

LOCAL SIGNAL SYNCHRONIZATION PLAN



County of Orange

2026 Update

COUNTY OF ORANGE

LOCAL SIGNAL SYNCHRONIZATION PLAN

May 19, 2026

Orange County Transportation Authority
ATTN: Alicia Yang
Regional Modeling and Traffic Operations
Planning Division
P.O. Box 14184
Orange, CA 92863-1584

**Subject: Local Signal Synchronization Plan Submittal as Part of the Measure M2
Eligibility Process**

Dear Ms. Yang:

The County of Orange, OC Public Works Department (County) is pleased to submit its Local Signal Synchronization Plan as part of the Measure M2 eligibility process. The submittal includes the following components:

1. A completed "Local Signal Synchronization Plan Consistency Review Checklist" form establishing consistency between the Local Signal Synchronization Plan and the Regional Traffic Signal Synchronization Master Plan.
2. An updated Local Signal Synchronization Plan for Fiscal Years 2026/2027 to 2028/2029 including all required elements as identified in the "Guidelines for the Preparation of Local Signal Synchronization Plans".

The County looks forward to continuing the implementation of the beneficial programs and construction projects required and made possible by Measure M2.

If you have any questions, please call me at (714) 245-4583.

Sincerely,



Denis Bilodeau
County Traffic Engineer
Manager, Traffic & Development Support
OC Public Works

Enclosures

- A. Local Signal Synchronization Plan Consistency Review Checklist
- B. Local Signal Synchronization Plan


cc: Kevin Onuma, Director, OC Public Works
Edward Frondoso, Assistant Director/County Engineer, OC Public Works
Justin Gollither, Deputy Director, OC Infrastructure Programs, OC Public Works

LOCAL SIGNAL SYNCHRONIZATION PLAN CONSISTENCY REVIEW CHECKLISTThe Local Agency Name: County of OrangePlan Date: 5/19/2026

Local agencies must submit a copy of the Local Signal Synchronization Plan, a completed consistency review checklist, and any supporting documentation. Complete the table below.

Local Agency Statement	Page #s in LSSP	Provided or N/A
1. Signal synchronization goals of the agency are consistent with those outlined as part of the Regional Traffic Signal Synchronization Master Plan.	Page 5-6	Yes
2. Traffic signal synchronization street routes are identified, including all corridors along the regional signal synchronization network located within the local agency.	Page 7-19	Yes
3. Traffic signal inventory for all traffic signal synchronization street routes.	Page 20-23	Yes
4. Three-year plan separately showing costs, available funding, and phasing for capital, operations, and maintenance of signal synchronization along the traffic signal synchronization street routes and traffic signals, which may include unconstrained and build-out scenarios.	Page 24-27	Yes
5. Signal synchronization review, revision, and assessment of synchronization activities along the traffic signal synchronization street routes and traffic signals.	Page 28-36	Yes

I certify that the above statements are true to the best of my knowledge.


Signature

5/19/26
Date

Denis Bilodeau, County Traffic Engineer / Manager, Traffic Engineering

Printed Name, Title

LOCAL SIGNAL SYNCHRONIZATION PLAN

**SECTION 1:
SIGNAL
SYNCHRONIZATION
GOALS**

1.0 SIGNAL SYNCHRONIZATION GOALS

The County of Orange's Local Signal Synchronization Plan (LSSP) involves signal coordination, communication and detection support, new/upgrade communication systems, new/upgrade detection, intersection/field modernization, replacement and minor signal operation improvements. The LSSP thereby strives to improve traffic flow and signal operations; reduce congestion, fuel consumption, and vehicle emissions while enhancing public safety which is in alignment with County's goals.

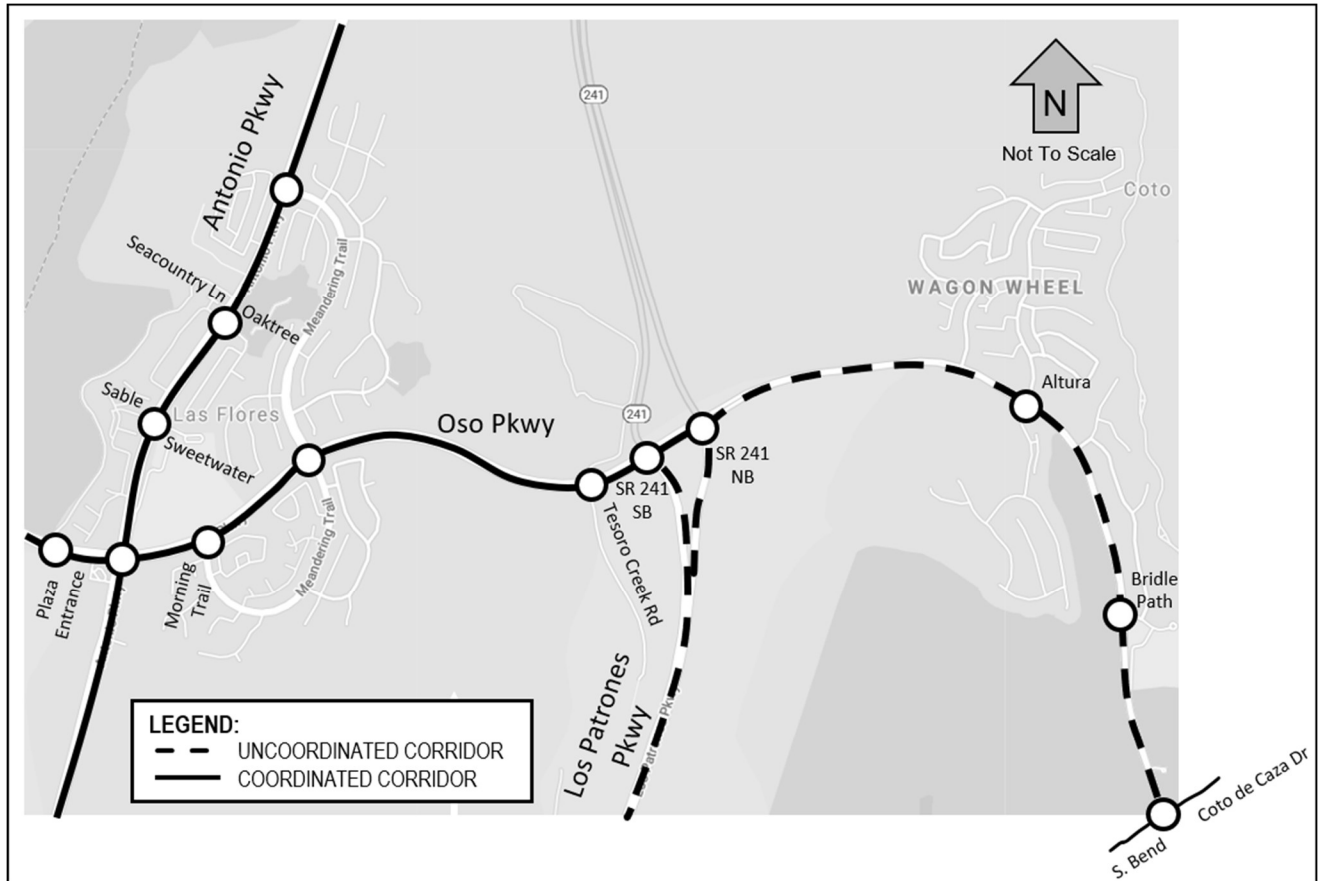
As part of this LSSP, the County acknowledges the Measure M2 Regional Traffic Signal Synchronization Program (RTSSP) goals and supports a multi-agency, corridor-based approach that optimizes traffic signals based on existing traffic patterns. The County supports local agency responsibility for signal timing and working with neighboring agencies to develop synchronization timing. For isolated signals, the County defers to the surrounding jurisdiction to facilitate corridor coordination.

The near-term goal involves minor signal upgrades to fine-tune current signal timing whereas the long-term goal involves upgrading the traffic signal system for a more robust state-of-the art infrastructure and communication system. To this end, the County has plans for installation of Fiber Optics on additional Arterials for better communication to our Traffic Management Center (TMC) at the OC Public Works Headquarters building in Santa Ana. Other future plans include having 100% communications to all our signals, using ASE circuits and cell modems, and installation of CCTV cameras.

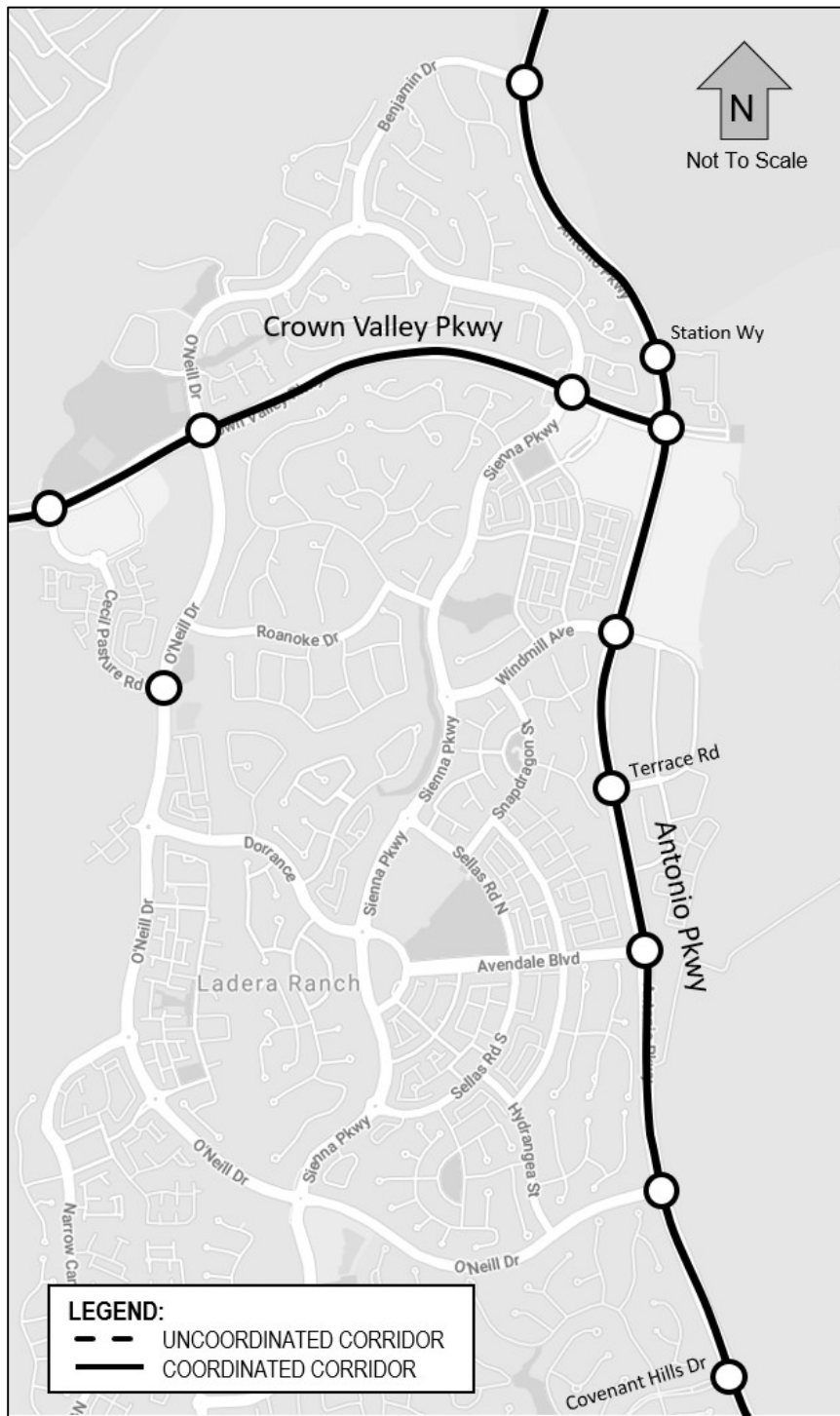
It has been the County's practice to fine-tune signal timing on as needed basis through observation and monitoring of corridors. Major signal timing upgrades typically take place when a significant change in traffic patterns occurs due to new land developments. The County has also implemented proposed signal timing modifications recommended by various ongoing RTSSP projects.

