District 10 Mobility Performance Report

2024 Third Quarter

DEPARTMENT OF TRANSPORTATION

October 15, 2024

: Serafin Herrera

District 10 Mobility Performance Report

2024 Third Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 10 contains eight counties located within the Central Valley (Merced / San Joaquin / Stanislaus) and the Sierra Nevada (Alpine / Amador / Calaveras / Mariposa / Tuolumne). Over the years detection in Alpine and Calaveras Counties has been sparse, so the District 10 Mobility Performance Report (MPR) was not including these two counties in the quarterly report. However, Alpine and Calaveras Counties were added back into the MPR beginning 2023 since detection has improved and been implemented more in rural areas.

The MPR quarterly analysis compares information in the current quarter to that of the previous quarter and the quarter one year prior. The following are the performance measures reported in the MPR:

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

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 third quarter of 2024, total delay equaled 906 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 2.6 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 27.5 percent total delay increase in 35 mph quarterly delay and 14.4 percent total delay increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 12,654 VHD at 35 mph and 35,604 VHD at 60 mph. Compared to the same quarter the year before, there was a 30.3 percent increase in 35 mph average weekday quarterly delay and 15.1 percent increase in 60 mph average weekday quarterly delay. The increases in delay numbers at 35 mph and at 60 mph can be attributed to the fact that good detection has increased. Additionally, significant commercial, industrial, and residential growth has occurred since 2023.

Top Ten Bottlenecks for Quarter 3

County	Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SJ	AM	I205-W	1.69	0.761	37.74	-121.54	62	3.32	145,994	15,090
SJ	PM	SR99-S	236.56	0.776	37.74	-121.12	59	2.40	31,148	8,760
SJ	PM	SR99-S	238.76	2.971	37.76	-121.15	53	2.55	30,617	6,830
SJ	PM	I205-E	12.87	R11.94	37.77	-121.34	54	1.80	22,987	8,390
STA	PM	SR99-S	227.83	R16.799	37.65	-121.02	60	1.84	20,424	9,200
SJ	AM	I5-N	477.61	32.122	38.01	-121.35	41	2.70	18,006	8,740
SJ	PM	I5-N	477.61	32.122	38.01	-121.35	47	2.70	15,736	9,835
SJ	PM	I5-N	468.70	R23.21	37.91	-121.29	51	2.43	13,302	4,590
SJ	PM	I5-S	470.73	25.241	37.93	-121.30	39	1.60	12,958	3,590
SJ	PM	I205-W	11.41	R10.48	37.77	-121.37	41	1.67	12,793	5,480

SUMMARY TABLE FOR THE 2024 Q3 REPORT

The following District 10 projects are currently being constructed or are scheduled for construction effective August 2024. These current and future (planned) projects will further relieve congestion in District 10:

MER 152 – LOS BANOS BYPASS SEGMENT I; EA 10-41911
Convert 4 lane expressway to 6 lane freeway
Approve Construction Contract Date – 05/15/2018
On Hold (No Updates) – 07/07/2023

STA 132 – SR 132 EXPRESSWAY PHASE 2; 10-40352
State Route 132 West Freeway/Expressway Phase 2. Phase 2 will add 2 lanes to the existing 2-lane, access controlled facility to create a four-lane expressway.

Currently in PS&E
Project Completion – Estimated to be late 2031

SAN JOAQUIN COUNTY

SJ 4 RAMP METERING IMPROVEMENTS; EA 10-1F180
Install ramp meters along SR 4 between the I-5 and SR 99 Connectors
Currently in RTL
Project Completion – Estimated to be 2028

SJ 120 RAMP METERING IMPROVEMENTS; EA 10-1F040
Install ramp meters along SR 4 between the I-5 and SR 99 Connectors
Currently waiting to be programmed
Project Completion – Estimated to be 2030

I-205 SMART CORRIDOR PHASE 2; EA 10-1C330
Install ramp meters and ITS elements along I205 from MacArthur to Grant Line Road
Currently RTL was Achieved in June 2021
Project Completion – Estimated to be 2027

I-205 – MOUNTAIN HOUSE PARKWAY INTERCHANGE PROJECT; EA 10-1E210
Improve the I-205 – Mountain House Parkway Interchange to accommodate planned future growth in and around the City of Tracy
Currently in PS&E
Project Completion – Estimated to be 2034

I-205 – LAMMERS ROAD / 11TH STREET INTERCHANGE PROJECT; EA 10-0H910
Construct the I-205 – Lammers Road / 11th Street Interchange to accommodate planned future growth in and around the City of Tracy
Currently in PS&E
Project Completion – Estimated to be 2032

I-205 – CHRISMAN ROAD INTERCHANGE PROJECT; EA 10-0H880
Construct the I-205 – Chrisman Road Interchange to accommodate planned future growth in and around the eastern commercial zone of the City of Tracy.
Currently in PA&ED
Project Completion – Estimated to be 2034

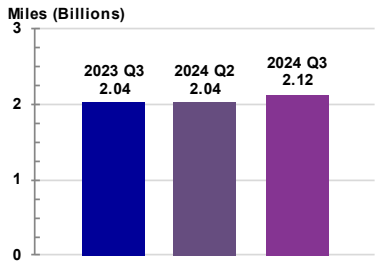
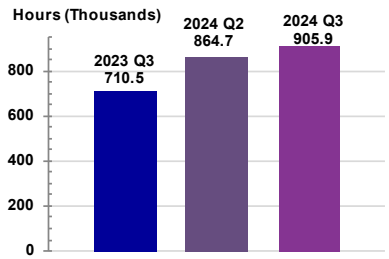
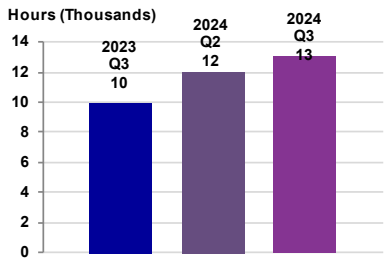
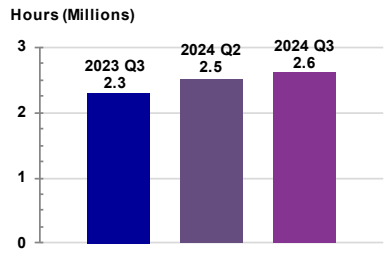
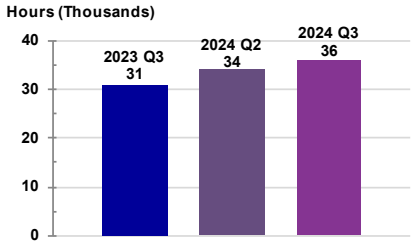
I-580 – PATTERSON PASS ROAD INTERCHANGE PROJECT; EA 10-1E220
Improve the I-205 – Patterson Pass Road Interchange to accommodate planned future growth in and around the City of Tracy
Currently in PS&E
Project Completion – Estimated to be 2029

The above capacity increasing, ramp metering, interchange improvement, and interchange construction projects are located on the routes, in the cities, and in the counties that experience the most congestion in District 10. It is expected that the projects will help reduce congestion and delay as the population and demand in District 10 grows over the next 10 years.

The next section of this report summarizes the District 10 2024 Q3 Quarterly Mobility Statistics.

2024 Q2 Quarterly Mobility Statistics
District 10

Data may change in coming months due to on-going reconciliation process

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		3.7%	4.1%
Total Vehicle Hours of Delay (VHD) at 35 mph		27.5%	4.8%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		30.3%	3.2%
Total Vehicle Hours of Delay (VHD) at 60 mph		14.4%	5.8%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		15.1%	3.8%

