fact that we are off an arterial where people drive by quite simple, we think that's a reasonable approach and in fact, we have even gone to the extreme expense of revising and would revise the signage to take off some of the wording that we heard at the last meeting was inflammatory as suggested by the Supervisor. Now as far as the other comments made by Mr. Connor, I would indicate that, it is true, and I think as the Chairman clarified the recommendation, yes they did certify the EIR, the Planning Commission did certify the EIR and they did make a recommendation for the Staff alternative of 299 units which is not what we had asked for last time, that's what the Planning Commission recommended to your Board. Notwithstanding that, all that sign indicates is that there is a project called Saddleback Meadows it specifies the zoning what is currently zoned and approved for in the Foothill/Trabuco Specific Plan of which there is an exemption for 705 mobilehome park units exactly what we have said nothing more, nothing less and we are hopeful that you will consider our appeal and grant us that sign. If there is a future development proposal which is brought to us, we would modify that as appropriate but quite frankly again we just want to have the same ability to have the sign on our property as provided to other entities in this County.

SUPERVISOR STEINER: Thank you Mr. Elfend. Mr. Spitzer.

MR. SPITZER: Thank you very much Mr. Chairman. Last week I supported and moved the recommended action for Live Oak, Ltd. because I supported that project and I thought it was a reasonable project given the particular location. This morning I talked about the indigent defense and I recommended to this Board, at least it was for discussion that we at least look at a committee to advise

us since it required certain expertise that I thought the Board, especially in this setting, was not to well equipped to handle. The message I am trying to bring out by using those to illustrative examples is that my approach to these types of decision whether it be to this particular sign or any particular matter of public policy, is that we achieve a matter of fairness. The reason I objected to the language of the sign purported by the Applicant last time was not so much that I thought it was inflammatory, although I admittedly though it was, but because it was just plain inaccurate and I appreciate the concession of trying to come back and satisfy me as an individual although, obviously, I am not the only one to make this decision. The status of this particular situation, and County Counsel correct me if I am wrong, Mr. deMayo, is that it was denied by the Planning Commission because the Planning Commission rational pretty much what I advocated last time. I don't see a compelling reason to stray from today and that is this, I do take issue with Mr. Elfend's characterization and what I said last time and I tend to agree with Mr. Connor and that is that, I said that the land it may have this "old" entitlement and I understand the Planning Commission re-energized the EIR last week, however, there still is no legal authority to be able to touch the land in terms of moving a stitch of earth for any development whatsoever whether 705 manufactured or 299 actual real, you know, true residences. So what I am suggesting is, in the interest of fairness, in the interest of justice, I _____ Live Oak because a developer has the right to develop their property assuming they can do it reasonably and I think Live Oak met that burden. They didn't have a sign on there but in this particular case all I am saying is the day that the Grading Permit is approved, if that day comes to foreseen, then a sign is absolutely say or at least representing to the community what the future of that parcel is and I am not here to try to stall the process, I am here to try to make sure that the hurdles that are placed legally are jumped through without any abuse of process. I think I have demonstrated that on may projects on many, many issues and its not that I am adverse to the sign in the event that it becomes the future of the parcel but I think based on the Planning Commissions observations and what I said last time, I still think it is premature until the Grading Permit, you know, the future of the land is absolutely determined. So Mr. deMayo, it was denied by the Planning Commission, so what does that mean, does that mean it needs three votes to overturn that.

BEN deMAYO: Yes.

MR. SPITZER: Otherwise anything less than three votes means that the sign is denied.

BEN deMAYO. Correct

MR. SPITZER: So given that scenario, I'm not saying a sign will never come, I am just asking this Board to recognize the legal system we have in place and ask the Board to demand of any land

owner not just, in this case Aradi, but any land owner to go through the process of being able to develop the land and then at that time we have an obligation to support the developer but at this point I would have to say that I still feel its premature consistent with my own personal view that I have advocated before and also the Planning Commission. So I would make a motion to, well I would make a motion to deny -- well how should it be phrased Mr. deMayo.

