

# District 07 Mobility Performance Report

2022 Fourth Quarter

**DEPARTMENT OF TRANSPORTATION  
OFFICE OF SYSTEM PERFORMANCE  
DIVISION OF OPERATIONS**

October 17, 2022  
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## District 07 Mobility Performance Report

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2022 Fourth Quarter

### EXECUTIVE SUMMARY

#### Overview

Caltrans District 7, consisting of Los Angeles and Ventura counties, is part of the second-largest urban region in the United States. Los Angeles County is the most populous county in the United States with more than 10.2 million residents as of 2020. Ventura County has a population of 0.84 million.

The Quarterly Mobility Performance Report (MPR) compares information with over a year ago and over previous quarter in the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD) and Bottleneck Locations
- Lost Lane Miles Hours (equivalent lost productivity)
- Detection Health

This information is based on daily data collected, 24 hours a day, by automated vehicle detector stations deployed along the State Highway System. The Mobility Performance Report presents congestion information at two speed thresholds: delay from vehicles traveling below 60 miles per hour (mph), and delay from vehicles traveling below 35 mph. The delay at the 35 mph speed threshold represents severe congestion while delay at 60 mph speed threshold represents both light and heavy congestions. These two speed thresholds are set by Caltrans based on engineering judgement.

## FINDINGS

- In this fourth quarter (October – December of 2022), VMT across all district 7 freeways was 9.04 billion miles, a decrease of 0.4 percent from previous quarter.
- On the contrary, delays increased in this quarter:
  - ❖ There was 23.9 million Vehicle Hours of Delay (VHD) at the 60-mph speed threshold, an increase of 2.3 percent over previous quarter and a decrease of 13.1 percent from a year ago.
  - ❖ Only 2.5 percent of the 23.9 million VHD were generated in Ventura County, and 97.5 percent were generated in Los Angeles County.
  - ❖ Similarly, a total of 9.1 million VHD occurred at the 35-mph speed threshold, an increase of 2 percent over the previous quarter and a decrease of 17.9 percent from a year ago.
  - ❖ About 48 percent (4.36 million VHD) in Los Angeles County were generated from 3 freeways only, I-405, I-5, and US-101.
- These delays were equivalent to 308 Lost Lane Miles Hours (LLM)<sup>\*</sup> from the freeway network during the PM Peak Period, compared to 269 LLM from previous quarter.
- The average weekday daily delay in this quarter was approximately 129,000 VHD at 35-mph speed threshold, and 324,000 VHD at 60-mph speed thresholds (4.3 percent and 3.7 Percent increase respectively over the previous quarter.)
- Thursdays were the most congested days of the week, followed by Fridays. Morning peak hour was at 8:00 AM. Afternoon peak hour was at 5:00 PM. The peak periods extended from 7:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM.
- Weekend's peak hour (Saturday and Sunday) was at 4:00 PM, and peak period extended between 2:00 PM and 5:00 PM.

\* **Lost Lane Miles Hours (Lost Productivity):** This is the number of lane-mile-hours that are lost due to the freeway operating under congested conditions. When the freeway is in congestion - speed is below 35 mph - PeMS find the ratio between the measured flow and the capacity for this location. This drop in capacity is due to the fact that the freeway is operating in congested conditions instead of in free flow)

- By the end of the fourth quarter, loop detectors in good service condition account for only 35.7 percent of the total loops, while 64.3 percent of total loop detectors are nonoperational. Almost 12 percent of the total loops were out due to construction projects.

County	# Det	% Good	% Bad	% Construction
Los Angeles	10625	34.9	65.1	11.2
Ventura	616	48.1	51.9	23.7
<b>Totals</b>	<b>11,241</b>	<b>35.7</b>	<b>64.3</b>	<b>11.9</b>

➤ Top Ten Bottlenecks for the 2022 Fourth Quarter:

Rank	County	Location	Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (hrs)
1	Los Angeles	Nordhoff St.	PM	I405-N	68.64	44.87	34.237367	-118.472933	49	10.64	213,860	171.5
2	Los Angeles	Howard Hughes Pkwy	PM	I405-S	48.67	24.9	33.976541	-118.387273	58	4.94	203,629	198.8
3	Los Angeles	Solano Ave.	PM	I110-N	25.01	25.08	34.075092	-118.232059	63	3.70	194,070	290.1
4	Los Angeles	Florence Ave.	PM	I605-S	11.22	R9.164	33.935212	-118.099885	53	6.40	172,899	210.9
5	Los Angeles	Garfield Ave.	PM	SR60-E	5.59	R5.42	34.033031	-118.133612	63	3.18	164,034	275.2
6	Los Angeles	Adams Blvd.	AM	I110-N	20.53	20.6	34.026085	-118.275163	63	4.20	157,070	226.9
7	Los Angeles	National Blvd.	AM	I405-N	52.93	29.16	34.026728	-118.429807	51	5.46	149,498	165.4
8	Los Angeles	Pasadena Ave.	PM	I5-N	136.63	20	34.076978	-118.219273	63	3.10	142,756	243.7
9	Los Angeles	Robertson Blvd.	AM	I10-W	5.66	R7.81	34.029948	-118.392928	63	3.90	139,330	226.9
10	Los Angeles	Greenwood Ave.	PM	I5-S	126.90	10.33	33.981723	-118.130845	41	5.11	138,971	158.0