Currently, the County is participating in several RTSSP projects. These projects include the following corridors: Crown Valley Parkway, Antonio Parkway, Orangethorpe Avenue/Esperanza Road, and First Street/Bolsa Avenue. Some of the upgrades include controllers, cabinets, EVPS, Fiber Optics, TMC equipment, and other traffic signal appurtenances. Recent timing upgrades have been implemented on the Orangethorpe Avenue/Esperanza Road and First Street/Bolsa Avenue corridors. A past RTSSP project completed since the last LSSP update is Katella Avenue.

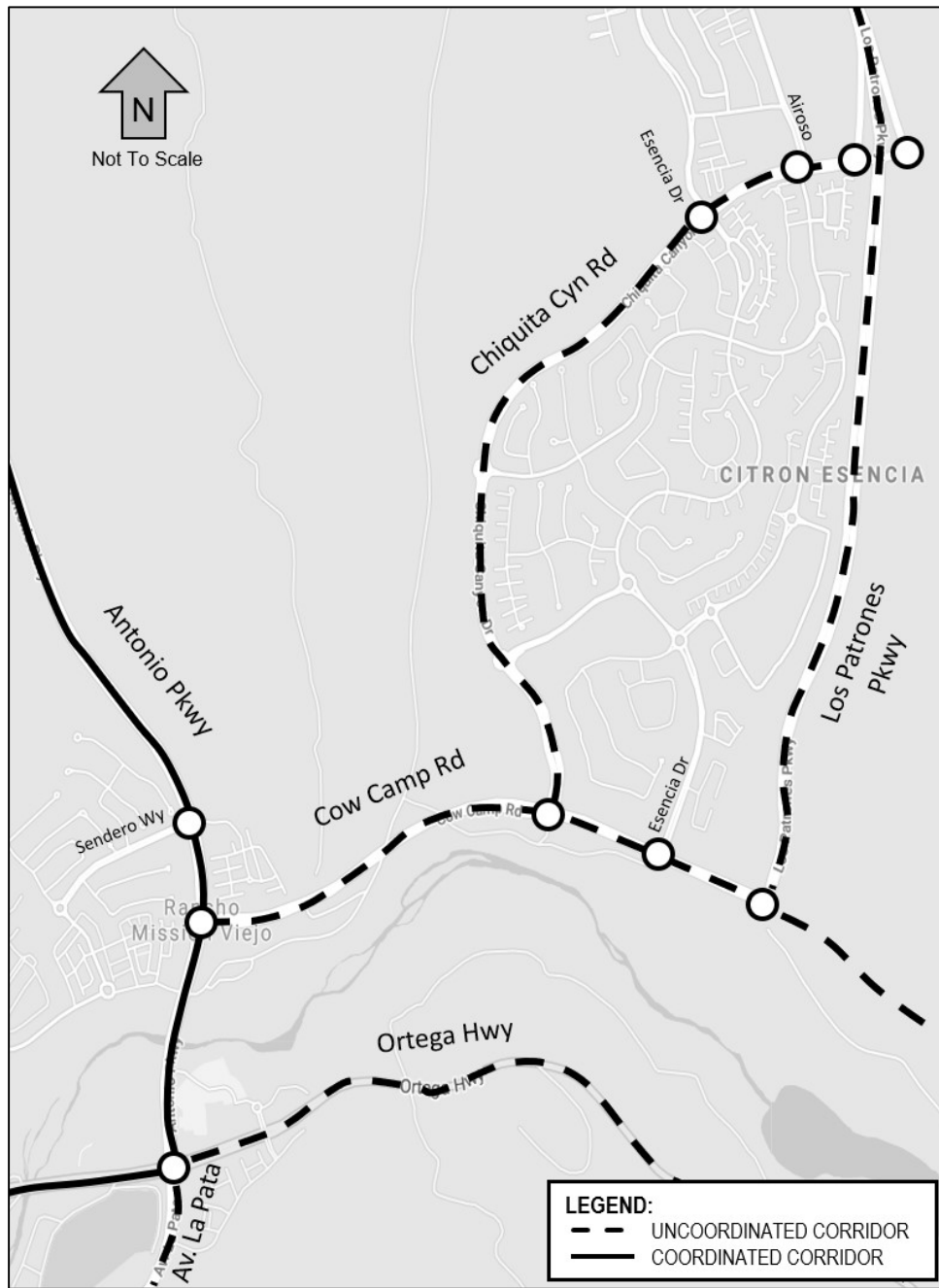
**SECTION 2:
TRAFFIC SIGNAL
SYNCHRONIZATION
STREET ROUTES**



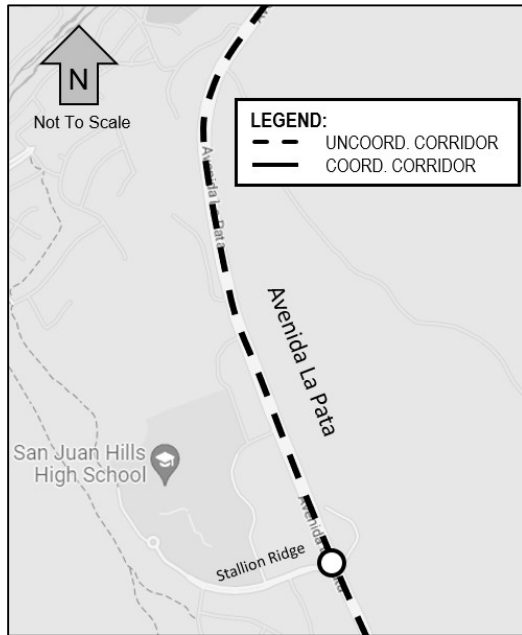
Traffic Signal Synchronization Street Routes – Las Flores / Wagon Wheel



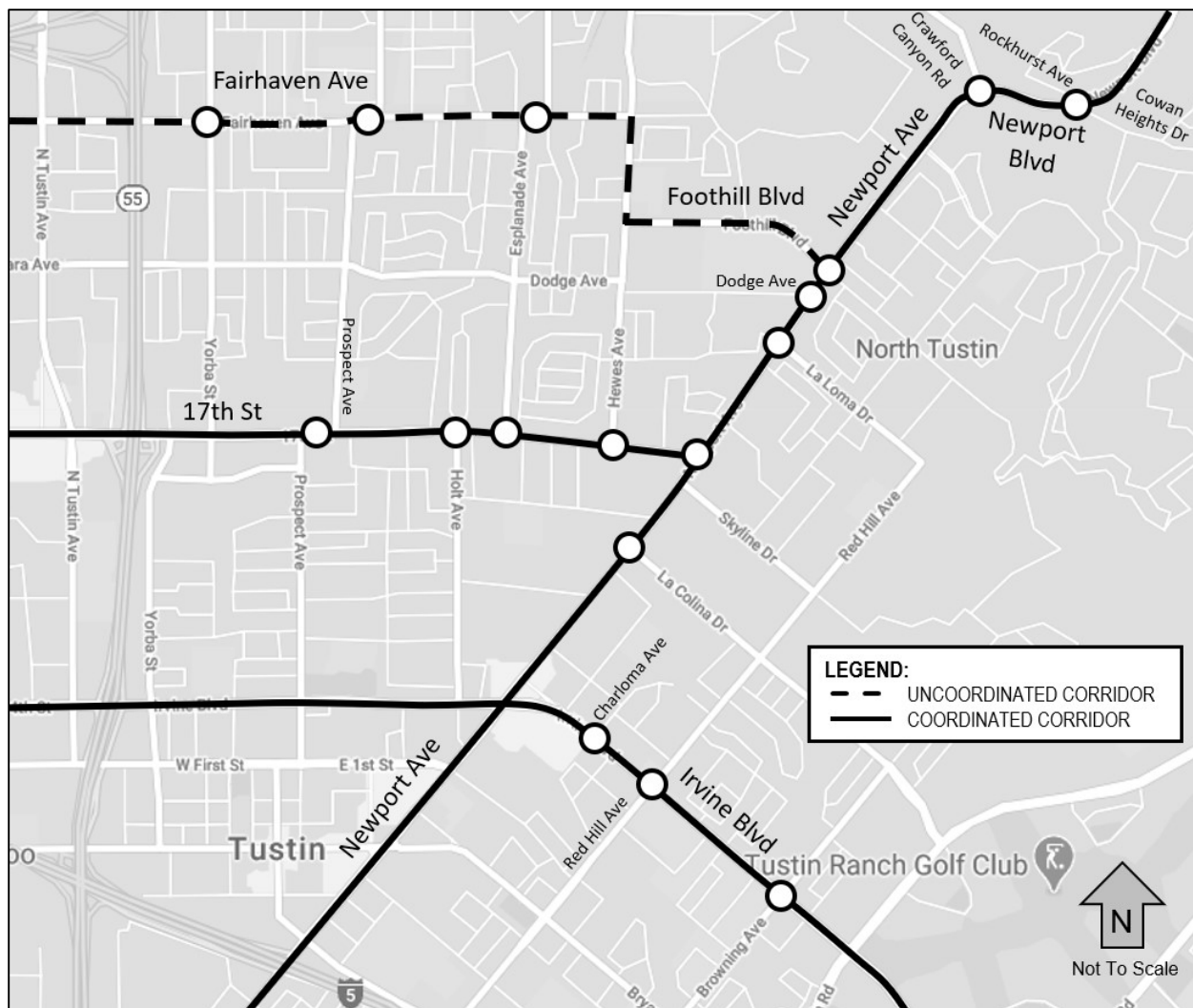
Traffic Signal Synchronization Street Routes – Ladera Ranch



