

Project-Level Conformity Determination Documentation for
Interstate 5/Louise Avenue Interchange Improvement Project
San Joaquin County

October 2025

San Joaquin Council of Governments (SJCOG), on behalf of the City of Lathrop, is providing the final documentation for PM_{2.5} and PM₁₀ Hot-spot Conformity Assessment for Interstate 5/Louise Avenue Interchange Improvement Project (FTIP ID SJ07-2005) located in San Joaquin County.

The project consists of improving the existing compact diamond (Type L-1) interchange at I-5/Louise Avenue by constructing a diverging diamond interchange (DDI) to accommodate the traffic associated with growth planned in the City of Lathrop's General Plan by. Additionally, the project would include the following major project elements, widen the existing I-5 on- and off-ramps, reconstruct the undercrossing underneath the existing freeway bridge, construct I-5 ramp metering, construct two new auxiliary lanes (less than one mile in length), provide new traffic signals, construct Class II bicycle lanes along Louise Avenue and new sidewalks along Louise Avenue.

The draft conformity material was posted on SJCOG's website (<https://www.sjcog.org/281/Air-Quality>) and was available for the public comment period from September 24 through October 13, 2025. No comments were received during this public comment period. An interagency consultation (IAC) and public meeting was scheduled for October 15, 2025, at 1:00 – 2:00 pm (PT).

The NEPA document for this project is CE (23 USC 326), and Caltrans and EPA provided concurrence that the project is not of air quality concern (non-POAQC) on October 15, 2025.

The final documentation package consists of the (1) San Joaquin Valley PM hot-spot checklist, (2) slides presented at the IAC meeting, and (3) IAC meeting minutes.

San Joaquin Valley (SJV) Hot Spot Checklist for Interagency Consultation

The purpose of this form is to provide sufficient information to allow the IAC group to determine the evaluation if a project is exempt, non-exempt, and not POAQC, or non-exempt projects and POAQC (requires a quantitative project-level PM hot spot analysis).

It is the responsibility of the project sponsor to ensure that the form is filled out completely and provides a sufficient level of detail for the interagency consultation (IAC) to make an informed decision on whether or not a project requires further analysis. For example, the IAC group needs to consider the traffic impacts of the project, and thus part of the required information includes no build/build traffic data.

STEP 1: PROJECT IDENTIFICATION

A. Project Name and Number: Interstate 5/Louise Avenue Interchange Improvement Project

B. Federal Transportation

Improvement Program/CTIPS

#Identification No:

FTIP ID SJ07-2005/

CTIPS # 212-0000-0849

C. City/County: City of Lathrop / San Joaquin County

D. Project Description: The proposed project would improve the existing compact diamond (Type L-1) interchange at I-5/Louise Avenue by constructing a diverging diamond interchange (DDI) to accommodate the traffic associated with growth planned in the City of Lathrop's General Plan by. Additionally, the project would include the following major project elements, widen the existing I-5 on- and off-ramps, reconstruct the undercrossing underneath the existing freeway bridge, construct I-5 ramp metering, construct two new auxiliary lanes (less than one mile in length), provide new traffic signals, construct Class II bicycle lanes along Louise Avenue and new sidewalks along Louise Avenue

E. Type of Project:

- New state highway
- Change to existing state highway
- New regionally significant street
- Change to existing regionally significant street
- New interchange
- Reconfigure existing interchange
- Intersection channelization
- Intersection signalization
- Roadway realignment
- Bus, rail, or inter-modal facility/terminal/transfer point
- Truck weight/inspection station
- At or affects location identified in the SIP as a site of actual or possible violation of NAAQS
- Others, specify:

E. Hot-Spot Pollutant of Concern (*check both*): PM_{2.5} PM₁₀

F. Lead Agency: Caltrans

- a. Contact Person: Ken Romero
- b. Phone #: 559.593.5891
- c. Email: ken.j.romero@dot.ca.gov

G. Federal Action for which Project-Level PM Conformity is Needed

(check appropriate box)¹

<input checked="" type="checkbox"/>	Categorical Exclusion (NEPA)	<input type="checkbox"/>	EA or Draft EIS	<input type="checkbox"/>	FONSI or Final EIS	<input type="checkbox"/>	PS&E or Construction	<input type="checkbox"/>	Other
-------------------------------------	------------------------------	--------------------------	-----------------	--------------------------	--------------------	--------------------------	----------------------	--------------------------	-------

a. Include the scheduled date of Federal Action (if available):

H. NEPA Assignment – Project Type *(check appropriate box)*

<input type="checkbox"/>	Exempt	<input checked="" type="checkbox"/>	Section 326 –Categorical Exclusion	<input type="checkbox"/>	Section 327 – Non-Categorical Exclusion
--------------------------	--------	-------------------------------------	------------------------------------	--------------------------	---

I. Is this project in a conforming Plan and Transportation Improvement Program (TIP)?

Yes No

a. If yes, indicate the federal approval date for the latest regional conformity analysis: SJCOG adopted the Final 2025 FTIP on August 22, 2024. The 2025 FTIP Formal Amendment No. 16 was approved by SJCOG on June 26, 2025 and was approved by FHWA on July 18, 2025. The FTIP Formal Amendment No. 16 identified 5,858,640 dollars prior to the 2024/2025 fiscal year, an additional 2,700,000 dollars in the PE phase for the 2024/2025 Fiscal Year, 1,438,744 dollars in the ROW phase for the 2025/2026 fiscal year, and 38,250,000 dollars in the CON phase for the 2027/2028 fiscal year. The total funding amount for the project is 48, 247,384 dollars.

J. Current Programming Dates *(as appropriate)²*

	<i>PE/ Env</i>	ENG	ROW	CON
Start		Spring 2025	Spring 2026	April 2027
End		Spring 2026	January 2027	December 2028

K. Project Description (Summary, Use Additional Sheets as Needed):

Information should include, but is not limited to:

- a. Purpose and need of the project.
- b. Route name, route number, project length, and mile point locations
- c. