District 10 Mobility Performance Report

2023 Third Quarter

DEPARTMENT OF TRANSPORTATION

October 27, 2023 : Eric Ladiao

District 10 Mobility Performance Report

2023 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 2023, total delay equaled 711 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 2.3 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 26.7 percent total delay increase in 35 mph quarterly delay and 11 percent total delay increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 9,710 VHD at 35 mph and 30,926 VHD at 60 mph. Compared to the same quarter the year before, there was a 22.5 percent increase in 35 mph average weekday quarterly delay and 10.4 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 and additional detection has been implemented in the past year. Additionally, significant commercial, industrial, and residential growth has occurred since early 2022 in the post-Covid era. It is anticipated that the 2023 delay numbers for 35 mph and 60 mph will stabilize going into the latter part of the year.

Top Ten Bottlenecks for Quarter 3										
Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)		
AM	I205-W	1.69	0.761	37.74	-121.54	60	2.88	116,522		
PM	SR99-S	236.56	0.776	37.74	-121.12	57	2.37	30,645		
PM	SR99-S	238.76	2.971	37.76	-121.15	50	2.45	23,889		
PM	SR99-S	227.11	R16.07	37.64	-121.01	59	1.75	19,188		
PM	15-S	470.73	25.241	37.93	-121.30	35	1.60	16,235		
PM	I205-E	12.87	R11.94	37.77	-121.34	44	1.80	12,718		
	Shift AM PM PM PM PM	Shift Fwy AM I205-W PM SR99-S PM SR99-S PM SR99-S PM SR99-S PM SR99-S PM SR99-S PM SR99-S	Shift Fwy Abs PM AM I205-W 1.69 PM SR99-S 236.56 PM SR99-S 238.76 PM SR99-S 227.11 PM I5-S 470.73	Shift Fwy Abs PM CA PM AM I205-W 1.69 0.761 PM SR99-S 236.56 0.776 PM SR99-S 238.76 2.971 PM SR99-S 227.11 R16.07 PM I5-S 470.73 25.241	Shift Fwy Abs PM CA PM Latitude AM I205-W 1.69 0.761 37.74 PM SR99-S 236.56 0.776 37.74 PM SR99-S 238.76 2.971 37.76 PM SR99-S 238.76 2.971 37.76 PM SR99-S 227.11 R16.07 37.64 PM I5-S 470.73 25.241 37.93	Shift Fwy Abs PM CA PM Latitude Longitude AM I205-W 1.69 0.761 37.74 -121.54 PM SR99-S 236.56 0.776 37.74 -121.12 PM SR99-S 238.76 2.971 37.76 -121.15 PM SR99-S 227.11 R16.07 37.64 -121.01 PM I5-S 470.73 25.241 37.93 -121.30	Shift Fwy Abs PM CA PM Latitude Longitude # Days Active AM I205-W 1.69 0.761 37.74 -121.54 60 PM SR99-S 236.56 0.776 37.74 -121.12 57 PM SR99-S 238.76 2.971 37.76 -121.15 50 PM SR99-S 227.11 R16.07 37.64 -121.01 59 PM I5-S 470.73 25.241 37.93 -121.30 35	Shift Fwy Abs PM CA PM Latitude Longitude # Days Active Avg Extent (Miles) AM 1205-W 1.69 0.761 37.74 -121.54 60 2.88 PM SR99-S 236.56 0.776 37.74 -121.12 57 2.37 PM SR99-S 238.76 2.971 37.76 -121.15 50 2.45 PM SR99-S 227.11 R16.07 37.64 -121.01 59 1.75 PM I5-S 470.73 25.241 37.93 -121.30 35 1.60		

461.20 R15.706

11.41 R10.48

9.13 R8.202

PМ

ΡM

PМ

PМ

SJ

SJ

SJ S.I 15-N

I205-W

I205-E

1205-W

13.13 R12.195 SUMMARY TABLE FOR THE 2023 Q3 REPORT

-121.30

-121.37

-121.41

-121.35

50

41

55

43

37.80

37.77

37.76

37.77

The following District 10 projects are currently being constructed or are scheduled for construction effective November 2023. These current and future (planned) projects will further relieve congestion in District 10:

MERCED COUNTY MER 99 NB LIVINGSTON MEDIAN WIDENING; EA 10-0Q121 Lane widening from 2 to 3 lanes Approve Construction Contract Date – 08/01/2021 Project Completion - Estimated to be January 2024

8.615

8,443

8,017

7.408

1.56

1.63

0.85

1.30

Total Duration

(mins) 13,170

8.565

6,680

7,705 3,930

5,005

4,930

4,105

5,445

4.470

MER 152 – LOS BANOS BYPASS SEGMENT I; EA 10-41911

Convert 4 lane expressway to 6 lane freeway Approve Construction Contract Date -05/15/2018On Hold (No Updates) -07/07/2023

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 mid 2024

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 2025

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 2028

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

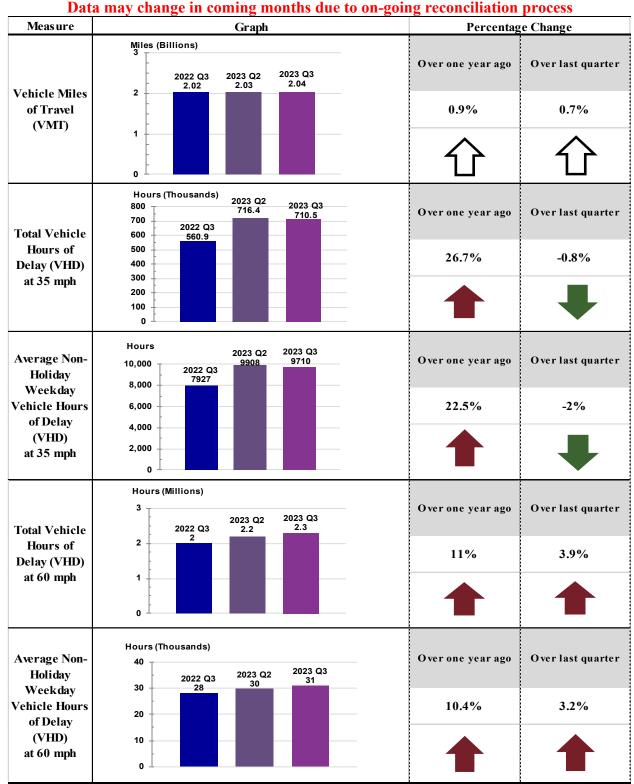
Project Completion – Estimated to be 2028

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 2028

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 2028 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.

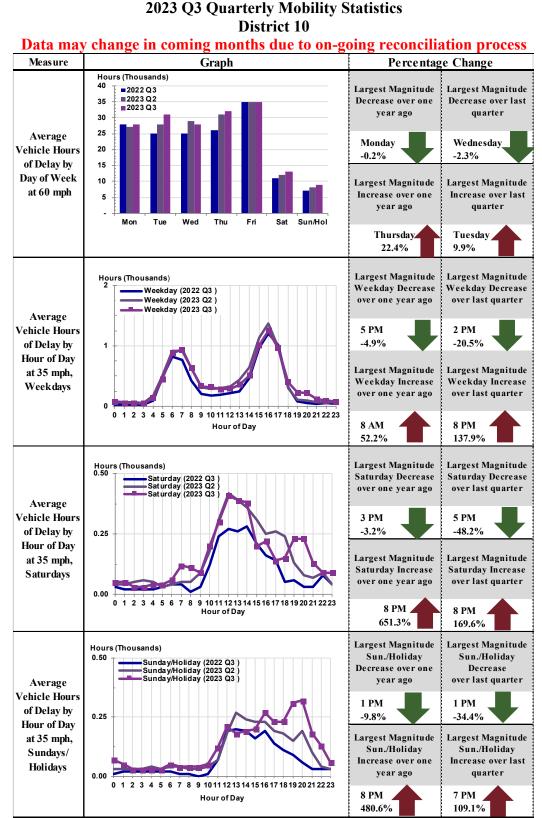
The next section of this report summarizes the District 10 2023 Q3 Quarterly Mobility Statistics.



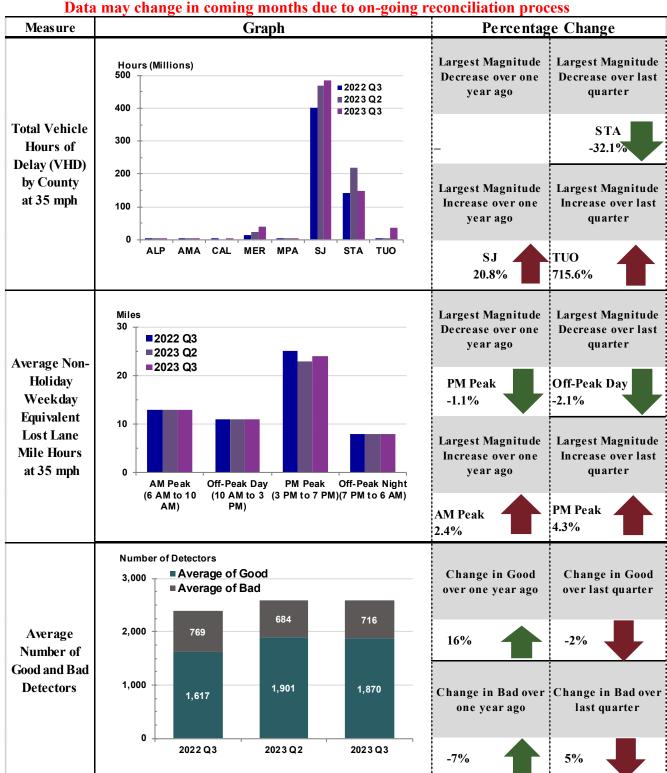
2023 Q3 Quarterly Mobility Statistics District 10