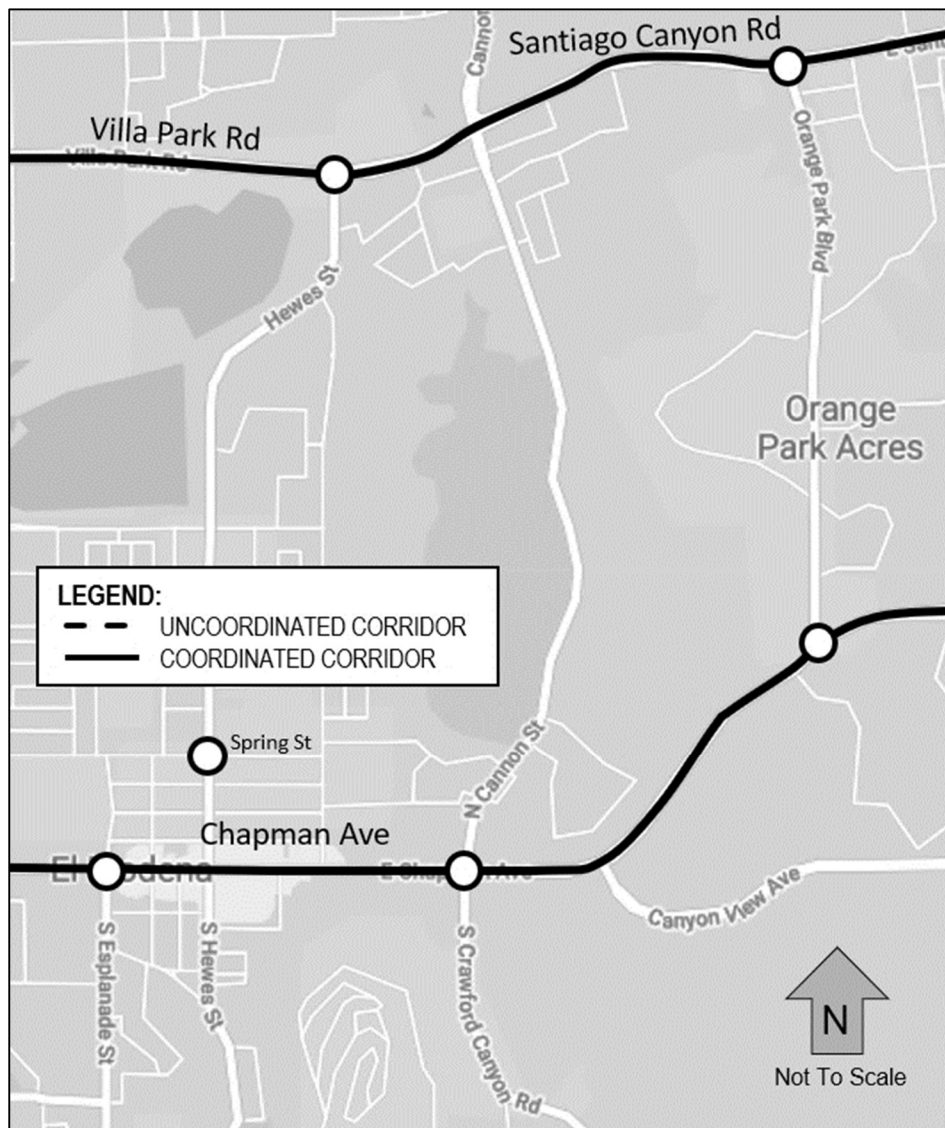
Traffic Signal Synchronization Street Routes – The Ranch



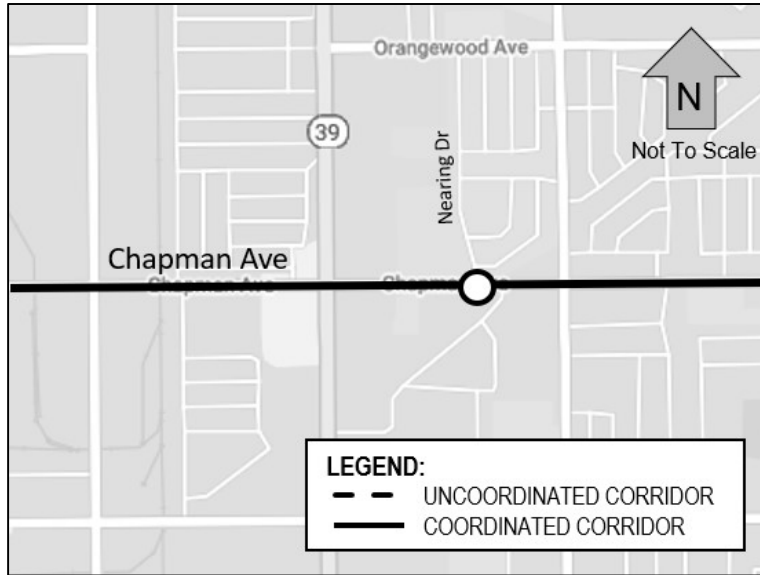
Traffic Signal Synchronization Street Routes – The Ranch



Traffic Signal Synchronization Street Routes – North Tustin



Traffic Signal Synchronization Street Routes –
El Modena / Orange Park Acres



Traffic Signal Synchronization Street Routes – Garden Grove Island



Traffic Signal Synchronization Street Routes – Olive Heights



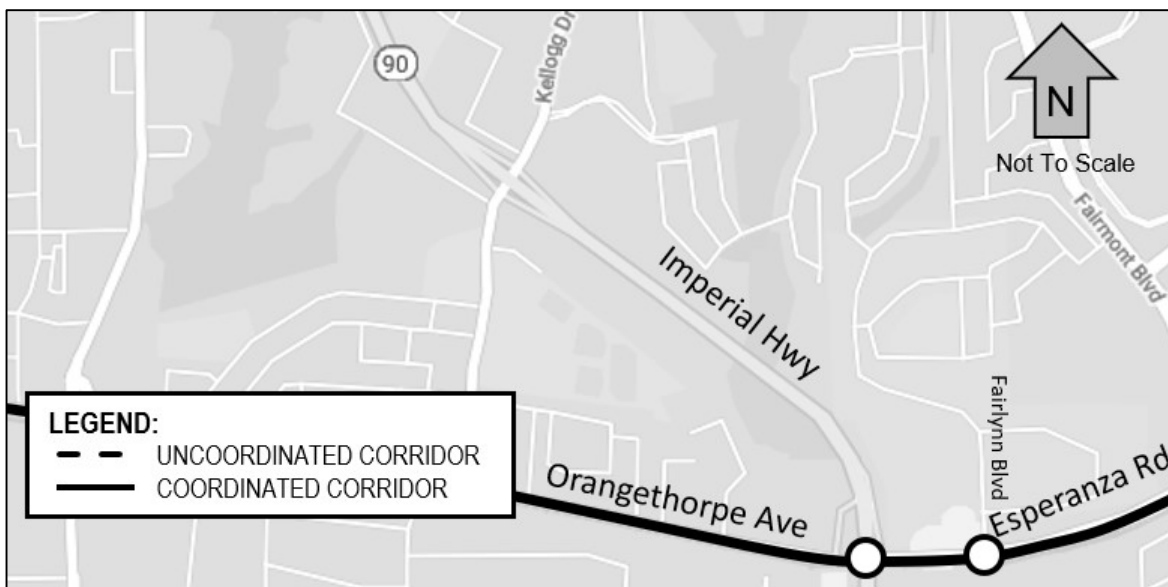
Traffic Signal Synchronization Street Routes – Anaheim Islands



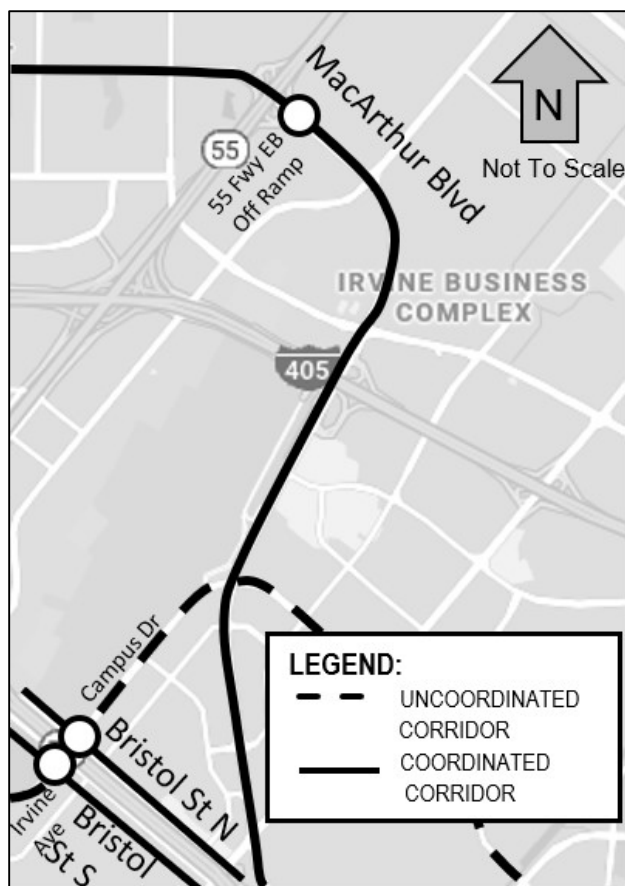
Traffic Signal Synchronization Street Routes – Midway City



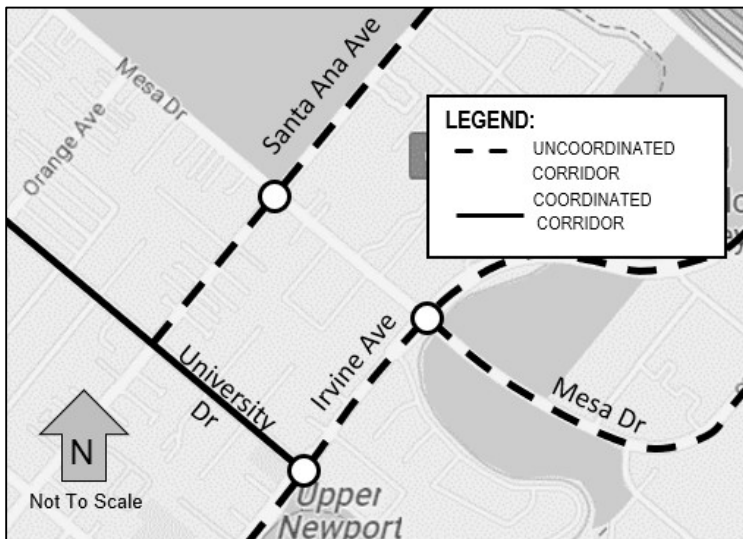
Traffic Signal Synchronization Street Routes – Rossmoor



Traffic Signal Synchronization Street Routes – Yorba Linda Islands



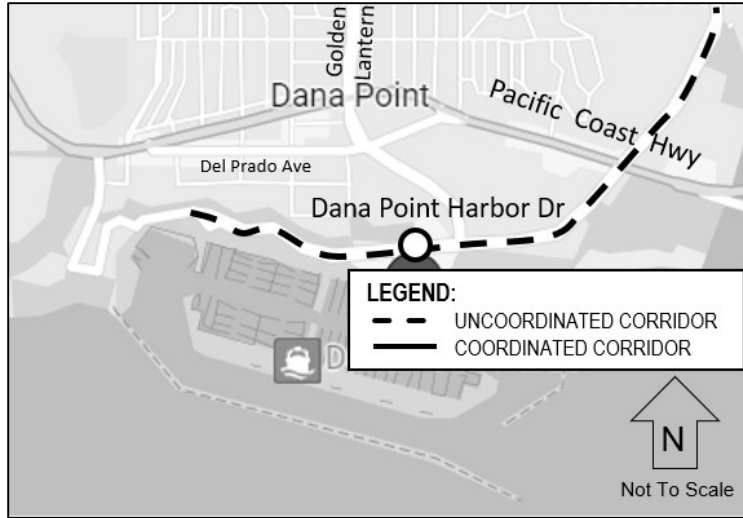
Traffic Signal Synchronization Street Routes – Santa Ana Heights



Traffic Signal Synchronization Street Routes – Santa Ana Heights



Traffic Signal Synchronization Street Routes – Hidden Hills



Traffic Signal Synchronization Street Routes – Dana Point Harbor

**SECTION 3:
TRAFFIC SIGNAL
INVENTORY**

Traffic Synchronization Inventory
County of Orange

Corridor	Cross Street Intersection	Cycle Length				Maintenance Responsibility	Operations			Equipment										
		AM	MID	PM	WKND		Left	Right	Other	Cabinet	Type	Software	Detection	Bike Detection	CCTV	Power Backup	Comm	Other ITS	ATMS	Status
Antonio Pkwy	Ortega Hwy	*	*	*	*	Caltrans	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Cow Camp Rd	120	100	140	100	County	Protected	Other	Other	P (TS2 Type 1)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber		Online	
	Sendero Wy	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber		Online	
	Covenant Hills Dr	120	100	140	100	County	Protected	Perm/Overlap	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	O'Neill Dr	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	Avendale Dr	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	Terrace Rd	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	Windmill Ave	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	Crown Valley Pkwy	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber		Online	
	Station Wy	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	Benjamin Dr	120	100	140	100	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	Oso Pkwy	140	140	140	150	County	Protected	Other	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber		Online	
	Sweetwater/Sable	120	70	120	75	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
	Oaktree Ln/ Seacountry Ln	120	70	120	75	County	Protected	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online	
Meandering Trail	120	70	120	75	County	Protected	Permissive	Other	P (TS2 Type 2)	ASC/3	ASC3/NEMA	Loops	No	Axis	BBS	Fiber		Online		
Avenida La Pata	Stallion Ridge	N/A	N/A	N/A	N/A	County	Protected	Other	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Video	Yes	Cohu	BBS	Cellular		Online	
Ball Rd	Gilbert St	*	*	*	*	Anaheim - 50%	*	*	*	*	*	*	*	*	*	*	*	*	*	
	Perdido St	*	*	*	*	Anaheim - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
Beach Blvd	McFadden Ave	*	*	*	*	Caltrans - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
	Bolsa Ave	*	*	*	*	Caltrans - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bolsa Ave	Van Buren St	130	130	130	130	County	Permissive	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Cellular		Online	
	Newland St	130	130	130	130	County - 50%	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Loops	No	Cohu	BBS	Fiber		Online	
	Purdy St	*	*	*	*	Westminster - 50%	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bristol St NB	Irvine Ave/Campus Dr	*	*	*	*	Newport Beach - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bristol St SB	Irvine Ave/Campus Dr	*	*	*	*	Newport Beach - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
Brookhurst St	Cerritos Ave	*	*	*	*	Anaheim - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
	Broadway	*	*	*	*	Anaheim - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
Chapman Ave	Nearing Dr	130	130	130	130	County - 33%	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	N/A	UPS	Cellular		Online	
	Esplanade Ave	*	*	*	*	Orange - 50%	*	*	*	*	*	*	*	*	*	*	*	*	*	
	Crawford Canyon Rd	*	*	*	*	Orange - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	
	Orange Park Blvd	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS1)	ASC/3	ASC3/NEMA	Loops	No	N/A	BBS	Cellular		Online	

Traffic Synchronization Inventory
County of Orange

Corridor	Cross Street Intersection	Cycle Length				Maintenance Responsibility	Operations			Equipment										
		AM	MID	PM	WKND		Left	Right	Other	Cabinet	Type	Software	Detection	Bike Detection	CCTV	Power Backup	Comm	Other ITS	ATMS	Status
Chiquita Canyon Rd	Esencia Dr	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online
	Airoso St	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online
	Los Patrones Pkwy - NB Ramp	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online
	Los Patrones Pkwy - SB Ramp	N/A	N/A	N/A	N/A	County	Permissive	Other	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online
Cow Camp Rd	Chiquita Canyon Dr	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 1)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online
	Esencia Dr	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 1)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online
	Los Patrones Pkwy	N/A	N/A	N/A	N/A	County	Protected	Other	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online
	Ranch Canyon	N/A	N/A	N/A	N/A	County	Protected	Other	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online
	Legado Rd	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online
Crown Valley Pkwy	Cecil Pasture Rd/ Sports Park	140	130	140	130	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online
	O'Neill Dr	140	130	140	130	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online
	Sienna Pkwy	140	130	140	130	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online
Dana Point Harbor Dr	Casitas Pl	N/A	N/A	N/A	N/A	County	PPLT	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Cellular			Online
El Toro Rd	Valley Vista Wy	70	Free	130	Free	County	Permissive	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Loops	No	N/A	UPS	Cellular			Online
Esperanza Rd (Orangethorpe Ave)	Imperial Hwy	*	*	*	*	Caltrans	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Esperanza Rd	Fairlynn Blvd	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Loops	No	N/A	BBS	Cellular			Online
Fairhaven Ave	Yorba St	N/A	N/A	N/A	N/A	County - 50%	Permissive	Permissive	Other	P (TS2 Type 1)	ASC/3	ASC3/NEMA	Loops	No	Cohu	BBS	Fiber			Online
	Prospect Ave	N/A	N/A	N/A	N/A	County - 85%	PPLT	Permissive	Other	P (TS2 Type 1)	Cobalt	ASC3/NEMA	Loops	No	Cohu	BBS	Fiber			Online
	Esplanade Ave	N/A	N/A	N/A	N/A	County - 85%	PPLT	Permissive	Other	P (TS2 Type 1)	Cobalt	ASC3/NEMA	Loops	No	Axis	BBS	Fiber			Online
Gilbert St	Cerritos Ave	N/A	N/A	N/A	N/A	County - 75%	PPLT	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Cellular			Online
	Chanticleer Rd	N/A	N/A	N/A	N/A	County	PPLT	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online
Hewes St	Spring St	N/A	N/A	N/A	N/A	County	Permissive	Permissive	Other	P (TS1)	ASC/3	ASC3/NEMA	Loops	No	N/A	BBS	Cellular			Online
Irvine Ave	University Dr	*	*	*	*	Newport Beach-37.5%	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Mesa Dr	*	*	*	*	Newport Beach-37.5%	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Irvine Blvd	Charloma Dr	*	*	*	*	Tustin - 50%	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Red Hill Ave	*	*	*	*	Tustin - 50%	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Browning Ave	*	*	*	*	Tustin - 25%	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Katella Ave	Wallingsford Rd	*	*	*	*	Los Alamitos - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Magnolia St	*	*	*	*	Stanton/GG - 62%	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Garza Ave	140	N/A	140	N/A	County - 75%	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Loops	No	N/A	UPS	GPS			Local
	Gilbert St	*	*	*	*	Garden Grove - 25%	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Traffic Synchronization Inventory
County of Orange

Corridor	Cross Street Intersection	Cycle Length				Maintenance Responsibility	Operations			Equipment											
		AM	MID	PM	WKND		Left	Right	Other	Cabinet	Type	Software	Detection	Bike Detection	CCTV	Power Backup	Comm	Other ITS	ATMS	Status	
Lincoln Ave	Batavia St	130	130	130	130	County - 50%	Protected	Permissive	Other	P (TS2 Type 2)	ASC/3	ASC3/NEMA	Video	Yes		UPS	Cellular			Online	
	Orange Olive Rd	*	*	*	*	Orange - 63%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Los Alamitos Rd	Bradbury Rd	*	*	*	*	Los Alamitos - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Rossmoor Wy	*	*	*	*	Los Alamitos - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Orangewood Ave	*	*	*	*	Los Alamitos - 75%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MacArthur Blvd	SR-55 EB Off Ramp	*	*	*	*	Caltrans - 50%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Newland St	Hazard Ave	N/A	N/A	N/A	N/A	County - 50%	PPLT	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Cellular			Online	
	Madison Ave	N/A	N/A	N/A	N/A	County	Permissive	Permissive	Other	P (TS2 Type 2)	ASC/3	ASC3/NEMA	Loops	No	N/A	BBS				Local	
Newport Ave	La Colina Dr	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
	La Loma Dr	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
	Dodge Ave	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online	
	Foothill Blvd	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online	
Newport Blvd	Crawford Canyon Rd	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	BBS	Fiber			Online	
	Cowan Heights Dr/ Rockhurst Ave	120	120	120	120	County	Protected	Perm/Overlap	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
O'Neill Dr	Cecil Pasture Rd	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
Oso Pkwy	Plaza Entrance	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
	Morning Trail	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
	Meandering Trail	120	120	120	120	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
	Tesoro Creek Rd	**	**	**	**	Caltrans	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
	SR-241 NB On Ramp	*	*	*	*	Caltrans - 33%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	SR-241 SB Off Ramp	*	*	*	*	Caltrans - 33%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Altura	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
	Bridle Path	N/A	N/A	N/A	N/A	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
Santiago Canyon Rd	Coto de Caza Dr	N/A	N/A	N/A	N/A	County	Protected	Perm/Overlap	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online	
	Orange Park Blvd	*	*	*	*	Orange - 67%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Santa Ana Ave	Mesa Dr	N/A	N/A	N/A	N/A	County - 50%	Permissive	Permissive	Other	P (TS1)	ASC/3	ASC3/NEMA	Loops	No	N/A	BBS	Cellular			Online	
Seal Beach Blvd	Saint Cloud Dr	*	*	*	*	Seal Beach	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
17th St	Prospect Ave/ Laurinda Wy	110	100	110	100	County - 25%	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Loops	No	N/A	BBS	Fiber			Online	
	Holt Ave	110	100	110	100	County	Protected	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online	
	Esplanade Ave/ Carriage Lane	110	100	110	100	County	PPLT	Permissive	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	UPS	Fiber			Online	
	Hewes Ave	110	100	110	100	County	PPLT	Permissive	Other	P (TS2 Type 1)	Cobalt	ASC3/NEMA	Video	Yes	Axis	UPS	Fiber			Online	
	Newport Blvd/ El Camino Real	120	120	120	120	County	Protected	Perm/Overlap	Other	P (TS2 Type 2)	Cobalt	ASC3/NEMA	Video	Yes	Cohu	BBS	Fiber			Online	
Villa Park Rd	Hewes St	130	105	140	105	County	Protected	Permissive	Other	P (TS2 Type 2)	ASC/3	ASC3/NEMA	Loops	No	N/A	BBS	Cellular			Online	

*Ownership and responsibility by other agency
**Ownership by County. Responsibility by Caltrans.

**SECTION 4:
THREE-YEAR PLAN
CAPITAL, OPERATIONS, AND
MAINTENANCE**

3-YEAR OUTLOOK TRAFFIC SIGNAL SYNCHRONIZATION

Funding Needs for Synchronized Operation (Constrained)

Reporting Jurisdiction Expenditures: County of Orange

**Type of Traffic Signal Synchronization Expenditures in Year of Expenditure
Dollars**

MAINTENANCE

PROJECT	FY26/27	FY27/28	FY28/29	TOTAL
Traffic Signal Infrastructure Maintenance	\$350,000	\$350,000	\$350,000	\$1,050,000
Staff, Vehicles, Test Equipment	\$30,000	\$30,000	\$30,000	\$90,000
Communication and Software Maintenance	\$35,000	\$35,000	\$35,000	\$105,000
Subtotal Maintenance	\$415,000	\$415,000	\$415,000	\$1,245,000

CONSTRUCTION

PROJECT	FY26/27	FY27/28	FY28/29	TOTAL
Countywide Signal Synchronization	\$35,000	\$35,000	\$35,000	\$105,000
Fiber Optic installations	-	-	\$500,000	\$500,000
Signalized Intersection Systemic Safety Improvements – Retroreflective Signal Backplates	-	\$1,150,000	-	\$1,150,000
Traffic Signal Replacement	-	\$650,000	\$650,000	\$1,300,000
New Traffic Signal	-	\$1,000,000	-	\$1,000,000
Subtotal Construction	\$35,000	\$2,835,000	\$1,185,000	\$4,055,000

OPERATIONS

PROJECT	FY26/27	FY27/28	FY28/29	TOTAL
Countywide Signal Timing Maintenance	\$30,000	\$30,000	\$30,000	\$90,000
Subtotal Operations	\$30,000	\$30,000	\$30,000	\$90,000
Total	\$480,000	\$3,280,000	\$1,630,000	\$5,390,000

3-YEAR OUTLOOK TRAFFIC SIGNAL SYNCHRONIZATION

Funding Needs for Synchronized Operation (Unconstrained)

Reporting Jurisdiction Expenditures: County of Orange

**Type of Traffic Signal Synchronization Expenditures in Year of Expenditure
Dollars**

MAINTENANCE

PROJECT	FY26/27	FY26/27	FY26/27	TOTAL
Traffic Signal Infrastructure Maintenance	\$375,000	\$375,000	\$375,000	\$1,125,000
Staff, Vehicles, Test Equipment	\$30,000	\$30,000	\$30,000	\$90,000
Communication and Software Maintenance	\$60,000	\$60,000	\$60,000	\$180,000
Subtotal Maintenance	\$465,000	\$465,000	\$465,000	\$1,395,000

CONSTRUCTION

PROJECT	FY26/27	FY27/28	FY28/29	TOTAL
Countywide Signal Synchronization	\$60,000	\$60,000	\$60,000	\$180,000
Fiber Optic Installations	-	-	\$750,000	\$750,000
Signalized Intersection Systemic Safety Improvements – Retroreflective Signal Backplates	-	\$1,150,000	-	\$1,150,000
Traffic Signal Replacement	\$650,000	\$1,300,000	\$1,300,000	\$3,250,000
New Traffic Signal	-	\$1,000,000	\$1,000,000	\$2,000,000
Subtotal Construction	\$710,000	\$3,510,000	\$3,110,000	\$7,330,000

OPERATIONS

PROJECT	FY26/27	FY27/28	FY28/29	TOTAL
Countywide Signal Timing Maintenance	\$50,000	\$50,000	\$50,000	\$150,000
Subtotal Operations	\$50,000	\$50,000	\$50,000	\$150,000
Total	\$1,225,000	\$3,025,000	\$2,875,000	\$8,875,000

**LSSP IMPLEMENTATION –
SIGNAL SYNCHRONIZATION PROJECTS WITH ESTIMATED
COSTS**

Reporting Jurisdiction Expenditures: County of Orange

CORRIDOR	IMPROVEMENT SUMMARY	ESTIMATED COST
Orangethorpe Ave/ Esperanza Road	Traffic Signal Cabinet and Controller, Power Backup System, Video Detection System, Emergency Vehicle Preemption System, CCTV Camera, TMC Communication Upgrade	\$194,100
First Street/Bolsa Avenue	Traffic Signal Controllers, Power Backup System, Video Detection System, CCTV Cameras, Fiber Optics, Pedestrian Equipment Systems	\$305,250
Crown Valley Parkway	Pedestrian Equipment Systems	\$124,300
Antonio Pkwy/Avenida de las Banderas/Avenida Empresa	Traffic Signal Controllers, Power Backup System, Video Detection System, CCTV Cameras, Pedestrian Equipment Systems	\$1,498,680
Various	Interconnect Gap Closures/Upgrades, Traffic Signal Cabinets and Controllers, CCTV Cameras, Communication Circuits and Devices, ITS Component Upgrades	\$1,500,000
	Total Estimated Cost	\$ 3,622,230

**SECTION 5:
SIGNAL SYNCHRONIZATION
TIMING REVIEW, REVISION, AND
ASSESSMENT**

5.0 SIGNAL SYNCHRONIZATION TIMING REVIEW, REVISION, AND ASSESSMENT

The County of Orange has two dedicated signal operations personnel, and contracts out the preventive and extraordinary maintenance of its traffic signal systems. Current contract with Bear Electrical Solutions, Inc for these maintenance services will expire September 30, 2027 and will be renewed for a period of two (2) years up until 2029 at which point it will need to be re-bid. This practice has been effective in maintaining the efficient performance of the County's corridors. Also, the County has taken a proactive approach in upgrading traffic signal systems throughout the County's unincorporated areas. Older controllers were upgraded to current NTCIP compliant controllers for better efficiency. Signal timing at various locations was synchronized for better coordination with adjacent jurisdictions.

As for updating timing plans, the County has taken a proactive approach to monitoring County corridors and upgrading signal timing as needed. As a regular practice, the County corridors are traveled periodically to monitor signal operations and adjustments are made when required. The County has approved and implemented new timing data to incorporate the changing traffic patterns of new major land developments. If a County traffic signal borders any other jurisdiction's signal system, that jurisdiction is informed of any changes to maintain existing coordination on the corridor whenever possible.

In the past few years, the Katella Ave RTSSP project was fully completed/closed out which included equipment and signal timing upgrades. There are additional corridors that have not been fully completed/closed out but have completed the Primary Implementation and Ongoing Operations & Maintenance Phase. These corridors included Orangethorpe Ave/Esperanza Rd and First St/Bolsa Ave. System improvements at these locations varied from signal timing upgrades, controller upgrades, controller cabinet upgrades, CCTV cameras, emergency vehicle preemptions, battery backup systems and fiber optic communication systems. Crown Valley Parkway and Antonio Pkwy/Avenida de las Banderas/Avenida Empresa corridors are currently in the Primary Implementation phase.

Since the last LSSP Update, the County's relocated Traffic Management Center (TMC) in our OC Public Works Headquarters building in Santa Ana has continued to grow; recent TMC work included upgrading Centracs servers for the TMC network in addition to completing TMC fiber optic expansion projects for Chiquita Canyon Road and a remaining portion of the Oso Parkway corridor. The County has a continuous goal of connecting additional signals to our TMC network and has added two additional new signals to our network. Upcoming plans include adding fiber optics on multiple existing roadways due to new future signals, installation of CCTV cameras for newly connected signals and purchasing/installing new TMC workstation support equipment.

For signal synchronization assessment, the County uses performance data gathered from the Iteris ClearGuide software that is currently being used for the OCTA County Signal Synchronization Baseline Project. The performance data provides a normalized, corridor-level performance measure that supports comparison across time periods and identification of meaningful operational changes. Corridor performance was categorized using a Level of Service (LOS) framework adopted from the Highway Capacity Manual (HCM) and LOS thresholds were defined based on the ratio of observed speed to free-flow speed (shown in

Table 1). The intent of this project is countywide traffic signal synchronization to ultimately increase efficiency, safety and sustainability across the County.

COUNTY OF ORANGE

LOCAL SIGNAL SYNCHRONIZATION PLAN

Orange County Corridor Operational Performance
March 2026

Route Number	Route Name	Average Percent of FreeFlow (%) *			Adjusted Level-of-Service (LOS)**			Route Length (mile)
		AM	MD	PM	AM	MD	PM	
298	W WHITTIER BLVD (E) From WHITTIER BLVD to E WHITTIER BLVD (E) To N HARBOR BLVD	78.4	67.5	64.0	C	D	D	2.500
299	E WHITTIER BLVD (W) From N HARBOR BLVD to W WHITTIER BLVD (W) To WHITTIER BLVD	84.0	74.6	70.6	B	C	C	2.501
300	W LA HABRA BLVD (E) From LEFFINGWELL RD to W CENTRAL AVE (E) To N STATE COLLEGE BLVD	81.0	75.1	74.1	B	C	C	4.745
301	W CENTRAL AVE (W) From N STATE COLLEGE BLVD to W LA HABRA BLVD (W) To LEFFINGWELL RD	83.9	76.9	71.1	B	C	C	4.745
302	LAMBERT RD (E) To W LAMBERT RD to LAMBERT RD (E) To VALENCIA AVE	80.9	78.6	76.8	B	C	C	7.471
303	LAMBERT RD (W) From VALENCIA AVE to LAMBERT RD (W) From W LAMBERT RD	84.4	81.2	76.4	B	B	C	7.469
304	W IMPERIAL HWY (E) Between S BEACH BLVD and S BEACH BLVD to CA-90 (E) Between IMPERIAL HWY and YORBA LINDA BLVD	74.0	65.3	63.4	C	D	D	9.479
305	CA-90 (W) Between YORBA LINDA BLVD and YORBA LINDA BLVD to W IMPERIAL HWY (W) Between S BEACH BLVD and S BEACH BLVD	76.5	65.7	62.9	C	D	D	9.490
306	ROSECRANS AVE (E) Between BEACH BLVD and BEACH BLVD to ROSECRANS AVE (E) To N EUCLID ST	79.2	76.9	76.0	C	C	C	2.559
307	ROSECRANS AVE (W) From N EUCLID ST to ROSECRANS AVE (NW) Between BEACH BLVD and BEACH BLVD	81.4	78.9	77.2	B	C	C	2.557
308	W BASTANCHURY RD (NE) From W MALVERN AVE to BASTANCHURY RD (E) Between CA-90 and CA-90	79.3	74.8	73.4	C	C	C	8.207
309	BASTANCHURY RD (W) Between CA-90 and CA-90 to W BASTANCHURY RD (SW) To W MALVERN AVE	79.3	75.8	72.8	C	C	C	8.212
310	YORBA LINDA BLVD (E) From N STATE COLLEGE BLVD to S WEIR CANYON RD (S) Between BISMARCK WAY and OAK CANYON DR	83.9	77.1	76.0	B	C	C	10.826
311	S WEIR CANYON RD (N) From OAK CANYON DR to YORBA LINDA BLVD (W) To N STATE COLLEGE BLVD	83.8	76.8	74.4	B	C	C	10.836
312	LA MIRADA BLVD (SE) From ALONDRA BLVD to (SE) Between E ORANGETHORPE AVE and E ORANGETHORPE AVE	81.5	75.8	73.8	B	C	C	9.221
313	(SE) Between E ORANGETHORPE AVE and E ORANGETHORPE AVE to LA MIRADA BLVD (NW) To ALONDRA BLVD	81.8	75.3	71.1	B	C	C	9.247
314	ARTESIA BLVD (E) Between VALLEY VIEW AVE and VALLEY VIEW AVE to ARTESIA BLVD (E) Between BEACH BLVD and BEACH BLVD	69.3	63.9	62.0	D	D	D	1.765
315	ARTESIA BLVD (W) Between BEACH BLVD and BEACH BLVD to ARTESIA BLVD (W) Between VALLEY VIEW AVE and VALLEY VIEW AVE	72.6	69.3	68.6	C	D	D	1.765
316	COMMONWEALTH AVE (E) Between BEACH BLVD and BEACH BLVD to E COMMONWEALTH AVE (N) Between E CHAPMAN AVE and N	81.1	75.0	73.6	B	C	C	6.722
317	E COMMONWEALTH AVE (S) Between N COMMONWEALTH AVE and E CHAPMAN AVE to COMMONWEALTH AVE (W) Between BEAC	86.2	78.0	74.9	B	C	C	6.722
318	ORANGETHORPE AVE (E) From MOODY ST to ESPERANZA RD (NE) Between NEW RIVER RD and NEW RIVER RD	76.3	70.5	69.8	C	C	D	17.489
319	ESPERANZA RD (SW) Between NEW RIVER RD and NEW RIVER RD to ORANGETHORPE AVE (W)	78.6	72.0	70.5	C	C	C	17.487
320	LA PALMA AVE (E) From DENNI ST to E LA PALMA AVE (NE) To YORBA LINDA BLVD	80.9	76.0	74.2	B	C	C	18.049
321	E LA PALMA AVE (SW) From YORBA LINDA BLVD to LA PALMA AVE (W) To DENNI ST	82.0	76.6	74.7	B	C	C	18.048
322	CARSON ST (E) Between BLOOMFIELD AVE and LINCOLN AVE to E NOHL RANCH RD (E) To N SANTIAGO BLVD	75.1	69.5	67.3	C	D	D	13.379
323	E NOHL RANCH RD (W) From N SANTIAGO BLVD to CARSON ST (W) Between LINCOLN AVE and BLOOMFIELD AVE	77.2	69.9	67.4	C	D	D	13.378
324	BALL RD (E) From KAYLOR AVE to E TAFT AVE (E) To N TUSTIN ST	72.5	69.4	67.7	C	D	D	13.301
325	E TAFT AVE (W) From N TUSTIN ST to BALL RD (W) To KAYLOR AVE	74.3	70.2	67.0	C	C	D	13.301
326	KATELLA AVE (E) to E SANTIAGO CANYON RD (E) To JAMBOREE RD	77.5	74.2	71.4	C	C	C	19.559
327	E SANTIAGO CANYON RD (E) To JAMBOREE RD to KATELLA AVE (E)	80.8	75.2	70.6	B	C	C	19.600
328	CHAPMAN AVE (NE) Between VALLEY VIEW ST and VALLEY VIEW ST to E CHAPMAN AVE (E) To JAMBOREE RD	75.4	70.8	68.3	C	C	D	15.715
329	E CHAPMAN AVE (W) From JAMBOREE RD to CHAPMAN AVE (NW) Between VALLEY VIEW ST and VALLEY VIEW ST	78.0	69.6	65.4	C	D	D	15.707
330	GARDEN GROVE BLVD (E) To GOLDENWEST ST to W MEMORY LN (E) From N BRISTOL ST	74.0	67.4	64.5	C	D	D	7.100
331	W MEMORY LN (W) To N BRISTOL ST to GARDEN GROVE BLVD (W) From GOLDENWEST ST	75.3	66.8	63.5	C	D	D	7.101
332	E 2ND ST (E) Between ISLAND VILLAGE DR and WESTMINSTER BLVD to E 17TH ST (SE) To EL CAMINO LN	72.7	67.0	64.8	C	D	D	16.750
333	E 17TH ST (NW) From EL CAMINO LN to E 2ND ST (W) From WESTMINSTER BLVD	75.1	68.4	64.8	C	D	D	16.735
334	BOLSA AVE (E) Between BOLSA CHICA ST and BOLSA CHICA ST to E 1ST ST (E)	75.5	70.7	69.1	C	C	D	11.591
335	E 1ST ST (W) From CABRILLO PARK DR to BOLSA AVE (W) Between BOLSA CHICA ST and BOLSA CHICA ST	78.0	72.5	69.0	C	C	D	11.589
336	EDINGER AVE (E) Between BOLSA CHICA ST and BOLSA CHICA ST to EDINGER AVE (SE)	73.4	68.2	66.3	C	D	D	14.624
337	EDINGER AVE (NW) From IRVINE CENTER DR to EDINGER AVE (W) Between BOLSA CHICA ST and BOLSA CHICA ST	76.4	71.4	66.6	C	C	D	14.634
338	WARNER AVE (E) Between PACIFIC COAST HWY and PACIFIC COAST HWY to WARNER AVE (SE) To RED HILL AVE	70.1	65.7	64.9	C	D	D	13.290
339	WARNER AVE (NW) From RED HILL AVE to WARNER AVE (W) Between PACIFIC COAST HWY and PACIFIC COAST HWY	72.9	66.8	63.8	C	D	D	13.296
340	W SEGERSTROM AVE (E) Between S HARBOR BLVD and S HARBOR BLVD to E DYER RD (SE) To RED HILL AVE	78.0	75.1	75.1	C	C	C	4.548
341	E DYER RD (NW) From RED HILL AVE to W SEGERSTROM AVE (W) Between S HARBOR BLVD and S HARBOR BLVD	77.6	71.4	67.9	C	C	D	4.547
342	TALBERT AVE (SE) Between BEACH BLVD and BEACH BLVD to MACARTHUR BLVD (SW) To E COAST HWY	72.1	66.6	65.4	C	D	D	14.623
343	MACARTHUR BLVD (NE) to TALBERT AVE (W) Between BEACH BLVD and BEACH BLVD	73.6	65.9	62.8	C	D	D	14.624
344	BAKER ST (E) Between HARBOR BLVD and HARBOR BLVD to BAKER ST E (SE) To RED HILL AVE	79.8	74.1	71.9	C	C	C	2.548

COUNTY OF ORANGE

LOCAL SIGNAL SYNCHRONIZATION PLAN

Orange County Corridor Operational Performance
March 2026

Route Number	Route Name	Average Percent of FreeFlow (%) *			Adjusted Level-of-Service (LOS)**			Route Length (mile)
		AM	MD	PM	AM	MD	PM	
345	BAKER ST E (NW) From RED HILL AVE to BAKER ST (W) Between HARBOR BLVD and HARBOR BLVD	84.4	73.3	70.3	B	C	C	2.548
346	ADAMS AVE (E) Between BEACH BLVD and BEACH BLVD to ADAMS AVE (NE)	82.4	74.8	75.7	B	C	C	4.717
347	ADAMS AVE (SW) to ADAMS AVE (W) Between BEACH BLVD and BEACH BLVD	83.1	74.2	72.3	B	C	C	4.715
348	FAIR DR (E) Between HARBOR BLVD and HARBOR BLVD to UNIVERSITY DR (SE) To IRVINE AVE	82.2	76.0	75.2	B	C	C	2.060
349	UNIVERSITY DR (NW) From IRVINE AVE to FAIR DR (W) Between HARBOR BLVD and HARBOR BLVD	83.0	73.0	70.1	B	C	C	2.060
350	HAMILTON AVE (E) Between BROOKHURST ST and BROOKHURST ST to VICTORIA ST (SE) To NEWPORT BLVD	80.8	76.7	77.0	B	C	C	2.624
351	VICTORIA ST (NW) From NEWPORT BLVD to HAMILTON AVE (W) Between BROOKHURST ST and BROOKHURST ST	85.0	75.4	69.6	B	C	D	2.625
352	N BERKELEY AVE (E) From N HARBOR BLVD to N BERKELEY AVE (E) To N LEMON ST	73.3	71.6	69.5	C	C	D	0.261
353	N BERKELEY AVE (W) From N LEMON ST to N BERKELEY AVE (W) To N HARBOR BLVD	78.3	74.3	72.4	C	C	C	0.261
354	SEAL BEACH BLVD (NE) From PACIFIC COAST HWY to N NORWALK BLVD (N) To E WARDLOW RD	78.4	73.3	70.0	C	C	C	5.807
355	N NORWALK BLVD (S) From E WARDLOW RD to SEAL BEACH BLVD (SW) To PACIFIC COAST HWY	80.4	74.2	75.7	B	C	C	5.796
356	BOLSA CHICA ST (NE) Between WARNER AVE and WARNER AVE to VALLEY VIEW ST (N) To VALLEY VIEW AVE	71.4	64.2	62.0	C	D	D	11.204
357	VALLEY VIEW ST (S) From VALLEY VIEW AVE to BOLSA CHICA ST (SE) Between WARNER AVE and WARNER AVE	72.5	67.9	67.9	C	D	D	11.197
358	GOLDENWEST ST (NE) Between PACIFIC COAST HWY and PACIFIC COAST HWY to KNOTT AVE (N) To EXIT: 117	75.5	69.6	66.5	C	D	D	14.470
359	KNOTT AVE (S) From EXIT: 117 to GOLDENWEST ST (SW) Between PACIFIC COAST HWY and PACIFIC COAST HWY	76.3	71.7	70.5	C	C	C	14.462
360	BEACH BLVD (N) Between PACIFIC COAST HWY and PACIFIC COAST HWY to N BEACH BLVD (N) To W WHITTIER BLVD	73.4	64.8	60.7	C	D	D	20.726
361	N BEACH BLVD (S) From W WHITTIER BLVD to BEACH BLVD (S) Between PACIFIC COAST HWY and PACIFIC COAST HWY	72.6	67.6	65.9	C	D	D	20.718
362	MAGNOLIA ST (NE) From PACIFIC COAST HWY to MAGNOLIA AVE (N) To W COMMONWEALTH AVE	72.5	66.6	63.1	C	D	D	15.989
363	MAGNOLIA AVE (S) From W COMMONWEALTH AVE to MAGNOLIA ST (SW) To PACIFIC COAST HWY	72.6	69.4	67.5	C	D	D	15.989
364	BROOKHURST ST (NE) From PACIFIC COAST HWY to S BROOKHURST RD (N) To W COMMONWEALTH AVE	70.2	63.2	60.0	C	D	D	16.451
365	S BROOKHURST RD (S) From W COMMONWEALTH AVE to BROOKHURST ST (SW) To PACIFIC COAST HWY	71.5	65.9	64.1	C	D	D	16.445
366	EUCLID ST (NE) to S EUCLID ST (N) To W IMPERIAL HWY	71.6	65.3	61.3	C	D	D	15.871
367	S EUCLID ST (S) From W IMPERIAL HWY to EUCLID ST (SW)	72.1	67.8	66.1	C	D	D	15.862
368	HARBOR BLVD (NW) Between NEWPORT BLVD and NEWPORT BLVD to N HARBOR BLVD (NE) To PEPPERTREE DR	70.8	63.8	58.6	C	D	E	21.561
369	N HARBOR BLVD (N) to HARBOR BLVD (NW) Between NEWPORT BLVD and NEWPORT BLVD	70.4	65.0	63.6	C	D	D	21.729
370	BREA BLVD (NE) From N HARBOR BLVD to BREA CANYON RD (E) To TONNER CANYON RD	81.8	73.8	64.2	B	C	D	5.249
371	BREA CANYON RD (W) From TONNER CANYON RD to BREA BLVD (SW) To N HARBOR BLVD	81.3	77.4	76.1	B	C	C	5.246
372	FAIRVIEW RD (N) From NEWPORT BLVD to FAIRVIEW ST (N) To GARDEN GROVE BLVD	71.9	66.9	60.2	C	D	D	8.440
373	FAIRVIEW ST (S) From GARDEN GROVE BLVD to FAIRVIEW RD (S) To NEWPORT BLVD	71.5	70.8	68.9	C	C	D	8.442
374	(N) Between GARDEN GROVE BLVD and GARDEN GROVE BLVD to N ANAHEIM BLVD (N) To E LA PALMA AVE	77.9	72.7	67.0	C	C	D	5.123
375	N ANAHEIM BLVD (S) From E LA PALMA AVE to (S) Between GARDEN GROVE BLVD and GARDEN GROVE BLVD	80.6	77.1	72.7	B	C	C	5.123
376	(N) Between N LEMON ST and N ANAHEIM BLVD to N LEMON ST (N) To N BERKELEY AVE	68.8	63.4	63.5	D	D	D	2.180
377	N LEMON ST (S) From N BERKELEY AVE to (S) Between N ANAHEIM BLVD and N LEMON ST	70.1	65.0	63.7	C	D	D	2.179
378	BRISTOL ST N (NW) to N BRISTOL ST (N)	72.3	67.0	59.2	C	D	E	9.124
379	N BRISTOL ST (N) to BRISTOL ST S (SE)	72.1	67.9	63.9	C	D	D	9.211
380	THE CITY DR S (NE) to N STATE COLLEGE BLVD (W) To W CENTRAL AVE	72.1	65.2	63.6	C	D	D	11.619
381	N STATE COLLEGE BLVD (E) From W CENTRAL AVE to THE CITY DR S (S)	74.1	68.1	66.4	C	D	D	11.597
382	MAIN ST (NW) Between JAMBOREE RD and JAMBOREE RD to N MAIN ST (N) To W TAFT AVE	69.7	62.5	58.2	D	D	E	10.386
383	N MAIN ST (S) From W TAFT AVE to MAIN ST (SE) Between JAMBOREE RD and JAMBOREE RD	71.2	66.7	63.9	C	D	D	10.384
384	S GRAND AVE (NE) From E DYER RD to N KRAEMER BLVD (N) To E LAMBERT RD	72.6	64.7	63.2	C	D	D	15.038
385	N KRAEMER BLVD (S) From E LAMBERT RD to S GRAND AVE (SW) To E DYER RD	72.3	67.0	66.6	C	D	D	15.044
386	TUSTIN AVE (N) To W 1ST ST to N ROSE DR (N) From E IMPERIAL HWY	76.0	71.5	68.3	C	C	D	11.252
387	N ROSE DR (S) To E IMPERIAL HWY to TUSTIN AVE (S) From W 1ST ST	75.9	72.9	72.0	C	C	C	11.243
388	N LAKEVIEW AVE (NW) From S LAKEVIEW AVE to LAKEVIEW AVE (NE) To YORBA LINDA BLVD	80.8	78.6	77.2	B	C	C	2.834
389	LAKEVIEW AVE (SW) From YORBA LINDA BLVD to N LAKEVIEW AVE (SE) To S LAKEVIEW AVE	79.2	76.7	75.1	C	C	C	2.836
390	CA-90 (W) Between S IMPERIAL HWY and E SANTA ANA CANYON RD to CA-90 (W)	69.7	64.9	60.8	D	D	D	0.788
391	CA-90 (E) to CA-90 (E) Between E SANTA ANA CANYON RD and S IMPERIAL HWY	46.6	44.2	43.6	F	F	F	0.788