BEN deMAYO: You could deny it without prejudice to bringing the application forward again without issuance of the Grading Permit.

MR. SPITZER: Sure, I think that is fair, I think its just and I don't think it deprives the landowner any representations whatsoever and I think that is consistent with my approach to being a Member of the Board of Supervisors on all issues. So I would make a motion to deny without prejudice as recommended by Counsel and that this issue be brought back only in the event that a Grading Permit is approved by either the Planning Department if the ordinance -- something happens to the ordinance -- or in the event that the Grading Permit eventually is appealed to the Board of Supervisors that only after said action is taken by the Board to either approve the Grading Permit then the sign issue can then go forward.

CHAIRMAN STEINER: There is a motion on the floor, is there a second.

TOM WILSON: Second for discussion.

CHAIRMAN STEINER: Second for discussion, Supervisor Tom Wilson.

TOM WILSON: Well, I will go back to looking at what has transpired since this has come forward and Mr. Chairman I am not a signed designer and I hate being in this position. The TCA tried to put me in this position a few weeks ago to design a sign for the toll road. This is not my expertise. However, on this sign I could consider this sign for installation if the bottom words are taken off -- 705 lots. If folks want to see the size of Saddleback Meadows, how it is zoned and call this number and talk to people, I don't have a problem with that, but I still consider and I would have to agree with my colleague that it becomes emotional when you put on here 705 lots for manufactured mobile housing. If that were struck and the astrict reference were struck, I could support this sign, its a statement this is Saddleback Meadows, this is how it is zoned, you want to know about it call the number. If that were not the case then I would have to agree with my colleague when Grading Permit is approved then everyone knows what is going to go there, put the sign up and advertise what it is going to be.

CHAIRMAN STEINER: Mr. Elfend would the Appellant be willing to remove that reference from the sign?

FRANK ELFEND: Yes we would.

CHAIRMAN STEINER: Thank you.

MR. SPITZER: Would you want to redo your motion?

MR. SPITZER: Well, I think the sign then becomes an accurate representation of how it is zoned. Can I just verify with County Counsel just to make sure that is accurate. Is that true Mr. deMayo given that, is everything factually true.

BEN deMAYO: I believe the rest is, I'm looking for Mr. Mathew. I think that that is accurate.

MR. SPITZER: Is that correct just on the record, Mr. Mathew.

MR. MATHEW: Yes Mr. Chairman that is correct.

CHAIRMAN STEINER: Mr. Spitzer.

MR. SPITZER: Do you want to recognize Mr. Connor on this.

CHAIRMAN STEINER: Yes I will but I want to know if there is a motion on the floor or not?

MR. STEINER: Well I would like to hear from Mr. Connor again, can we hear from him and then I will just wrap it up.

CHAIRMAN STEINER: Yes go ahead.

MR. CONNOR: I think it is an inaccurate representation to refer to the Specific Plan. The request that I made to the Planning Commission was that it amend the Specific Plan to make it cover this project. When you, there is a page 3-20, that is the only thing that refers to this project – Saddleback Meadows -- and what it says is the Board of Supervisors finds that this project is not consistent with the Specific Plan but because the property owner is in bankruptcy we are precluded from re-zoning it and that was the whole point that I tried to make was this Board should not allow this project of all the property out there to go forward being the only one exempt from your Foothill/Trabuco Specific Plan. This would suggest that its subject to, its not subject to it at all. Its exempt from it because there was a bankruptcy in December 1991, when this was first adopted and the Board of Supervisors said this is not consistent but we can't do anything about it because if we did, we would lower the value of the property. So what this Board should really be doing is saying it should not allow this on there at all and I would ask you, Supervisor Wilson, to ask the respondent, there is no 150 square foot sign anywhere in your District, or in the Third District, or in any District, there is no such sign that size. There is no reason that they should have this humongous sign out there. There is going to be a lot of people very upset, it is still inflammatory. You put that thing up there and you will have all sorts of people concerned whether you put 705, or 318, or whatever. But this language

is inaccurate because I think it connotes that you have zoned it consistent with the Specific Plan and you haven't. You specifically said its not consistent. I don't have the Specific Plan with me ____ of Staff does 3-20 read it. It was quoted in the Staff Report to the Planning Commission say yes we recognize the Board has found that it is inconsistent with the Specific Plan. What can we do, its exempt. That exemption should no longer continue because they are not in bankruptcy anymore. At any rate, I would suggest this language is not accurate and is not fair and the size is way to big.

CHAIRMAN STEINER: Ed I think you are starting to split some hairs. I guess if a couple of lawyers drove by this sign, they would focus in on the issues that you are talking about but I see this as a no brainier and the 705 lots off, I just don't see where its an issue at all. Thank you very much for your comments.

ED CONNOR: The no brainier I would say then, tell them they can have a 32 square foot sign he said he wants what everyone else gets. Thirty-two square feet, why 150 square feet.

CHAIRMAN STEINER: I would have to look back at the sign that was presented to us in October but I saw a sign and I drive that way to my daughter's home regularly, I saw a sign that to me looked about the size of signs that I am seeing out there on Portola Hills and so forth right across the street. They are around. Todd back to you.

TODD SPITZER: Yeah, Mr. Chairman on that do you remember when we dealt with this initially and I told Mr. Mathew that he should report back to the Board on that sign issue because its not fair given the rules of the game that people are not playing by their ordinance. It there are people out there who are in violation of ordinance, we need to take care of that. This is the thing, I understand your observation of spitting hairs, mine is they should be entitled factually to what they legally are entitled to which is a sign that says who the landowner is and where they can call for more information. I haven't heard that argument before -- that SR 320 issue. Mr. deMayo is there anyway to quickly say if you agree with Mr. Connor or not so we don't belabor this.

MR. BEN deMAYO: Well there is a page in the Specific Plan that refers to this property send this zoning refers to the property that because the property was in bankruptcy at the time of adoption of the Plan, the Board was not at liberty to amend that zoning to make it consistent with the Plan. _____ get all that on the sign.

TODD SPITZER: No but when it says "zoned: s', Specific Plan" is that parcel part of the Specific Plan?

MR. BEN deMAYO: It is but again the language in the plan says this is an exception from the other policies we did not, because of the bankruptcy stay, we did not review this property for consistency with the Plan.

TODD SPITZER: Well based upon, I don't have an objection with the strict out of 705. If they want to come don't to the 8 by 4 sign which is 32 which is consistent with our ordinance because of policing the other signs out there if they are out of compliance, I wouldn't object to that because I think lawfully given the intended circumstances we are facing now, Mr. Chairman, I can't object. I don't stand on good footing. So if they want to bring the size down and strict that language, then I probably could support it.

CHAIRMAN STEINER: Well I don't think the Appellant was agreeing to bring the size down, they have already brought the size down to the Staff recommended action.

TODD SPITZER: I understand but the Staff is asking us to waive, grant an exception with our discretionary authority on the sign size. So I will just call the question unless Supervisor Wilson wants to support me on the sign dimensions.

MR. WILSON: Well Supervisor Spitzer as I look at my package and I see that the Foothill Ranch sign is 224 square feet and the Portola Hills sign is about 100 square feet and 16 feet high. I have been out there and I drove by there and I did that because I was looking at the pictures that were submitted to us the last time this was heard and I just, the sign has been shrunk from the 200 down to 150 and where it is being placed the prospective of that sign within the scope of the land that is around it and the speed in which you go by, I can't see why this sign is being proposed as something that is going to be an issue. I can see -- my number is not on that sign. My point is if indeed the other signs in the area are of the incorrect size and there is going to be policing, then let that be done with this sign after its been put up and they are all done together. If they are not going to be policed and the rest of them are not going to be subjected to a reduction in size, then I don't see why this is going to be singled out either. I just believe that its a statement that is innocuous. I think as people drive by they say "oh Saddleback Meadows" and a zone, if I don't know about it, I will call this number and find out about it. Other than that people are just going to drive by and its just going to be there as part of the landscape.

CHANGE IN MALE VOICE: Mr. Elfend, you gave us some color copies last time of other signs in the area and I think you gave us this one on Valley Vista Way, is that exactly where you are planning to put the sign, this is a blank, it looks like the sign you propose. Is that the representation

to the Board of Supervisors that that's exactly where the sign is going to be placed. In other words are you putting that here today but then is anybody going to put it out farther toward the street?

FRANK ELFEND: That was a simulation we had done for the purposes of communicating how the sign would look so yes, it is going to go there.

SUPERVISOR SPITZER: So you would stipulate it would go there?

FRANK ELFEND: Yes.

CHAIRMAN STEINER: I'm just going to offer a substantive motion to see if we can't get going on this. We have Mr. Hamilton waiting, right, Bob is here. We need to going into a closed executive session. So I'll just move substitute motion which will uphold the Applicants appeal and approve a 150 square foot poll sign subject to a two year time limit with modified language which removes the reverence to 705 lots for commercial, pardon me for manufactured mobile housing, one commercial lot, plus open space lots and I make that motion.

CHANGE IN MALE VOICE: Second.

CHAIRMAN STEINER: It has been seconded. Further discussion.

CHANGE IN MALE VOICE: I will record a no vote.

CHAIRMAN STEINER: Madame Clerk will you call the role, please.

CLERK BLOOM: Supervisor Steiner - yes.
Supervisor Wilson - yes.
Supervisor Spitzer - no.
Supervisor Smith - yes.

CHAIRMAN STEINER: Item carries. That completes the Public Hearing portion of the Board of Supervisors Agenda. At this time we have the public comment section, I have no request to speak to the Board.

Board of Supervisors Hearing Transcript
December 16, 1997

BOARD OF SUPERVISORS HEARING
DECEMBER 16, 1997
ITEM NO. 83

CHAIRMAN: Madam Clerk read Item 83 please.

CLERK: Under County Counsel, excuse me, the first reading of an ordinance of the County of Orange providing appeal of certain grading permits.

CHAIRMAN: Thank you very much. Supervisor Spitzer what's your intent on this agenda item? I know you've written a memorandum to the Board and I just want to get it on the record.

SUPERVISOR SPITZER: Yes, Mr. Chairman thank you. I want to put this on the record as opposed to just dropping it from the agenda just to follow up. As you know, I recently proposed a change in the ordinance for Orange County providing for appeal of certain grading permits. This was in conjunction with the adopted procedures for review of supplemental EIRs. Specifically, we were talking about the project at Saddleback Meadows and I made this proposal based on information as it was represented to me by County Staff at the time of the hearing and like all of us a lot of time that was their recent memory impression that this kind of situation had only occurred in the last ten years once. However, after the meeting even based upon our vote which was unanimous subsequent review revealed that the situation in fact occurred not once in the last ten years but actually there's 13 times and this project, because of the recent recession, could actually require, Tom Mathews could actually require a lot of projects that are on line but have been delayed because of the recession that they come in for supplemental EIRs. So given this updated information and the representation I made to the Board that I wasn't gonna use, or I didn't it was appropriate for the Board to do this in all cases, but only in this limited number of cases, it seems like its a lot more wide spread than originally impressed upon me and the Board. So, at this time I'll be recommending that this ordinance not be adopted and I'd move it, because it's agendized and I think we already had the public hearing. I think we do have to take a vote . .

CHAIRMAN: Yeah.

SUPERVISOR SPITZER: I don't think I can just ask that it be dropped on the agenda, but I'd recommend that we no adopt it at this time.

SUPERVISOR: Second.

CHAIRMAN: There's a motion and a second any further discussion? Any opposition to the motion? Hearing none, passed and Mr. Ross I don't believe needs to speak to this given the action. Colleagues I'm going to recess this Board of Supervisors' meeting to a time certain at 1:15 p.m. to deal with Closed Executive Session item with regard to trial courts. Mr. Watson how long do you feel that that is gonna take?

RECESS - END OF ITEM DISCUSSION

APPENDIX D

SADDLEBACK MEADOWS PROJECT CHRONOLOGY

SADDLEBACK MEADOWS PROJECT CHRONOLOGY

DATE	PROJECT RELATED EVENT
August 8, 1978	- The Orange County Board of Supervisors adopted GPA 78-1, Item 4, the "Saddleback Meadows Mobile Home Subdivision" which granted a change in the Land Use Element designation for the site from 5.4 Other Open Space to 1.22 Medium Low Density Residential and 2.1 Local Commercial. Maximum number set at 617 dwelling units. Triggering mechanism to revert land use designation to original after 2 years commenced. EIR 059 certified
February 6, 1979	- Board adopted Site Plan conditions as requirements for implementing the subject amendment. Draft EIR 059, which was the CEQA documentation for the site plan, identified major grading impacts as project related impacts; these impacts were also shown on grading plans for Tentative Tract Map TT10692, prepared for the project.
March 7, 1979	- Zone change application, Tentative Tract Map and Initial Study requests submitted to County for a maximum of 617 mobile home units and a neighborhood convenience commercial center on the project site.
March 29, 1979	- Determination of requirement for an EIR transmitted to applicant by Environmental Services Division (ESD)
June 5, 1979	- Appeal of EIR requirement by Cliff Russell, representing Worthington/McNiff.
June 11, 1979	- The Orange County Planning Commission denied the appeal. Supplemental EIR required for proposed 617 unit tentative tract map.
June 25, 1979	- Zone Change 79-24 submitted to County. The project proposed at this time consisted of 617 units.
August 7, 1979	- Revised Tentative Tract Map was submitted to the County for Screencheck reflecting some design modifications requested by County staff as well as an increase of 145 dwelling units added to the project by the proponent.
August 17, 1979	- Revised Tentative Tract Map and Supplemental Environmental Information submitted to Environmental Services (ESD). Submittal raised many questions with ESD in that the project had been revised substantially with a 23.5% increase in total number of units and intensity of land use.
August 21, 1979	- Revised Zone Change 79-24 received by the County reflecting the revised project proposal of 762 units, with 25% in affordable range.

November 28, 1979 - Revised TT10692 filed with Environmental Management Agency depicting 727 lots, including 714 residential lots, 1 commercial lot and several open space and utility lots.

December 13, 1979 - TT10692 approved by the Planning Commission with recommendation that Zone Change ZC79-24 be approved by Board of Supervisors.

January 9, 1980 - Saddleback Meadows properties placed in the PC "Planned Community" District and adopted by Board of Supervisors, Ordinance Number 3177. Final EIR 203 certified.

October 28, 1981 - Two-year extension of time to record to expire December 12, 1983 approved by the Subdivision Committee.

December 7, 1981 - Appeal to deny two year extension of time affirmed by Planning Commission. One-year extension of time to record to expire December 12, 1982 granted by Planning Commission.

November 17, 1982 - An additional one year extension of time to record to expire December 12, 1983 approved by Subdivision Committee.

July 13, 1983 - Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance Number 3398 (ZC82-63P).

October 26, 1983 - Third one year extension of time to record approved.

June 13, 1984 - Saddleback Meadows Planned Community District Regulations amended by Planning Commission, and adopted by Board of Supervisors, Ordinance 3486 (ZC84-3P).

October 24, 1984 - 589-day stay of time in which to record a final tract map approved by Subdivision Committee. Expiration date extended to July 24, 1986.

July 24, 1986 - Water district could not provide sewer service, recordation not allowed until sewer capacity available.

September 21, 1988 - Execution between Southmark and the Trabuco Canyon Water District of "Agreement for Designing Construction of Master Plan Facilities, Tract No. 10692",

September 21, 1988	- Execution between Southmark and the Trabuco Canyon Water District as a document entitled "Agreement for Construction of Onsite Water and Sewer Facilities, Tract No. 10692";
December 16, 1988	- Tract Map 10692 recorded
February, 1989	- Payment of $973,528 58, purchase of sewer treatment capacity rights in Trabuco Canyon Water District's Chiquita Wastewater System Facilities by predecessor to Applicant,
1989	- Payment by predecessor to applicant to the Trabuco Canyon Water District in the amount of $904,475.00 for capital improvement charges based on the Equivalent Density Units of Recorded Tract No. 10692,
December 10, 1991	- Foothill/Trabuco Specific Plan approved and Final EIR 531 certified by Orange County Board of Supervisors. The Specific Plan incorporated the Saddleback Meadows Planned Community Regulations as the Bridlewood Residential District.
April, 1994	- Grading Permit Application GA940031 submitted for Phase I, Grading (98 3 acres) of the site
August, 1994	- Initial Study completed and Environmental Impact Report Determination Letter is issued.
August 11, 1994	- Letter of Appeal filed with County.
November, 1994	- Appeal Hearing postponed to January 7, 1995.
January 31, 1995	- Applicant withdraws appeal. Planning Commission directs applicant to develop a more compatible project in response to public testimony, staff concerns, and Planning Commission's direction
July 27, 1995	- Revised 318-unit Site Development Plan, zone change and area plan submitted to County of Orange
August 11, 1995	- Notice of Preparation circulated for EIR 561
October 17, 1995	- Screencheck Draft EIR 561 submitted to OCPDS for review

July 30, 1996	- Orange County Planning commission recommended EIR 561 for certification and recommended applications for Vesting Tentative Tract Map No 15230, area plan 95-7 and zone change 95.5 be denied.
October 22, 1996	- Board of Supervisors denied project and did not certify EIR 561.
December 3, 1996	- Applicant submitted application for Phase 1 Grading Plan for 705 unit Tract 10692 (GA960048)
December 16, 1996	- EMA determined that a Subsequent EIR is required to evaluate the effects of the grading application.
December 24, 1996	- Notice of Preparation issued for Subsequent DEIR 566.
February 6, 1997	- Notice of Preparation re-issued for Subsequent DEIR 566.
June 27, 1997	- DEIR 566 Public Review Period Begins.
August 12, 1997	- DEIR 566 Public Review Period Ends.
October, 1997	- Response to Comments document circulated to commentators.
October 22, 1997	- Planning Commission Pubic Hearing – DEIR 566.
November 25, 1997	- Board of Supervisors public Hearing – EIR 566 Review Procedure adopted.
December 3, 1997	- Planning Commission Certifies EIR 566
December 18, 1997	- EIR Certification Appeal received by OCP&DS
January 27, 1998	- Board of Supervisors Appeal Public Hearing – EIR 566 - Continued
February 24, 1998	- Board of Supervisors Appeal Public Hearing – EIR 566

APPENDIX E

CONNOR, CULVER, BLAKE & GRIFFIN
APPEAL LETTER

Attachment D

CONNOR, CULVER, BLAKE & GRIFFIN LLP
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December 18, 1997

Thomas B. Mathews, Director
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VIA HAND DELIVERY

Benjamin de Mayo, Esq.
Deputy County Counsel
Office of County Counsel
County of Orange
10 Civic Center Plaza
Santa Ana, CA 92702

Re: Notice of Appeal re Certification of FSEIR 566
Saddleback Meadows Project

Dear Messrs. Mathews and de Mayo:

The Vedanta Society of Southern California (the "Society") hereby submits this notice of appeal of the Planning Commission's certification of Final Supplemental Environmental Impact Report No 566 ("FSEIR 566" or "FSEIR") as being adequate, complete, and in compliance with the provisions of CEQA and the CEQA Guidelines.

The Society's appeal to the Board of Supervisors (the "Board") of the Planning Commission's action on FSEIR 566 (hereinafter referred to as the "Appeal") shall be based upon each and every procedural and substantive contention, objection, comment, or argument raised in the letters (collectively, the "Letters") which are listed in Exhibit "A" attached hereto and are incorporated herein as if set forth in full hereat. In addition, the Appeal shall also be based upon each of the objections raised, or comments or arguments made, by the Society's representatives (hereinafter collectively referred to as the "Oral Comments") at the public hearings or meetings held by the Planning Commission or the Board in connection with the review of FSEIR 566, including, but not limited to, hearings and meetings held on October 22, November 25, and December 3, 1997.

The grounds for the Appeal shall include, but shall not be limited to, the following violations of CEQA and the CEQA Guidelines.

(1) The Planning Commission failed to proceed in the manner required by law by certifying FSEIR 566 pursuant to a specially-adopted CEQA review process which, among other things, unlawfully separated (a) the certification of the FSEIR from (b) the approval, modification, or disapproval of the discretionary project, i.e., the grading permit application, for which the FSEIR was originally prepared,

(2) FSEIR 566 fails to adequately address all significant environmental impacts associated with the 705-unit Saddleback Meadows project (the "Project") which is the subject of recorded tract map No. 10692 (the "Recorded Map"), as more particularly described in the Letters and Oral Comments;

(3) FSEIR 566 fails to adequately address all reasonable project alternatives and all feasible mitigation measures to lessen or avoid adverse impacts associated with the Project, as more particularly set forth in the Letters and Oral Comments;

(4) FSEIR fails to adequately respond to the comments set forth in the Letters;

(5) The Findings and Statement of Overriding Considerations relating to FSEIR 566 which have been made by the Planning Commission are inconsistent, are not supported by substantial evidence in the record, and are based on an incorrect interpretation of California law regarding the legal effect of the Recorded Map;

(6) The public was not afforded timely and meaningful access to all appropriate documentation and technical studies relating to the Project prior to the certification of FSEIR 566. In addition, FSEIR 566 should have been supplemented with the geotechnical materials and grading plans which were made available after the Planning Commission's October 22 meeting, and the FSEIR should have been recirculated for public review and comment; and

(7) The Mitigation Monitoring Program adopted in conjunction with the certification of FSEIR 566 is inadequate, incomplete, and ineffective.

Attachment D

Given the fact that, despite several earlier requests, our office was not able to obtain a copy of the Planning Commission's proposed Resolution and Findings certifying FSEIR 566 until just two days ago, and received a revised copy of the proposed Findings as late as this morning, the Society has been seriously prejudiced in its ability to review the record of proceedings before the Planning Commission and prepare a notice of appeal within the 15-day appeal period. The Society has simply done the best that it could under these difficult, and exceedingly unfair, circumstances.

In addition to the above, the Society has not been afforded adequate time to review the draft Resolution and Findings by the Planning Commission to determine whether they incorporate all of the changes requested by Commissioner Goacher at the December 3 public hearing on FSEIR 566. Yesterday, we determined that the set of Findings we had obtained on Tuesday did not incorporate the geotechnical conditions of approval which, at Commissioner Goacher's request, the Planning Commission had adopted as part of its certification of the FSEIR. That omission has now been partially rectified, and another revision is yet to be made by County staff, but the Society remains concerned that the additional modifications requested by Commissioner Goacher at the time of the hearing have been omitted from the final documents.

As a final point, the Society wishes to note for the record that the 6-step CEQA review process for FSEIR 566 which was adopted by the Board of Supervisors in its meeting on November 25, 1997, and which was relied upon by the Planning Commission in certifying the FSEIR, has now been effectively nullified by the Board's decision on December 16, 1997, to decline to amend the Grading Code to provide a procedural mechanism for an appeal to be taken of whatever grading permit might ultimately be issued by the Orange County Building Official with respect to the Project. Accordingly, since the Board has now declined to adopt "step 6" of the special CEQA review process for FSEIR 566, it is the Society's position that the entire process has now been rendered null and void and all action taken by the Planning Commission is likewise a nullity. By submitting this Appeal, the Society does not acquiesce in the CEQA review process for FSEIR 566 and reserves all rights to continue to challenge the legality of that process.

Attachment D

CONNOR, CULVER, BLAKE & GRIFFIN LLP

As soon as a date has been set on the Board's calendar for a hearing on the Appeal, please provide our office with notice of that hearing at your earliest convenience. Thank you.

Very truly yours,

Edmond M. Connor

EMC/rn

encl.

cc: William Ross, Esq.

Vedanta\Aradi\Corresp\Mathews Ltr

EXHIBIT "A"

LETTERS RE FSEIR 566

1 June 29, 1997, Robert A. Hamilton, Consulting Biologist, Conservation Chair, Orange County CNPS, to George Britton, County of Orange, Environmental & Project Planning Services Division;

2. August 5, 1997, Saundra F. Jacobs, REA, SFC Consultants, to Ray Brantley, Orange County Planning and Development Services Department, Environmental and Project Planning Services Division,

3. August 6, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Raymond H.C. Brantley and William Grieman, Environmental Planning Section, Orange County Planning & Development Services Department;

4. August 8, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Nicholas S. Chrisos, Esq., Office of County Counsel;

5. August 8, 1997, Gail C. Kobetich, U.S Fish and Wildlife Service, and Ron Rempel, California Department of Fish and Game, to Raymond Brantley, Environmental & Project Planning Services;

6. August 11, 1997, Karen Steele Verlaan, City of Mission Viejo, to George Britton, Environmental & Project Planning Services;

7. August 11, 1997, Robert E. Anslow, Esq., Bowie, Arneson, Kadi, Wiles & Giannone, to George Britton, Manager, County of Orange, Planning & Development Services Department;

8. August 11, 1997, Kimberly A Stocking to Planning and Development Services Department,

9 August 12, 1997, Wayne L Brown to Manager, OCPDS/Environmental & Project Planning Services Division;

10. August 12, 1997, Amber Graves to Manager, OCPDS/Environmental & Project Planning Services Division;

11. August 12, 1997, Debra Moddelmog to Manager, OCPDS/Environmental & Project Planning Services Division;

12 August 12, 1997, Justin Watson to Manager, OCPDS/Environmental & Project Planning Services Division;

13. August 12, 1997, Kathy L. Graham, City of Lake Forest, to Raymond H.C Brantley, Environmental Management Agency, Environmental & Project Planning;

14. August 12. 1997, J. David Stein, Southern California Association of Governments, to George Britton, Environmental & Project Planning Services;

15. August 13, 1997, Peter A. Hartman, Saddleback Valley Unified School District, to Ray Brantley, Environmental & Project Planning;

16. August 15, 1997, Bill Berry, State of California -- The Resources Agency, Department of Parks and Recreation, to Ray Brantley, County of Orange;

17. August 18, 1997, Ray Chandos, Rural Canyons Conservation Fund, to Raymond Brantley, Planning and Development Services Department,

18. August 21, 1997, David B. Cosgrove, Esq., Rutan & Tucker LLP, to Raymond Brantley, Orange County Planning & Development Services, Environmental & Project Planning Services Division;

19. August 22, 1997, Saundra F. Jacobs, REA, SFC Consultants, to Raymond Brantley, Orange County Planning and Development Services Department, Environmental and Project Planning Services Division,

20 August 22, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Raymond H.C. Brantley, Environmental Planning Section, Orange County Planning & Development Services Department;

21. October 15, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Raymond H.C. Brantley, PDS/Environmental & Project Planning Service Division;

22. October 16, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Benjamin J de Mayo, Esq., Office of County Counsel;

23 November 3, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Benjamin J. de Mayo, Esq., Office of County Counsel;

24. November 5, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Benjamin J. de Mayo, Esq., Office of County Counsel;

25 November 26, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Benjamin J. de Mayo, Esq., Office of County Counsel;

26. December 1, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Benjamin J. de Mayo, Esq., Office of County Counsel;

27. December 2, 1997, Saundra F. Jacobs, REA, SFC Consultants, to Raymond Brantley, Orange County Planning and Development Services Department, Environmental and Project Planning Services Division; and

28. December 2, 1997, Edmond M. Connor, Esq., Connor, Culver, Blake, & Griffin LLP, to Orange County Planning Commission and George Britton and Raymond H.C. Brantley, PDS/Environmental & Project Planning Services.

APPENDIX F

100 SCALE GRADING PLANS