

# District 06 Mobility Performance Report

2016 First Quarter

**DEPARTMENT OF TRANSPORTATION**

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## District 06 Mobility Performance Report

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2016 First Quarter

### EXECUTIVE SUMMARY

#### Overview

Caltrans District 6 is geographically diverse district and the third largest of the 12 Districts statewide, stretching from the southernmost part of Yosemite National Park in the north to the Mojave Desert. It includes Madera, Fresno, Tulare, Kings and Kern counties. District 6 consists of 476 miles of freeway and 1,554 miles of rural and urban highway. The District has the largest portion of road miles to maintain in the state highway system with 2,030 miles.

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)
- 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 2016 first quarter, the total delay equaled 199 thousands VHD at the 35 mph speed threshold, and 865 thousands VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 2,685 VHD at 35 mph, and 11,603 VHD at 60 mph.

The VHD in this quarter increased by 14.8% compared to the previous quarter.

The increase VHD on I-5 and SR 168 in Fresno County is result of better detections after the completion of the projects to repair and replace bad or damaged detections due to copper theft.

The increased VHD on I-5 could be related to an ongoing construction of pavement replacement project on Interstate 5 in Kern County between postmile 62 and postmile 73. The project resulted a significant traffic delay in the vicinity.

The increased VHD on SR-99 could be related to an ongoing construction of Goshen freeway widening project on State Route 99 in Tulare County between postmile 41 to postmile 53. The project resulted a significant traffic delay in the vicinity

Additionally, there are new detection stations installed and just came on-line in the previous quarter. Two in Kings County, on State Route 198 and State Route 41. One in Madera County on State Route 152. One in Fresno County on State Route 168. They are fully functioning and collecting data full time in the first quarter of 2016.

## Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>1.0</td></tr> <tr><td>2015 Q4</td><td>1.2</td></tr> <tr><td>2016 Q1</td><td>1.2</td></tr> </table>	Year/Quarter	Value	2015 Q1	1.0	2015 Q4	1.2	2016 Q1	1.2	Over one year ago	Over last quarter
		Year/Quarter	Value								
2015 Q1	1.0										
2015 Q4	1.2										
2016 Q1	1.2										
		22% ↑	4.9% ↑								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>92.7</td></tr> <tr><td>2015 Q4</td><td>173.1</td></tr> <tr><td>2016 Q1</td><td>198.6</td></tr> </table>	Year/Quarter	Value	2015 Q1	92.7	2015 Q4	173.1	2016 Q1	198.6	Over one year ago	Over last quarter
		Year/Quarter	Value								
2015 Q1	92.7										
2015 Q4	173.1										
2016 Q1	198.6										
		114.2% ↑	14.8% ↑								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>1080</td></tr> <tr><td>2015 Q4</td><td>2045</td></tr> <tr><td>2016 Q1</td><td>2685</td></tr> </table>	Year/Quarter	Value	2015 Q1	1080	2015 Q4	2045	2016 Q1	2685	Over one year ago	Over last quarter
		Year/Quarter	Value								
2015 Q1	1080										
2015 Q4	2045										
2016 Q1	2685										
		148.7% ↑	31.3% ↑								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>435.8</td></tr> <tr><td>2015 Q4</td><td>642.6</td></tr> <tr><td>2016 Q1</td><td>865.2</td></tr> </table>	Year/Quarter	Value	2015 Q1	435.8	2015 Q4	642.6	2016 Q1	865.2	Over one year ago	Over last quarter
		Year/Quarter	Value								
2015 Q1	435.8										
2015 Q4	642.6										
2016 Q1	865.2										
		98.5% ↑	34.7% ↑								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>6</td></tr> <tr><td>2015 Q4</td><td>8</td></tr> <tr><td>2016 Q1</td><td>12</td></tr> </table>	Year/Quarter	Value	2015 Q1	6	2015 Q4	8	2016 Q1	12	Over one year ago	Over last quarter
		Year/Quarter	Value								
2015 Q1	6										
2015 Q4	8										
2016 Q1	12										
		99.6% ↑	42.6% ↑								