COUNTY OF ORANGE

LOCAL SIGNAL SYNCHRONIZATION PLAN

Orange County Corridor Operational Performance
March 2026

Route Number	Route Name	Average Percent of FreeFlow (%) *			Adjusted Level-of-Service (LOS)**			Route Length (mile)
		AM	MD	PM	AM	MD	PM	
392	PACIFIC COAST HWY (SE) To MARINA DR to W COAST HWY (E)	80.1	72.4	71.9	B	C	C	13.541
393	W COAST HWY (W) From NEWPORT AVE to PACIFIC COAST HWY (NW) From MARINA DR	82.9	70.3	63.2	B	C	D	13.566
394	NEWPORT BLVD (N) From 32ND ST to NEWPORT BLVD (NE) To 19TH ST	75.7	57.1	50.1	C	E	E	2.091
395	NEWPORT BLVD (SW) From 19TH ST to NEWPORT BLVD (S) To 32ND ST	83.9	64.6	65.6	B	D	D	2.094
396	NEWPORT AVE (NE) From SYCAMORE AVE to N NEWPORT BLVD (NE)	80.4	73.5	72.6	B	C	C	6.492
397	N NEWPORT BLVD (SW) to NEWPORT AVE (SW) To SYCAMORE AVE	80.2	73.9	71.7	B	C	C	6.494
398	DOVER DR (N) From W COAST HWY to DOVER DR (NE) Between WESTCLIFF DR and WESTCLIFF DR	70.1	58.3	58.9	C	E	E	0.686
399	DOVER DR (SW) Between WESTCLIFF DR and WESTCLIFF DR to DOVER DR (S) To W COAST HWY	66.6	58.6	59.2	D	E	E	0.691
400	RED HILL AVE (NE) From SANTA ANA AVE to RED HILL AVE (NE) To IRVINE BLVD	76.2	69.8	65.5	C	D	D	7.160
401	RED HILL AVE (SW) From IRVINE BLVD to RED HILL AVE (S) To SANTA ANA AVE	74.6	69.9	68.1	C	D	D	7.164
402	(E) Between NEWPORT PL and VON KARMAN AVE to VON KARMAN AVE (NE) To BARRANCA PKWY	75.1	70.0	66.0	C	C	D	3.120
403	VON KARMAN AVE (SW) to (W) Between VON KARMAN AVE and NEWPORT PL	76.1	73.1	70.9	C	C	C	3.116
404	TUSTIN RANCH RD (NE) From BARRANCA PKWY to TUSTIN RANCH RD (E)	80.9	74.8	73.2	B	C	C	5.483
405	TUSTIN RANCH RD (W) From JAMBOREE RD to TUSTIN RANCH RD (SW)	80.5	74.0	74.9	B	C	C	5.476
406	JAMBOREE RD (NE) Between E COAST HWY and E COAST HWY to JAMBOREE RD (N) Between E SANTIAGO CANYON RD and E SANTIAGO CANYON RD	77.2	70.7	66.0	C	C	D	15.577
407	JAMBOREE RD (N) Between E SANTIAGO CANYON RD and E SANTIAGO CANYON RD to JAMBOREE RD (NE) Between E COAST HWY and E COAST HWY	73.1	66.9	66.5	C	D	D	15.616
408	(E) Between MACARTHUR BLVD and BONITA CANYON DR to CULVER DR (NE) To PORTOLA PKWY	73.6	68.0	64.6	C	D	D	10.444
409	CULVER DR (SW) From PORTOLA PKWY to (NW) Between BONITA CANYON DR and MACARTHUR BLVD	73.6	68.0	65.5	C	D	D	10.464
410	UNIVERSITY DR S (E) From EASTBLUFF DR to JEFFREY RD (NE) To PORTOLA PKWY	75.0	67.8	63.2	C	D	D	9.424
411	JEFFREY RD (SW) From PORTOLA PKWY to UNIVERSITY DR S (W) To EASTBLUFF DR	74.6	68.0	64.1	C	D	D	9.434
412	SHADY CANYON DR (NE) to SAND CANYON AVE (NE)	59.5	55.0	51.7	E	E	E	4.537
413	SAND CANYON AVE (SW) to SHADY CANYON DR (SW)	60.2	56.6	55.9	D	E	E	4.534
414	BAKE PKWY (NE) Between IRVINE CENTER DR and IRVINE CENTER DR to BAKE PKWY (NE) To PORTOLA PKWY	72.2	65.6	65.6	C	D	D	5.783
415	BAKE PKWY (SW) From PORTOLA PKWY to BAKE PKWY (SW) Between IRVINE CENTER DR and IRVINE CENTER DR	74.4	68.0	67.3	C	D	D	5.779
416	LAKE FOREST DR (E) to LAKE FOREST DR (NE) To PORTOLA PKWY	77.3	71.4	70.2	C	C	C	6.332
417	LAKE FOREST DR (SW) From PORTOLA PKWY to LAKE FOREST DR (W)	76.8	71.9	71.7	C	C	C	6.322
418	EL TORO RD (E) From LAGUNA CANYON RD to EL TORO RD (E)	77.6	71.1	70.8	C	C	C	9.369
419	EL TORO RD (W) to EL TORO RD (W) To LAGUNA CANYON RD	74.0	68.0	68.2	C	D	D	9.377
420	LOS ALISOS BLVD (NE) Between PASEO DE VALENCIA and PASEO DE VALENCIA to LOS ALISOS BLVD (NE) To SANTA MARGARITA PKWY	85.8	82.1	80.7	B	B	B	5.060
421	LOS ALISOS BLVD (SW) From SANTA MARGARITA PKWY to LOS ALISOS BLVD (SW) Between PASEO DE VALENCIA and PASEO DE VALENCIA	85.6	82.4	81.5	B	B	B	5.056
422	ALICIA PKWY (N) Between CROWN VALLEY PKWY and CROWN VALLEY PKWY to ALICIA PKWY (NE) To SANTA MARGARITA PKWY	84.2	77.8	77.4	B	C	C	11.385
423	ALICIA PKWY (SW) From SANTA MARGARITA PKWY to ALICIA PKWY (E) Between CROWN VALLEY PKWY and CROWN VALLEY PKWY	85.4	80.1	78.7	B	B	C	11.402
424	LA PAZ RD (NW) Between CROWN VALLEY PKWY and CROWN VALLEY PKWY to LA PAZ RD (SE) To MARGUERITE PKWY	85.6	78.4	77.4	B	C	C	6.542
425	LA PAZ RD (NW) From MARGUERITE PKWY to LA PAZ RD (SE) Between CROWN VALLEY PKWY and CROWN VALLEY PKWY	86.3	79.8	79.6	B	C	C	6.568
426	CROWN VALLEY PKWY (NE) From PACIFIC COAST HWY to CROWN VALLEY PKWY (E) To ANTONIO PKWY	80.5	71.5	69.2	B	C	D	9.243
427	CROWN VALLEY PKWY (W) From ANTONIO PKWY to CROWN VALLEY PKWY (SW) To PACIFIC COAST HWY	80.4	71.9	71.2	B	C	C	9.251
428	(NE) Between PACIFIC PARK DR and OSO PKWY to OSO PKWY (NE)	73.6	70.2	66.3	C	C	D	5.793
429	OSO PKWY (SW) to (SW) Between OSO PKWY and PACIFIC PARK DR	73.5	70.4	67.9	C	C	D	5.794
430	DEL OBISPO ST (E) From CAMINO CAPISTRANO to ORTEGA HWY (E)	77.3	68.1	62.4	C	D	D	3.033
431	ORTEGA HWY (W) to DEL OBISPO ST (W) To CAMINO CAPISTRANO	70.4	67.4	69.0	C	D	D	3.039
435	CAMINO DE LOS MARES (E) to CAMINO DE LOS MARES (N) To DIAMANTE	89.1	84.2	85.6	B	B	B	2.462
436	CAMINO DE LOS MARES (S) From DIAMANTE to CAMINO DE LOS MARES (W)	89.1	81.1	82.1	B	B	B	2.426
437	AVENIDA VISTA HERMOSA (NE) to AVENIDA VISTA HERMOSA (S) To E AVENIDA PICO	90.1	81.5	79.9	A	B	C	2.951
438	AVENIDA VISTA HERMOSA (N) From E AVENIDA PICO to AVENIDA VISTA HERMOSA (SW)	88.8	79.4	78.4	B	C	C	2.977
439	E AVENIDA PICO (N) From W AVENIDA PICO to E AVENIDA PICO (E) To CAMINO LA PEDRIZA	81.5	73.6	74.4	B	C	C	3.990
440	E AVENIDA PICO (W) From CAMINO LA PEDRIZA to E AVENIDA PICO (S) To W AVENIDA PICO	81.3	71.2	71.0	B	C	C	4.015
441	ALTON PKWY (SE) From RED HILL AVE to ALTON PKWY (NE) To IRVINE BLVD	77.1	69.0	65.9	C	D	D	10.090

