

# District 12 Mobility Performance Report

2017 4<sup>th</sup> Quarter

**DEPARTMENT OF TRANSPORTATION**

January 29, 2018  
District 12 TMC

## DISTRICT 12 MOBILITY PERFORMANCE REPORT

---

2017 4<sup>th</sup> Quarter

### EXECUTIVE SUMMARY

#### Overview

Caltrans District 12 (Orange County) is located in southern California and is neighbors with District 7 (Los Angeles), District 8 (San Bernardino), and District 11 (San Diego). As of July 2016 the total population in Orange County was 3,172,532. 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 MPR 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 fourth quarter, at 35 mph, the total delay equaled to 2.7 million vehicle hours of delay (VHD), which was 3.8% greater than the third quarter of 2.6 million VHD. And at 60 mph, the total delay was 6.8 million VHD, which was 4.4% less than the third quarter of 7.1 million VHD.

The average weekday VHD, in the fourth quarter, was 37 thousand hours of delay at 35 MPH, which was the same VHD from the third quarter of 37 thousand of VHD. While the VHD at 60 MPH was 94 thousand hours of delay, which was a decrease of 4.3%, from 98 thousand hours of delay during the third quarter.

### Top 10 Bottlenecks for the 4<sup>th</sup> Quarter

Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
I405-N	BEACH 2	PM	16.53	16.76	59	5.030508	134412.4	12280
SR55-N	EDINGER 2	PM	9.41	9.41	48	3.108333	63955.4	8500
I405-S	WARNER	AM	14.49	14.72	56	3.921429	49008.9	7930
I405-N	BROOKHUR2	PM	13.74	13.97	55	4.010909	42176.1	5910
I405-S	HARVARD	PM	5.98	6.21	58	1.713793	39182.1	11005
SR91-E	TUSTIN	PM	26.733	8.36	55	2.801818	21757.5	8930
I405-N	BUSHARD	PM	14.31	14.54	52	4.042308	21639.8	8700
I405-S	BUSHARD	AM	14.31	14.54	48	4.458333	21617.4	3845
I5-S	S OF 22	AM	105.988	33.8	56	1.121429	20904.9	9385
I5-N	1ST	PM	103.051	30.8	55	0.705455	19767.5	11600

## Quarterly Mobility Statistics

### 2017 Q4 Quarterly Mobility Statistics District 12

Measure	Graph	Percentage Change									
		Over one year ago	Over last quarter								
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2016</td><td>3.3</td></tr> <tr><td>2017</td><td>3.5</td></tr> <tr><td>2017</td><td>3.6</td></tr> </table>	Year	Q4	2016	3.3	2017	3.5	2017	3.6	6.7%	1.6%
Year	Q4										
2016	3.3										
2017	3.5										
2017	3.6										
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2016</td><td>3.4</td></tr> <tr><td>2017</td><td>2.6</td></tr> <tr><td>2017</td><td>2.7</td></tr> </table>	Year	Q4	2016	3.4	2017	2.6	2017	2.7	-22.2%	2.2%
Year	Q4										
2016	3.4										
2017	2.6										
2017	2.7										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2016</td><td>50</td></tr> <tr><td>2017</td><td>37</td></tr> <tr><td>2017</td><td>37</td></tr> </table>	Year	Q4	2016	50	2017	37	2017	37	-24.8%	1.6%
Year	Q4										
2016	50										
2017	37										
2017	37										
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2016</td><td>8</td></tr> <tr><td>2017</td><td>7.1</td></tr> <tr><td>2017</td><td>6.8</td></tr> </table>	Year	Q4	2016	8	2017	7.1	2017	6.8	-14.4%	-4.8%
Year	Q4										
2016	8										
2017	7.1										
2017	6.8										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2016</td><td>114</td></tr> <tr><td>2017</td><td>98</td></tr> <tr><td>2017</td><td>94</td></tr> </table>	Year	Q4	2016	114	2017	98	2017	94	-17.7%	-4.3%
Year	Q4										
2016	114										
2017	98										
2017	94										

**2017 Q4 Quarterly Mobility Statistics  
District 12**

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
		Thursday -20.9% ↓	Friday -17.2% ↓
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
		5 PM -28.1% ↓	4 PM -9.1% ↓
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
		6 PM -32.1% ↓	11 AM -40.6% ↓
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
		10 AM -53.6% ↓	12 PM -19.2% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		2 PM 38.2% ↑	5 PM 266.3% ↑

2017 Q4 Quarterly Mobility Statistics  
District 12

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Orange -22.2% ↓	—
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		PM Peak -24.2% ↓	Off-Peak Day -17.7% ↓
Average Number of Good and Bad Detectors		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		—	AM Peak 11.7% ↑
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-7% ↓	-6% ↓
Average Number of Good and Bad Detectors		Change in Bad over one year ago	Change in Bad over last quarter
		44% ↑	32% ↑

**2017 Q4 Quarterly Mobility Statistics  
District 12**

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2017 Q4-2016 Q4		Difference 2017 Q4-2017 Q3		Rank		
		2016 Q4	2017 Q3	2017 Q4	Absolute	Percentage	Absolute	Percentage	2016 Q4	2017 Q3	2017 Q4
I405	Orange	861,144	780,970	731,993	-129,151	-15.0%	-48,977	-6.3%	1	1	1
I5	Orange	796,834	522,741	543,515	-253,319	-31.8%	20,774	4.0%	2	2	2
SR55	Orange	514,524	418,170	381,052	-133,472	-25.9%	-37,118	-8.9%	4	3	3
SR91	Orange	546,947	372,390	374,128	-172,819	-31.6%	1,738	0.5%	3	4	4
SR57	Orange	408,229	217,560	303,981	-104,248	-25.5%	86,421	39.7%	5	5	5
SR22	Orange	157,439	148,581	169,251	11,813	7.5%	20,671	13.9%	6	6	6
SR73	Orange	85,727	108,567	85,869	142	0.2%	-22,698	-20.9%	7	7	7
SR241	Orange	45,957	29,597	52,639	6,682	14.5%	23,042	77.9%	8	8	8
I605	Orange	23,096	21,261	30,944	7,848	34.0%	9,684	45.5%	9	9	9
SR133	Orange	6,730	4,678	7,798	1,068	15.9%	3,120	66.7%	10	10	10
SR261	Orange	535	113	1,509	974	181.9%	1,396	1232.9%	11	12	11
SR1	Orange	0	0	51	51		51				12
SR39	Orange	0	274	0	0		-274	-99.9%		11	13
SR142	Orange	0	0	0	0		0				
SR74	Orange	0	0	0	0		0				