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
		Largest Magnitude Increase over one year ago <b>Friday</b> <b>147.7%</b> ↑	Largest Magnitude Increase over last quarter <b>Thursday</b> <b>59.8%</b> ↑
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
		Largest Magnitude Weekday Increase over one year ago <b>4 PM</b> <b>187.9%</b> ↑	Largest Magnitude Weekday Increase over last quarter <b>4 PM</b> <b>100.3%</b> ↑
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
		Largest Magnitude Saturday Increase over one year ago <b>8 PM</b> <b>122.1%</b> ↑	Largest Magnitude Saturday Increase over last quarter <b>10 AM</b> <b>94%</b> ↑
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
		Largest Magnitude Sun./Holiday Increase over one year ago <b>8 PM</b> <b>463.1%</b> ↑	Largest Magnitude Sun./Holiday Increase over last quarter <b>12 AM</b> <b>27.2%</b> ↑

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
		Madera -19.1%	Madera -54.6%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Fresno 236.7%	Kern 66.2%
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
		-	Off-Peak Night -39.6%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 163.8%	PM Peak 50.5%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		52%	35%
		Change in Bad over one year ago	Change in Bad over last quarter
		-38%	-33%

**Congestion by Route**

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2016 Q1-2015 Q1		Difference 2016 Q1-2015 Q4		Rank		
		2015 Q1	2015 Q4	2016 Q1	Absolute	Percentage	Absolute	Percentage	2015 Q1	2015 Q4	2016 Q1
SR99	Fresno	20,692	102,229	108,357	87,665	423.7%	6,129	6.0%	1	1	1
I5	Kern	19,319	11,001	24,221	4,902	25.4%	13,220	120.2%	2	3	2
SR41	Fresno	18,473	9,400	11,886	-6,587	-35.7%	2,486	26.4%	3	6	3
SR180	Fresno	2,348	9,502	11,470	9,122	388.5%	1,968	20.7%	7	5	4
SR99	Tulare	490	1,556	8,626	8,136	1659.4%	7,071	454.5%	8	10	5
SR99	Kern	18,266	10,916	7,538	-10,728	-58.7%	-3,378	-30.9%	4	4	6
SR46	Kern	1	0	7,239	7,238	556730.8%	7,239		12		7
SR99	Madera	9,356	16,520	7,056	-2,300	-24.6%	-9,464	-57.3%	5	2	8
I5	Fresno	72	2,742	6,676	6,604	9184.8%	3,934	143.5%	10	9	9
SR58	Kern	3,396	2,812	2,103	-1,293	-38.1%	-709	-25.2%	6	8	10
SR168S	Fresno	2	5,656	1,473	1,471	66850.0%	-4,183	-74.0%	11	7	11
SR198	Kings	0	473	658	658		184	38.9%		11	12
SR41	Kings	0	106	624	624		518	487.3%		13	13
SR152	Madera	0	140	492	492		352	251.3%		12	14
SR168	Fresno	0	11	146	146		135	1204.5%		15	15
SR198	Tulare	321	23	54	-268	-83.3%	31	133.9%	9	14	16
SR41	Madera	0	0	20	20		20				17
<b>TOTALS</b>		<b>92,737</b>	<b>173,086</b>	<b>198,638</b>	<b>105,901</b>	<b>114.2%</b>	<b>25,553</b>	<b>14.8%</b>			

**I-5 Kern:** Construction - Concrete panel replacement.

**SR99 Tulare:** Construction - Goshen Freeway Widening

**I-5 Fresno:** Detection was restored. It was down due to copper theft.

**SR168S Fresno:** Timing adjustment at Ramp Meter

**SR41 Kings:** New detection added in December 2015

**SR152 Madera:** New detection added in December 2015

**SR168 Fresno:** Detection was restored. It was down due to copper theft.

**SR198 Tulare:** New detection added in December 2015