District 07 Mobility Performance Report

2016 Fourth Quarter

DEPARTMENT OF TRANSPORTATION

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2016 Fourth Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 7 contains two counties located in coastal southern California: Los Angeles and Ventura Counties. Both counties are urban counties, with Los Angeles as the most populous county in the United States at almost 10.1 million residents and Ventura County with 848,000 residents. Although these are urban counties, they do contain a large amount of sparsely populated National Forest and National Recreation Area land.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT))
- Vehicle Hours of Delay (VHD), Bottleneck Locations
- Lost Lane Miles (equivalent lost productivity)
- 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 presents congestion information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

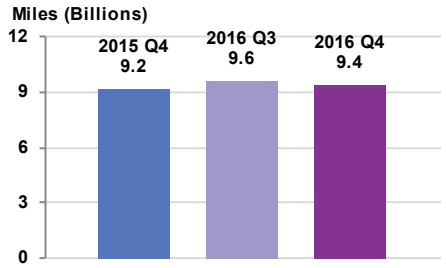
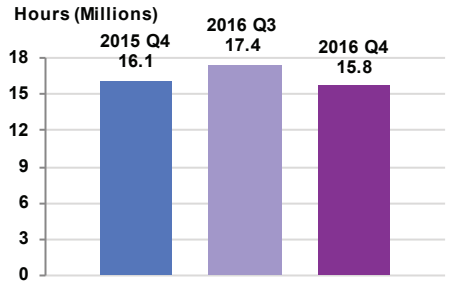
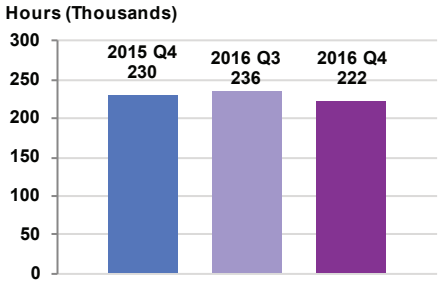
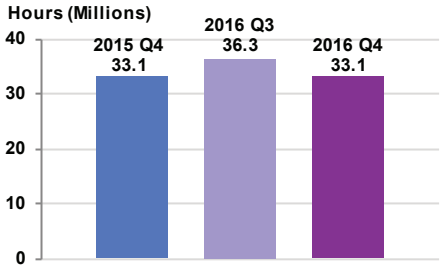
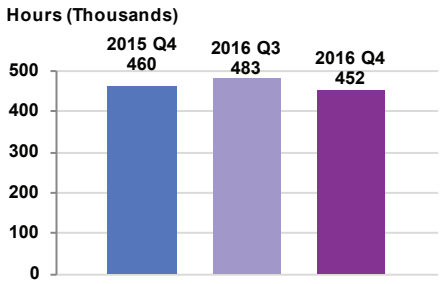
In the fourth quarter total delay equaled 15.8 million vehicle hours of delay (VHD) at the 35 mph speed threshold, and 33.1 million VHD at the 60 mph threshold, a decrease of 9 percent and 8.8 percent respectively from the third quarter. The average weekday delay experienced in this quarter was approximately 222 thousand VHD at 35 mph a decrease of 6.2 percent of the third quarter, and 452 thousand VHD at 60 mph, a decrease of 6.4 percent. In general, delays were down about 8 percent from the third quarter and down about 3 percent from a year ago. The fourth quarter delay readings are mostly effected by the 6 percent drop in the detector health. Most of these defected loops are in the major construction zone of I-10 freeway widening project which includes adding HOV lanes in both directions.