**Project Status:**

The following projects are currently being constructed or are scheduled for construction in District 7. These projects are expected to relieve traffic congestion in Los Angeles and Ventura counties.

**LA 5: WIDEN AND REALIGN FREEWAY (SEGMENT 2); EA 2159U**

Widen Interstate 5 by adding one High Occupancy Vehicle (HOV) lane and one or two mixed-flow lanes in each direction, reconstruction of Valley View Avenue interchange, and adjacent frontage roads in Los Angeles County, in La Mirada and Santa Fe Springs, from Artesia Blvd to North Fork Coyote Creek.

**LA 5: WIDEN AND REALIGN FREEWAY, CONSTRUCT HOV LANES (SEGMENT 5); EA 2159S**

Widen Interstate 5 by adding one HOV lane, one or two mixed-flow lanes in each direction and upgrade the inside and outside shoulders to standard width; remove and replace Florence Avenue Overcrossing, northbound on-ramp bridge from Florence Avenue, and Orr and Day Overhead railroad bridge in Los Angeles County from north of Orr and Day Overhead to I-605/I-5 Interchange.

**LA 5: WIDEN & REALIGN FREEWAY FOR HOV LANES; REALIGN METROLINK RAILROAD TRACKS; EA 1218W**

Add one HOV lane in each direction in Burbank from West Magnolia Boulevard Overcrossing to 0.3 mile north of Buena Vista Street/Winona Avenue Undercrossing in Los Angeles County.

**LA 10: WIDEN FREEWAY, CONSTRUCT HOV LANES; EA 1193U (Segment 3)**

Construct one HOV lane in each direction along I-10 in LA County from Citrus Avenue in West Covina to SR-57 in Pomona.

**TRANSPORTATION MANAGEMENT SYSTEM PROJECTS TO UPGRADE THE EXISTING COMMUNICATION SYSTEMS.**

- LA 10: Repair Ramp Metering and Vehicle Detection System on various routes. EA 34050.
- LA 405: Upgrade existing Traffic Management Communication System from Ventura Blvd. Undercrossing to I-5/I-405 Separation. EA 25710.
- LA 60: Upgrade transportation management system. EA 32710

**ROADSIDE SAFETY IMPROVEMENT PROJECTS**

- LA 005: In Los Angeles County from rout 5/118 separation to Balboa Blvd. EA 31990.
- LA 005: In the city of Los Angeles, upgrade traffic signals and curb ramps. EA 35180
- LA 105: Install safety lighting At I-105/I-110 Interchange, EA 29740

This list of ongoing or planned projects is only a partial list, please contact CALTRANS District 7 for more details.

## Quarterly Mobility Statistics

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>2021</td><td>8.94</td></tr> <tr><td>2022</td><td>9.07</td></tr> <tr><td>2022</td><td>9.04</td></tr> </table>	Year	Q4	2021	8.94	2022	9.07	2022	9.04	Over one year ago	Over last quarter
		Year	Q4								
		2021	8.94								
2022	9.07										
2022	9.04										
1.1%	-0.4%										
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>2021</td><td>11.1</td></tr> <tr><td>2022</td><td>8.9</td></tr> <tr><td>2022</td><td>9.1</td></tr> </table>	Year	Q4	2021	11.1	2022	8.9	2022	9.1	Over one year ago	Over last quarter
		Year	Q4								
		2021	11.1								
2022	8.9										
2022	9.1										
-17.9%	2%										
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>2021</td><td>149</td></tr> <tr><td>2022</td><td>124</td></tr> <tr><td>2022</td><td>129</td></tr> </table>	Year	Q4	2021	149	2022	124	2022	129	Over one year ago	Over last quarter
		Year	Q4								
		2021	149								
2022	124										
2022	129										
-13.1%	4.3%										
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>2021</td><td>27.6</td></tr> <tr><td>2022</td><td>23.4</td></tr> <tr><td>2022</td><td>23.9</td></tr> </table>	Year	Q4	2021	27.6	2022	23.4	2022	23.9	Over one year ago	Over last quarter
		Year	Q4								
		2021	27.6								
2022	23.4										
2022	23.9										
-13.1%	2.3%										
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>2021</td><td>354</td></tr> <tr><td>2022</td><td>313</td></tr> <tr><td>2022</td><td>324</td></tr> </table>	Year	Q4	2021	354	2022	313	2022	324	Over one year ago	Over last quarter
		Year	Q4								
		2021	354								
2022	313										
2022	324										
-8.5%	3.7%										

