

# District 12 Mobility Performance Report

2023 3<sup>rd</sup> Quarter

**DEPARTMENT OF TRANSPORTATION**

October 31, 2023

District 12 Traffic Operations Northwest

**EXECUTIVE SUMMARY****Overview**

Caltrans District 12 (Orange County) is located in southern California and is adjacent to District 7 (Los Angeles), District 8 (San Bernardino), and District 11 (San Diego). As of April 1, 2020, the total population in Orange County was 3,010,232. Orange County encompasses 794 square miles, and includes 34 cities, and 17 State highway routes. The county has 1,059 lane miles of general purpose lanes and 226 lane miles of High-Occupancy Vehicle (HOV) lanes, which is one of California's largest HOV lane networks. Orange County is the third most populous county in California, the sixth-most populous in the United States, and more populous than twenty-one U.S. states. Its county seat is Santa Ana. It is the second most densely populated county in the state.

The Mobility Performance quarterly analysis compares information from the most recent quarter and the previous 4 quarters, involving the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Detector Health

This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The Mobility Performance Report uses congestion at two speed thresholds: delay from vehicles traveling below 35 MPH and delay from vehicles traveling

below 60 MPH. The 35 MPH limit represents severe congestion while the 60 MPH limit represents light and heavy congestion. These thresholds/limits are set by Caltrans and are based upon engineering experience and District input.

## FINDINGS

In the 3<sup>rd</sup> quarter of 2023, total delay equaled to 1.3 million vehicle hours of delay (VHD) at the 35 MPH speed threshold and 4.3 million VHD at 60 MPH threshold. Compared to the previous quarter, there was a 16.3 percent decrease in 35 MPH VHD and 18.1 percent decrease in 60 MPH VHD.

The average weekday VHD experienced in this quarter was approximately 17 thousand VHD at 35 MPH and 56 thousand VHD at 60 MPH. Compared to the previous quarter, there was 14.1 percent decrease in 35 MPH VHD and 16 percent decrease in 60 mph VHD.

### Top 10 Bottlenecks for the 3<sup>rd</sup> Quarter of 2023

Co	Shift	Fwy	Dir	Name	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
Ora	PM	I405	N	TMS 2417 NB	20.81	21.039	33.77	-118.05	62	3.22	113,134.20	13,165.00
Ora	PM	SR57	N	TONNER	11.27	22	33.94	-117.88	62	1.53	62,373.40	15,870.00
Ora	PM	SR55	N	TAFT	15.78	15.8	33.82	-117.83	61	3.05	35,995.70	12,285.00
Ora	PM	SR91	E	GROVE	26.23	7.86	33.85	-117.85	58	1.99	31,131.40	10,665.00
Ora	PM	SR55	N	DYER 2	8.12	R8.12	33.71	-117.85	64	1.51	28,545.60	12,195.00
Ora	PM	I5	N	4TH	103.48	31.23	33.75	-117.84	49	1.00	28,091.80	10,635.00
Ora	PM	I405	N	BROOKHUR2	13.74	13.97	33.71	-117.96	40	2.59	22,955.00	3,775.00
Ora	PM	I405	N	LOCATION 5013 NB	12.89	13.122	33.70	-117.94	43	2.51	22,106.30	2,325.00
Ora	PM	SR57	N	TONNER	11.27	22	33.94	-117.88	62	1.10	18,382.00	15,565.00
Ora	PM	I5	S	RED ROBIN	91.53	19.33	33.62	-117.71	64	0.88	18,282.80	10,475.00

## 2023 Q3 Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2022</td><td>3.35</td></tr> <tr><td>2023</td><td>3.38</td></tr> <tr><td>2023</td><td>3.4</td></tr> </table>	Year	Q3	2022	3.35	2023	3.38	2023	3.4	Over one year ago	Over last quarter
		Year	Q3								
		2022	3.35								
2023	3.38										
2023	3.4										
1.4%	0.5%										
↑	↑										
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2022</td><td>1.4</td></tr> <tr><td>2023</td><td>1.5</td></tr> <tr><td>2023</td><td>1.3</td></tr> </table>	Year	Q3	2022	1.4	2023	1.5	2023	1.3	Over one year ago	Over last quarter
		Year	Q3								
		2022	1.4								
2023	1.5										
2023	1.3										
-6.2%	-16.3%										
↓	↓										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2022</td><td>18</td></tr> <tr><td>2023</td><td>20</td></tr> <tr><td>2023</td><td>17</td></tr> </table>	Year	Q3	2022	18	2023	20	2023	17	Over one year ago	Over last quarter
		Year	Q3								
		2022	18								
2023	20										
2023	17										
-6.5%	-14.1%										
↓	↓										
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2022</td><td>5</td></tr> <tr><td>2023</td><td>5.2</td></tr> <tr><td>2023</td><td>4.3</td></tr> </table>	Year	Q3	2022	5	2023	5.2	2023	4.3	Over one year ago	Over last quarter
		Year	Q3								
		2022	5								
2023	5.2										
2023	4.3										
-14.5%	-18.1%										
↓	↓										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2022</td><td>67</td></tr> <tr><td>2023</td><td>67</td></tr> <tr><td>2023</td><td>56</td></tr> </table>	Year	Q3	2022	67	2023	67	2023	56	Over one year ago	Over last quarter
		Year	Q3								
		2022	67								
2023	67										
2023	56										
-15.4%	-16%										
↓	↓										