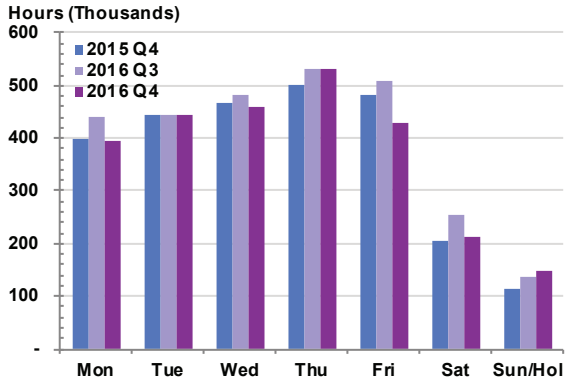
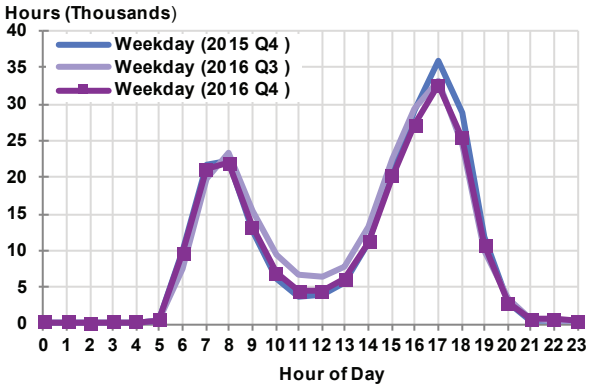
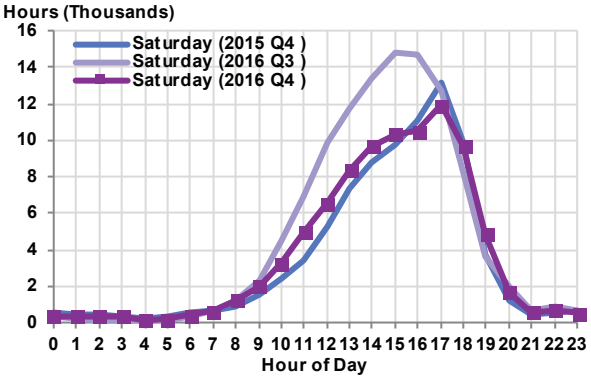
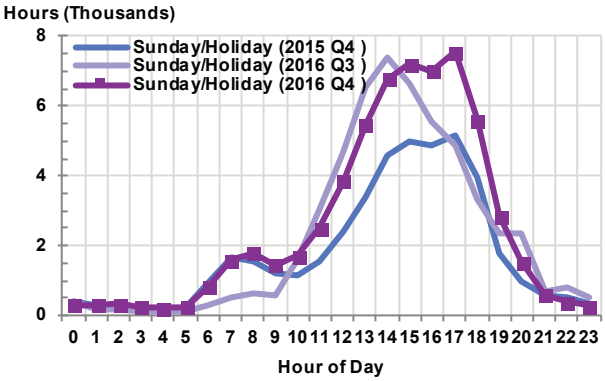
Thursdays and then Wednesdays are the most congested days of the week, with peak hours extends from 6:00 am to 9:30 am and from 2:30 pm to 7:00 pm, while the peak hour in the weekend (Saturday and Sunday) traffic is between 1:00 pm and 5:00 pm