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
		Saturday -30.5% ↓	Thursday -2.7% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Tuesday 15.4% ↑
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 -14.1% ↓	8 PM -72.7% ↓
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		9 AM 8.2% ↑	5 PM 14.3% ↑
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
		2 PM -40.5% ↓	2 PM -16.5% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		5 AM 142.2% ↑	6 PM 47.1% ↑
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
		4 PM -33.2% ↓	1 PM -6.5% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		8 AM 10.2% ↑	5 PM 67.8% ↑

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 -17.7% ↓	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Los Angeles 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 -13.4% ↓	Off-Peak Day -4.5% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		AM Peak 5.1% ↑	PM Peak 14.5% ↑
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-31% ↓	48% ↑
		Change in Bad over one year ago	Change in Bad over last quarter
		23% ↑	-12% ↓

**Congestion by Route**

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2022 Q4-2021 Q4		Difference 2022 Q4-2022 Q3		Rank		
		2021 Q4	2022 Q3	2022 Q4	Absolute	Percentage	Absolute	Percentage	2021 Q4	2022 Q3	2022 Q4
		I-405	Los Angeles	2,400,401	1,861,532	1,992,660	-407,741	-17.0%	131,128	7.0%	1
I-5	Los Angeles	1,636,057	1,300,743	1,362,366	-273,691	-16.7%	61,624	4.7%	2	2	2
US-101	Los Angeles	1,086,726	1,033,788	1,008,699	-78,027	-7.2%	-25,088	-2.4%	4	3	3
I-10	Los Angeles	1,263,190	889,892	915,810	-347,380	-27.5%	25,917	2.9%	3	4	4
I-210	Los Angeles	988,181	827,402	676,826	-311,355	-31.5%	-150,576	-18.2%	5	5	5
SR-60	Los Angeles	756,631	641,834	622,080	-134,550	-17.8%	-19,754	-3.1%	6	6	6
I-110	Los Angeles	512,401	531,049	552,174	39,774	7.8%	21,125	4.0%	8	7	7
I-605	Los Angeles	580,749	511,648	527,760	-52,989	-9.1%	16,112	3.1%	7	8	8
I-710	Los Angeles	449,176	448,807	423,656	-25,521	-5.7%	-25,151	-5.6%	10	9	9
SR-91	Los Angeles	503,421	279,002	316,479	-186,943	-37.1%	37,476	13.4%	9	10	10
SR-14	Los Angeles	90,896	115,019	189,781	98,885	108.8%	74,762	65.0%	15	12	11
I-105	Los Angeles	235,897	191,563	167,911	-67,986	-28.8%	-23,653	-12.3%	12	11	12
SR-134	Los Angeles	119,972	98,163	101,007	-18,965	-15.8%	2,844	2.9%	13	13	13
SR-118	Los Angeles	102,571	47,130	73,631	-28,940	-28.2%	26,502	56.2%	14	15	14
SR-170	Los Angeles	0	15,554	70,173	70,173		54,619	351.1%		18	15
US-101	Ventura	72,453	42,911	38,758	-33,694	-46.5%	-4,153	-9.7%	16	16	16
SR-57	Los Angeles	242,194	60,583	38,494	-203,701	-84.1%	-22,089	-36.5%	11	14	17
SR-2	Los Angeles	18,361	13,347	19,152	791	4.3%	5,805	43.5%	18	19	18
SR-118	Ventura	31,010	11,657	13,900	-17,110	-55.2%	2,242	19.2%	17	20	19
SR-33	Ventura	3,422	3,422	3,309	-113	-3.3%	-113	-3.3%	21	21	21
SR-71	Los Angeles	16,951	18,181	3,204	-13,747	-81.1%	-14,977	-82.4%	19	17	22
SR-47	Los Angeles	4,692	2,053	1,625	-3,067	-65.4%	-428	-20.8%	20	23	23
SR-90	Los Angeles	20	27	24	4	21.5%	-3	-10.9%	22	25	24
SR-126	Los Angeles	5	1,282	5	0	6.7%	-1,278	-99.6%	23	24	25
<b>TOTALS</b>		<b>11,115,376</b>	<b>8,949,042</b>	<b>9,124,366</b>	<b>-1,991,010</b>	<b>-17.9%</b>	<b>175,325</b>	<b>2.0%</b>			