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Monday -29.1% ↓	Friday -19.4% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	-
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		8 AM -22.5% ↓	4 PM -17.1% ↓
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		6 PM 8.6% ↑	7 PM 26.4% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		10 AM -14.6% ↓	3 PM -34.7% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		3 PM 12.9% ↑	9 AM 75.6% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		12 PM -50.5% ↓	1 PM -50.2% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		4 PM 34% ↑	7 PM 21.5% ↑

Measure	Graph	Percentage Change	
<p><b>Total Vehicle Hours of Delay (VHD) by County at 35 mph</b></p>	<p>Hours (Millions)</p> <p>■ 2022 Q3 ■ 2023 Q2 ■ 2023 Q3</p> <p>Orange</p>	<p>Largest Magnitude Decrease over one year ago</p>	<p>Largest Magnitude Decrease over last quarter</p>
		<p>Orange -6.2% ↓</p>	<p>Orange -16.3% ↓</p>
		<p>Largest Magnitude Increase over one year ago</p>	<p>Largest Magnitude Increase over last quarter</p>
		<p>—</p>	<p>—</p>
<p><b>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</b></p>	<p>Miles</p> <p>■ 2022 Q3 ■ 2023 Q2 ■ 2023 Q3</p> <p>AM Peak (6 AM to 10 AM)    Off-Peak Day (10 AM to 3 PM)    PM Peak (3 PM to 7 PM)    Off-Peak Night (7 PM to 6 AM)</p>	<p>Largest Magnitude Decrease over one year ago</p>	<p>Largest Magnitude Decrease over last quarter</p>
		<p>AM Peak -24.2% ↓</p>	<p>PM Peak -14.8% ↓</p>
		<p>Largest Magnitude Increase over one year ago</p>	<p>Largest Magnitude Increase over last quarter</p>
		<p>—</p>	<p>—</p>
<p><b>Average Number of Good and Bad Detectors</b></p>	<p>Number of Detectors</p> <p>■ Average of Good ■ Average of Bad</p> <p>2022 Q3    2023 Q2    2023 Q3</p>	<p>Change in Good over one year ago</p>	<p>Change in Good over last quarter</p>
		<p>-22% ↓</p>	<p>-12% ↓</p>
		<p>Change in Bad over one year ago</p>	<p>Change in Bad over last quarter</p>
		<p>96% ↑</p>	<p>51% ↑</p>

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2023 Q3-2022 Q3		Difference 2023 Q3-2023 Q2		Rank		
		2022 Q3	2023 Q2	2023 Q3	Absolute	Percentage	Absolute	Percentage	2022 Q3	2023 Q2	2023 Q3
I405	Orange	238,732	284,571	352,817	114,085	47.8%	68,246	24.0%	3	3	1
I5	Orange	346,018	423,119	311,771	-34,247	-9.9%	-111,348	-26.3%	1	1	2
SR55	Orange	204,207	240,421	226,201	21,994	10.8%	-14,220	-5.9%	4	4	3
SR91	Orange	335,081	351,134	189,339	-145,741	-43.5%	-161,795	-46.1%	2	2	4
SR57	Orange	177,928	170,352	147,799	-30,129	-16.9%	-22,554	-13.2%	5	5	5
SR22	Orange	46,605	34,900	22,738	-23,866	-51.2%	-12,162	-34.8%	6	6	6
I605	Orange	3,645	8,848	16,983	13,339	366.0%	8,135	91.9%	9	9	7
SR241	Orange	13,629	23,092	16,088	2,459	18.0%	-7,004	-30.3%	7	7	8
SR73	Orange	11,176	8,981	8,232	-2,943	-26.3%	-749	-8.3%	8	8	9
SR133	Orange	3,604	283	2,842	-762	-21.1%	2,559	904.6%	10	11	10
SR261	Orange	162	759	241	80	49.2%	-518	-68.2%	11	10	11
SR74	Orange	5	5	5	0	0.0%	0	0.0%	13	12	12
SR142	Orange	64	3	3	-61	-95.9%	0	0.0%	12	13	13
SR1	Orange	0	0	0	0		0				
<b>TOTALS</b>		<b>1,380,853</b>	<b>1,546,468</b>	<b>1,295,059</b>	<b>-85,795</b>	<b>-6.2%</b>	<b>-251,410</b>	<b>-16.3%</b>			