For further information regarding the content of this report, contact: Eric Ladiao at Eric.Ladiao@dot.ca.gov

District 10 Mobility Performance Report | 10/27/2023



For further information regarding the content of this report, contact: Eric Ladiao at Eric.Ladiao@dot.ca.gov



2023 Q3 Quarterly Mobility Statistics **District 10**

For further information regarding the content of this report, contact: Eric Ladiao at Eric.Ladiao@dot.ca.gov

District 10 Mobility Performance Report | 10/27/2023

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2023 Q3-2022 Q3		Difference 2023 Q3-2023 Q2		Rank		
Route	County	2022 Q3	2023 Q2	2023 Q3	Absolute	Percentage	Absolute	Percentage	2022 Q3	2023 Q2	2023 Q3
1205	SJ	176,581	216,376	195,179	18,598	10.5%	-21,197	-9.8%	1	1	1
SR99	SJ	103,793	78,560	121,342	17,549	16.9%	42,783	54.5%	2	4	2
SR99	STA	99,395	161,278	104,349	4,954	5.0%	-56,929	-35.3%	3	2	3
15	SJ	47,971	86,377	91,682	43,712	91.1%	5,306	6.1%	4	3	4
SR4	SJ	17,719	35,888	42,169	24,449	138.0%	6,281	17.5%	7	6	5
SR108	TUO	783	4,151	36,463	35,681	4559.3%	32,313	778.5%	17	15	6
SR132	STA	30,182	36,427	26,026	-4,156	-13.8%	-10,402	-28.6%	6	5	7
SR99	MER	8,029	11,772	23,386	15,357	191.3%	11,614	98.7%	10	10	8
SR120	SJ	34,185	19,757	19,762	-14,423	-42.2%	6	0.0%	5	8	9
ß	STA	11,999	17,900	16,235	4,236	35.3%	-1,664	-9.3%	8	9	10
I580	SJ	11,227	25,667	14,022	2,795	24.9%	-11,645	-45.4%	9	7	11
SR165	MER	3,773	4,352	6,524	2,751	72.9%	2,172	49.9%	13	14	12
SR152	MER	1,803	7,636	6,499	4,697	260.5%	-1,137	-14.9%	15	11	13
SR12	SJ	5,468	5,185	4,943	-525	-9.6%	-242	-4.7%	11	13	14
SR132	SJ	4,510	5,451	3,600	-911	-20.2%	-1,851	-34.0%	12	12	15
15	MER	1,013	705	2,037	1,024	101.1%	1,332	188.9%	16	17	16
SR16	AMA	116	36	649	533	461.0%	613	1688.2%	19	22	18
SR120	TUO	367	395	561	194	53.0%	166	42.1%	18	19	19
SR12	CAL	70	2	503	433	622.3%	501	22750.0%	20	28	20
SR49	MPA	44	520	227	183	413.1%	-293	-56.3%	21	18	21
SR88	ALP	21	29	107	86	405.2%	78	266.3%	22	23	22
SR4	STA	0	111	53	53		-57	-51.9%		20	23
SR49	TUO	1	0	47	46	6614.3%	47		28		24
SR104	AMA	2	14	15	14	805.9%	2	11.6%	25	25	25
SR88	SJ	5	6	6	1	26.1%	0	3.6%	24	26	27
SR140	MPA	0	2	4	4		3	166.7%		29	28
SR124	AMA	1	2	1	-1	-50.0%	-2	-78.3%	27	27	29
SR140	MER	1	57	0	-1	-76.9%	-57	-99.5%	26	21	30
SR88	AMA	0	1	0	0	-33.3%	0	-66.7%	29	30	31
SR4	CAL	0	0	0	0		0				
TO	TALS	560,944	721,661	718,337	157,393	28.1%	-3,324	-0.5%			

2023 Q3 Quarterly Mobility Statistics District 10

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

For further information regarding the content of this report, contact: Eric Ladiao at Eric.Ladiao@dot.ca.gov