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2024 Q3 Quarterly Mobility Statistics
District 10
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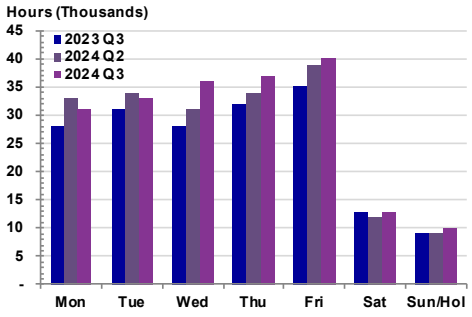
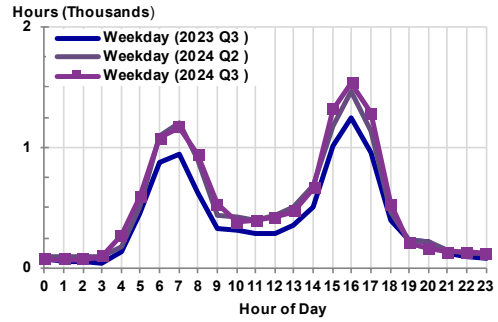
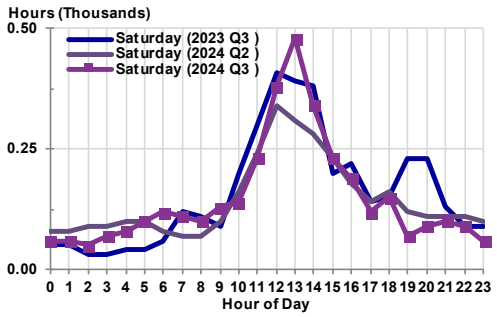
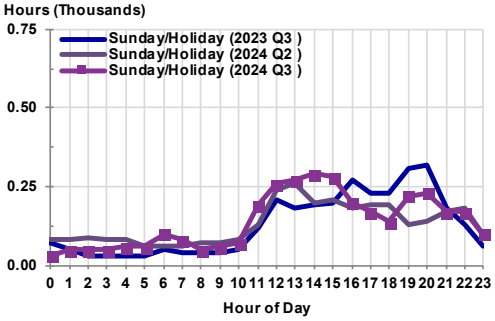
Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Saturday -1.5%	Largest Magnitude Decrease over last quarter Monday -5.4%
		Largest Magnitude Increase over one year ago Wednesday 29.2%	Largest Magnitude Increase over last quarter Wednesday 16.4%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 8 PM -26.9%	Largest Magnitude Weekday Decrease over last quarter 8 PM -27.1%
		Largest Magnitude Weekday Increase over one year ago 5 PM 33.1%	Largest Magnitude Weekday Increase over last quarter 5 PM 13%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 7 PM -68.7%	Largest Magnitude Saturday Decrease over last quarter 7 PM -38.8%
		Largest Magnitude Saturday Increase over one year ago 1 PM 23.7%	Largest Magnitude Saturday Increase over last quarter 1 PM 56.4%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 7 PM -30.4%	Largest Magnitude Sun./Holiday Decrease over last quarter 12 AM -61.9%
		Largest Magnitude Sun./Holiday Increase over one year ago 2 PM 49.9%	Largest Magnitude Sun./Holiday Increase over last quarter 2 PM 48.2%

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2024 Q3 Quarterly Mobility Statistics
District 10

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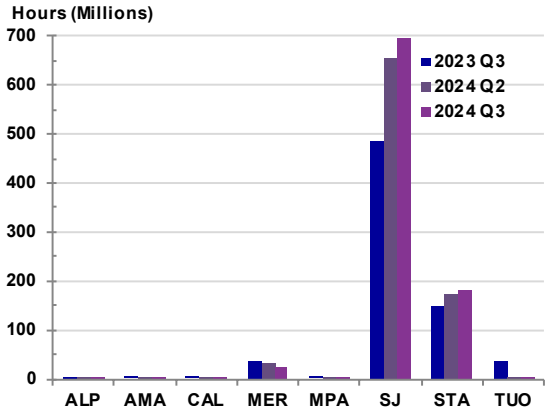
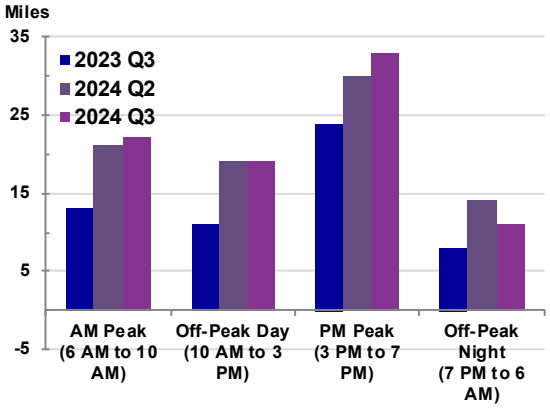
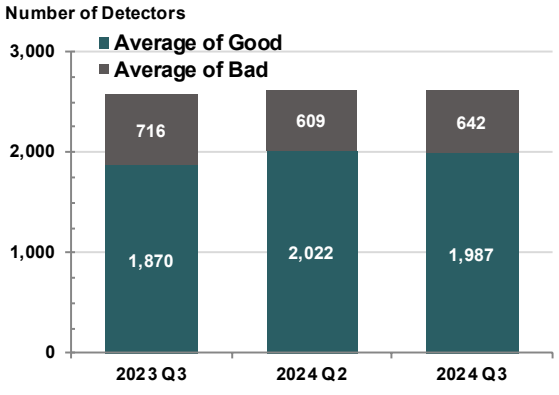
Measure	Graph	Percentage Change			
		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter	Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
Total Vehicle Hours of Delay (VHD) by County at 35 mph		TUO -92.2%	MER -31.3%	SJ 42.9%	SJ 6.2%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		–	Off-Peak Night -23.5%	AM Peak 69.8%	PM Peak 11.9%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter	Change in Bad over one year ago	Change in Bad over last quarter
		6%	-2%	-10%	5%