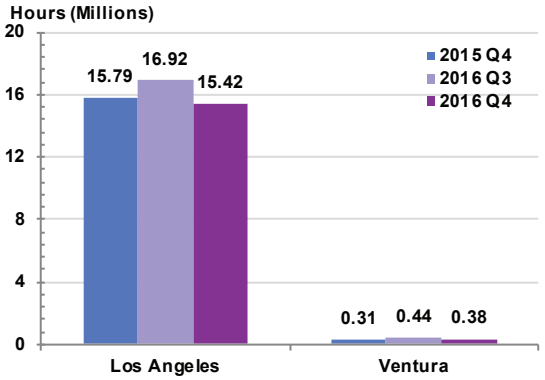
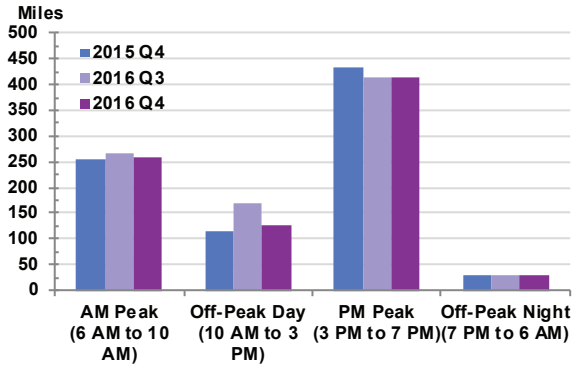
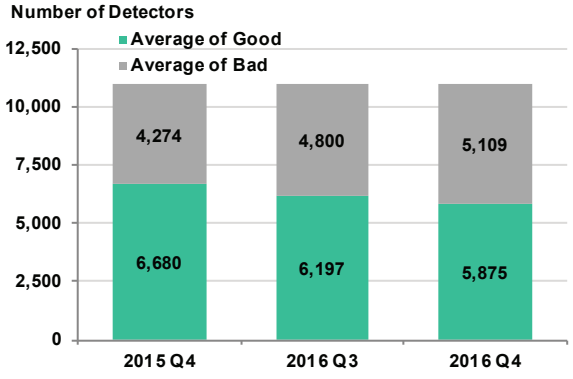
Top Ten Bottlenecks for the fourth Quarter

Rank	Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Daily Duration (hrs)
1	I405-N	Nordhoff St.	PM	68.642	44.87	57	8.75	360,212	4.3
2	I405-S	Lucerne St.	PM	33.802	10.03	56	9.26	224,046	2.5
3	I5-S	Lakewood Blvd.	PM	124.78	8.21	57	8.77	198,449	2.8
4	I405-N	Palms Blvd	AM	52.312	28.54	54	6.21	191,937	2.3
5	I405-N	Inglewood Ave.	AM	42.122	18.35	55	6.15	170,141	3.3
6	I210-E	I-210 West of NB I-605 Conn.	PM	36.889	R36.6	52	6.73	163,630	3.0
7	US101-N	Lankershim Blvd.	PM	11.388	10.04	59	5.42	161,276	2.7
8	I110-N	21st Street	AM	20.93	21	53	5.44	158,713	2.7
9	SR170-S	Magnolia Blvd.	AM	2.346	R15.26	55	4.28	149,433	3.6
10	I210-E	San Gabriel River East of NB I-605 Conn.	PM	37.389	R37.1	41	8.45	136,783	2.1

Quarterly Mobility Statistics

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		2.1%	-1.7%
Total Vehicle Hours of Delay (VHD) at 35 mph		-1.8%	-9%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		-3.8%	-6.2%
Total Vehicle Hours of Delay (VHD) at 60 mph		0%	-8.8%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		-1.7%	-6.4%

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Friday -11.3%	Largest Magnitude Decrease over last quarter Friday -15.9%
		Largest Magnitude Increase over one year ago Sun/Hol 31.3%	Largest Magnitude Increase over last quarter Sun/Hol 9.7%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 5 PM -9.7%	Largest Magnitude Weekday Decrease over last quarter 10 AM -27.1%
		Largest Magnitude Weekday Increase over one year ago 10 AM 12.3%	Largest Magnitude Weekday Increase over last quarter 6 AM 26.3%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 5 PM -9.1%	Largest Magnitude Saturday Decrease over last quarter 3 PM -29.9%
		Largest Magnitude Saturday Increase over one year ago 11 AM 44.3%	Largest Magnitude Saturday Increase over last quarter 6 PM 17.7%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 6 AM -11.9%	Largest Magnitude Sun./Holiday Decrease over last quarter 1 PM -16.2%
		Largest Magnitude Sun./Holiday Increase over one year ago 5 PM 45.6%	Largest Magnitude Sun./Holiday Increase over last quarter 5 PM 53.9%

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
		Los Angeles -2.3%	Los Angeles -8.9%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Ventura 23.2%	–
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 -4.7%	Off-Peak Day -23.5%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Off-Peak Day 13.3%	–
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-12%	-5%
		Change in Bad over one year ago	Change in Bad over last quarter
		20%	6%