COUNTY OF ORANGE

LOCAL SIGNAL SYNCHRONIZATION PLAN

Orange County Corridor Operational Performance
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Route Number	Route Name	Average Percent of FreeFlow (%) *			Adjusted Level-of-Service (LOS)**			Route Length (mile)
		AM	MD	PM	AM	MD	PM	
442	ALTON PKWY (SW) From IRVINE BLVD to ALTON PKWY (NW) To RED HILL AVE	76.3	67.7	64.8	C	D	D	10.073
443	BARRANCA PKWY (SE) From RED HILL AVE to MUIRLANDS BLVD (SE) To LA PAZ RD	75.5	69.4	67.7	C	D	D	12.838
444	MUIRLANDS BLVD (NW) From LA PAZ RD to BARRANCA PKWY (NW)	77.6	70.4	67.8	C	C	D	12.828
445	(SE) Between EDINGER AVE and IRVINE CENTER DR to GOLDEN LANTERN ST (SE) To DEL PRADO AVE	79.6	72.5	71.8	C	C	C	19.509
446	GOLDEN LANTERN ST (NW) From DEL PRADO AVE to (SE) Between EDINGER AVE and IRVINE CENTER DR	78.7	71.4	69.0	C	C	D	19.541
447	E 4TH ST (E) From N TUSTIN AVE to TRABUCO RD (E) To MARGUERITE PKWY	68.5	62.8	61.7	D	D	D	15.132
448	TRABUCO RD (W) From MARGUERITE PKWY to E 4TH ST (W) To N TUSTIN AVE	69.8	63.7	61.8	D	D	D	15.123
449	PORTOLA PKWY (SE) From TUSTIN RANCH RD to PORTOLA PKWY (E)	74.0	70.4	68.0	C	C	D	6.429
450	PORTOLA PKWY (W) to PORTOLA PKWY (NW) To TUSTIN RANCH RD	72.6	67.9	64.9	C	D	D	6.381
451	PORTOLA PKWY (SE) From PALOMA to SANTA MARGARITA PKWY (E) To ANTONIO PKWY	72.9	66.1	66.4	C	D	D	7.474
452	SANTA MARGARITA PKWY (W) From ANTONIO PKWY to PORTOLA PKWY (NW) To PALOMA	74.3	69.1	68.9	C	D	D	7.468
453	LAGUNA CANYON RD (SW) to BROADWAY ST (SW) To N COAST HWY	66.7	49.1	51.5	D	F	E	0.641
454	BROADWAY ST (NE) From N COAST HWY to LAGUNA CANYON RD (NE)	80.1	51.9	48.5	B	E	F	0.630
455	JERONIMO RD (SE) From ALTON PKWY to JERONIMO RD (E) To MARGUERITE PKWY	84.4	78.4	77.5	B	C	C	5.194
456	JERONIMO RD (W) From MARGUERITE PKWY to JERONIMO RD (NW) To ALTON PKWY	82.0	77.3	76.8	B	C	C	5.190
457	PASEO DE VALENCIA (SW) Between EL TORO RD and EL TORO RD to PASEO DE VALENCIA (SE) To ALICIA PKWY	79.3	70.4	71.7	C	C	C	1.805
458	PASEO DE VALENCIA (NW) From ALICIA PKWY to PASEO DE VALENCIA (N) From EL TORO RD	74.4	63.2	66.8	C	D	D	1.827
459	ALISO CREEK RD (SE) From GLENWOOD DR to ALISO CREEK RD (NE) To MOULTON PKWY	78.9	71.3	72.7	C	C	C	4.328
460	ALISO CREEK RD (SW) From MOULTON PKWY to ALISO CREEK RD (NW) To GLENWOOD DR	79.2	69.9	69.9	C	D	D	4.309
461	CABOT RD (S) Between OSO PKWY and OSO PKWY to CABOT RD (S) To PASEO DE COLINAS	86.2	78.5	77.5	B	C	C	2.260
462	CABOT RD (N) From PASEO DE COLINAS to CABOT RD (N) Between OSO PKWY and OSO PKWY	84.7	76.8	74.7	B	C	C	2.258
463	PASEO DE COLINAS (E) Between GOLDEN LANTERN and GOLDEN LANTERN to PASEO DE COLINAS (E)	82.2	78.7	77.7	B	C	C	1.226
464	PASEO DE COLINAS (W) to PASEO DE COLINAS (SW) Between GOLDEN LANTERN and GOLDEN LANTERN	77.8	72.7	70.8	C	C	C	1.232
465	MARGUERITE PKWY (SW) Between SANTA MARGARITA PKWY and SANTA MARGARITA PKWY to MARGUERITE PKWY (S)	81.3	74.0	73.0	B	C	C	7.948
466	MARGUERITE PKWY (N) to MARGUERITE PKWY (N) Between SANTA MARGARITA PKWY and SANTA MARGARITA PKWY	79.9	70.7	70.2	C	C	C	7.945
467	NIGUEL RD (S) Between ALICIA PKWY and ALICIA PKWY to NIGUEL RD (SW) To PACIFIC COAST HWY	89.9	81.7	81.8	B	B	B	4.238
468	NIGUEL RD (NE) From PACIFIC COAST HWY to NIGUEL RD (NW) Between ALICIA PKWY and ALICIA PKWY	87.2	78.2	77.2	B	C	C	4.239
469	CAMINO CAPISTRANO (SE) To OLD MISSION RD to CAMINO CAPISTRANO (S) From VICTORIA BLVD	81.1	69.4	68.6	B	D	D	2.965
470	CAMINO CAPISTRANO (N) To VICTORIA BLVD to CAMINO CAPISTRANO (NW) From OLD MISSION RD	80.5	65.8	65.4	B	D	D	2.960
471	ANTONIO PKWY (S) From AVENIDA DE LAS FLORES to ANTONIO PKWY (S)	75.8	72.8	71.9	C	C	C	10.744
472	ANTONIO PKWY (N) to ANTONIO PKWY (NW) To AVENIDA DE LAS FLORES	76.9	72.7	71.8	C	C	C	10.712
473	W COAST HWY (E) to EL CAMINO REAL (SE)	90.1	74.2	73.1	A	C	C	26.461
474	EL CAMINO REAL (NW) to W COAST HWY (W) From NEWPORT AVE	89.5	72.1	70.5	B	C	C	26.630
475	N SANTIAGO BLVD (N) From E NOHL RANCH RD to E SANTA ANA CANYON RD (E) To S GYPSUM CANYON RD	85.3	77.4	60.5	B	C	D	8.185
476	E SANTA ANA CANYON RD (W) From S GYPSUM CANYON RD to N SANTIAGO BLVD (S) To E NOHL RANCH RD	84.1	79.4	78.7	B	C	C	8.196
477	E 17TH ST (E) Between NEWPORT BLVD and NEWPORT BLVD to WESTCLIFF DR (SE) To DOVER DR	72.3	58.5	60.0	C	E	D	1.318
478	WESTCLIFF DR (NW) to E 17TH ST (W) Between NEWPORT BLVD and NEWPORT BLVD	71.8	51.7	51.8	C	E	E	1.305
530	GLENWOOD DR (W) to OSO PKWY (NE)	75.5	71.0	67.4	C	C	D	10.470
531	OSO PKWY (SW) to GLENWOOD DR (E)	75.0	70.4	67.7	C	C	D	10.458
532	CERRITOS AVE (W) to MOODY ST (N)	79.8	76.3	74.3	C	C	C	3.354
533	MOODY ST (S) to CERRITOS AVE (E)	83.0	79.8	77.1	B	C	C	3.353
546	N SANTIAGO BLVD (N) From E NOHL RANCH RD to E SANTA ANA CANYON RD (E) To S GYPSUM CANYON RD	85.3	77.4	60.5	B	C	D	8.185
547	E SANTA ANA CANYON RD (W) From S GYPSUM CANYON RD to N SANTIAGO BLVD (S) To E NOHL RANCH RD	84.1	79.4	78.7	B	C	C	8.196
550	LAGUNA CANYON RD (NE) to BROADWAY ST (NE) From N COAST HWY	87.6	69.1	76.3	B	D	C	7.802
551	BROADWAY ST (SW) To N COAST HWY to LAGUNA CANYON RD (SW)	85.6	73.2	65.6	B	C	D	7.882
552	W COAST HWY (E) to CA-1 (S)	90.7	72.7	71.4	A	C	C	19.190
553	CA-1 (N) to W COAST HWY (W) From NEWPORT AVE	90.2	70.6	68.8	A	C	D	19.241

Orange County Corridor Operational Performance
March 2026

Route Number	Route Name	Average Percent of FreeFlow (%) *			Adjusted Level-of-Service (LOS)**			Route Length (mile)
		AM	MD	PM	AM	MD	PM	
554	S GRAND AVE (NE) From E DYER RD to S GLASSELL ST (N) To E LA VETA AVE	68.1	61.3	59.3	D	D	E	5.029
555	S GLASSELL ST (S) From E LA VETA AVE to S GRAND AVE (SW) To E DYER RD	67.8	66.1	66.4	D	D	D	5.029
556	N GLASSELL ST (N) From E PALM AVE to N KRAEMER BLVD (N) To E LAMBERT RD	76.6	70.2	68.9	C	C	D	9.233
557	N KRAEMER BLVD (S) From E LAMBERT RD to N GLASSELL ST (S) To E PALM AVE	76.2	70.7	70.0	C	C	C	9.238
562	PACIFIC COAST HWY (SE) to S EL CAMINO REAL (SE) To AVENIDA SAN LUIS REY	91.0	78.4	77.7	A	C	C	6.539
563	S EL CAMINO REAL (NW) From AVENIDA SAN LUIS REY to PACIFIC COAST HWY (NW) To DOHENY PARK RD	90.8	77.0	75.8	A	C	C	6.542
570	PACIFIC COAST HWY (SE) to CALLE DEL COMERCIO (S) To AVENIDA SAN LUIS REY	90.8	78.2	77.4	A	C	C	6.626
571	CALLE DEL COMERCIO (N) From AVENIDA SAN LUIS REY to PACIFIC COAST HWY (NW) To DOHENY PARK RD	90.2	76.6	75.4	A	C	C	6.567

* Source: Iteris ClearGuide

** Adjusted Level-of-Service (LOS) Definition

LOS	Desirable Speed
A	Average Travel Speed exceeds 90% of the base free-flow speed
B	Average Travel Speed is between 80% and 90% of the base free-flow speed
C	Average Travel Speed is between 70% and 80% of the base free-flow speed
D	Average Travel Speed is between 60% and 70% of the base free-flow speed
E	Average Travel Speed is between 50% and 60% of the base free-flow speed
F	Average Travel Speed is less than 50% of the base free-flow speed

Table 1 Speed-Based Level of Service (LOS) Criteria

LOS	Speed(% of Free-Flow)	Operational Description
A	> 90%	Uncongested operations with minimal delay and favorable progression
B	80% – 90%	Stable operations with slight reductions in travel speed
C	70% – 80%	Acceptable operations with moderate delay and some progression disruption
D	60% – 70%	Approaching unstable flow with noticeable delay and reduced progression
E	50% – 60%	Unstable operations with significant delay; near capacity conditions
F	< 50%	Oversaturated conditions with substantial delay and poor progression

SIGNAL SYNCHRONIZATION TIMING REVIEW, REVISION, AND ASSESSMENT

LOCAL AGENCY CORRIDOR	TIMING REVIEWED (Past 3 Years)	DID TIMING REQUIRE AN UPDATE?	TIMING UPDATE RESULTS (if available)					
			Average Speed		Stops per Mile		Green per Red	
			Before	After	Before	After	Before	After
Orangethorpe Ave/ Esperanza Rd	2024	YES	26.3	30.3	1.3	1.0	2.3	3.1
First St/Bolsa Ave	2025	YES	20.6	23.3	1.6	1.0	2.0	3.8
Crown Valley Pkwy	Pending	Pending	-	-	-	-	-	-