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2024 Q3 Quarterly Mobility Statistics
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Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2024 Q3-2023 Q3		Difference 2024 Q3-2024 Q2		Rank		
Route	County	2023 Q3	2024 Q2	2024 Q3	Absolute	Percentage	Absolute	Percentage	2023 Q3	2024 Q2	2024 Q3
I205	SJ	195,179	199,046	254,712	59,533	30.5%	55,666	28.0%	1	1	1
I5	SJ	91,682	182,834	179,530	87,848	95.8%	-3,304	-1.8%	4	2	2
SR99	SJ	121,342	129,452	136,874	15,532	12.8%	7,422	5.7%	2	4	3
SR99	STA	104,349	137,404	132,567	28,218	27.0%	-4,837	-3.5%	3	3	4
SR4	SJ	42,169	46,324	49,212	7,043	16.7%	2,888	6.2%	5	6	5
SR120	SJ	19,762	31,085	38,560	18,798	95.1%	7,475	24.0%	9	7	6
SR132	STA	26,026	23,157	28,395	2,369	9.1%	5,238	22.6%	7	9	7
I580	SJ	14,022	61,628	27,087	13,065	93.2%	-34,541	-56.0%	11	5	8
I5	STA	16,235	12,724	18,194	1,958	12.1%	5,470	43.0%	10	10	9
SR99	MER	23,386	23,609	14,394	-8,992	-38.5%	-9,215	-39.0%	8	8	10
SR12	SJ	4,943	6,808	9,406	4,463	90.3%	2,598	38.2%	14	12	11
SR132	SJ	3,600	3,344	4,822	1,223	34.0%	1,478	44.2%	15	13	12
SR165	MER	6,524	2,014	4,544	-1,980	-30.4%	2,529	125.6%	12	14	13
SR152	MER	6,499	8,101	4,518	-1,981	-30.5%	-3,583	-44.2%	13	11	14
SR49	MPA	227	349	4,448	4,221	1857.0%	4,099	1173.8%	21	20	15
SR49	TUO	47	51	1,582	1,535	3266.6%	1,532	3027.1%	24	23	17
SR120	TUO	561	438	798	237	42.3%	360	82.1%	19	18	18
SR16	AMA	649	392	778	129	19.8%	386	98.7%	18	19	19
SR108	TUO	36,463	1,196	529	-35,935	-98.5%	-667	-55.8%	6	16	20
SR124	AMA	1	2	108	107	21480.0%	106	4395.8%	29	29	21
SR88	ALP	107	20	105	-2	-1.8%	85	428.8%	22	25	22
SR4	STA	53	85	75	22	41.2%	-10	-11.7%	23	21	24
SR12	CAL	503	75	72	-431	-85.7%	-3	-4.4%	20	22	25
SR140	MPA	4	0	50	46	1145.0%	50		28		26
I5	MER	2,037	504	42	-1,996	-98.0%	-463	-91.8%	16	17	27
SR88	SJ	6	9	23	18	303.4%	15	169.0%	27	27	28
SR104	AMA	15	14	17	2	10.4%	3	18.9%	25	26	29
SR140	MER	0	1	1	1	266.7%	1	120.0%	30	30	30
SR4	CAL	0	0	0	0		0				
SR88	AMA	0	30	0	0	-100.0%	-30	-100.0%	31	24	
TOTALS		**718,337**	**872,451**	**913,178**	**194,842**	**27.1%**	**40,728**	**4.7%**			

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