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2016 Q4-2015 Q4		Difference 2016 Q4-2016 Q3		Rank		
Route	County	2015 Q4	2016 Q3	2016 Q4	Absolute	Percentage	Absolute	Percentage	2015 Q4	2016 Q3	2016 Q4
I–405	Los Angeles	3,082,649	3,235,957	2,988,159	-94,490	-3.1%	-247,798	-7.7%	1	1	1
I–5	Los Angeles	1,685,486	2,253,068	1,847,157	161,670	9.6%	-405,912	-18.0%	3	2	2
US–101	Los Angeles	1,598,497	1,599,820	1,617,815	19,318	1.2%	17,995	1.1%	4	4	3
I–10	Los Angeles	2,087,114	1,991,865	1,594,164	-492,949	-23.6%	-397,701	-20.0%	2	3	4
I–210	Los Angeles	1,306,516	1,396,519	1,362,525	56,009	4.3%	-33,994	-2.4%	5	5	5
I–110	Los Angeles	1,294,886	1,250,185	1,127,653	-167,233	-12.9%	-122,532	-9.8%	6	6	6
I–605	Los Angeles	853,020	881,575	942,409	89,389	10.5%	60,834	6.9%	8	8	7
SR–60	Los Angeles	966,358	969,550	942,233	-24,125	-2.5%	-27,317	-2.8%	7	7	8
SR–91	Los Angeles	620,357	767,689	633,113	12,756	2.1%	-134,575	-17.5%	9	9	9
I–105	Los Angeles	539,477	659,149	517,517	-21,961	-4.1%	-141,632	-21.5%	10	10	10
SR–134	Los Angeles	321,128	419,026	422,360	101,233	31.5%	3,334	0.8%	12	11	11
I–710	Los Angeles	285,029	355,839	392,929	107,900	37.9%	37,090	10.4%	14	14	12
SR–170	Los Angeles	314,203	247,427	376,969	62,765	20.0%	129,542	52.4%	13	15	13
US–101	Ventura	260,366	370,926	303,641	43,275	16.6%	-67,286	-18.1%	15	13	14
SR–14	Los Angeles	144,098	228,517	198,057	53,959	37.4%	-30,461	-13.3%	16	16	15
SR–57	Los Angeles	380,351	407,340	191,592	-188,759	-49.6%	-215,748	-53.0%	11	12	16
SR–118	Los Angeles	101,645	99,768	121,391	19,745	19.4%	21,623	21.7%	18	17	17
SR–71	Los Angeles	144,003	86,462	73,291	-70,712	-49.1%	-13,171	-15.2%	17	18	18
SR–2	Los Angeles	55,595	63,780	62,541	6,946	12.5%	-1,239	-1.9%	19	19	19
SR–23	Ventura	44,021	44,837	60,369	16,348	37.1%	15,532	34.6%	20	20	20
SR–118	Ventura	3,161	22,885	15,007	11,847	374.8%	-7,877	-34.4%	22	21	21
SR–47	Los Angeles	4,162	1,731	5,343	1,181	28.4%	3,612	208.6%	21	22	22
SR–90	Los Angeles	992	738	1,111	119	12.0%	373	50.5%	23	23	23
TOTALS		**16,093,112**	**17,354,651**	**15,797,342**	**-295,770**	**-1.8%**	**-1,557,308**	**-9.0%**			

I–10 drop in delay is due to the HOV Project in both direction which rendered lot of the main line loops inoperable.
I–710 increase in delay is due to the disabled loops in Q3 are working in Q4.
SR–47 increase in delay is due to the disabled loops in Q3 are working in Q4.
SR–57 decrease in delay as of 2016-Q4 is due to the increase of disabled loops in this quarter than 2016-Q3.
SR-118 Ventura in 2016-Q4 compared to 2015-Q4, delays are effected due to the detectors health.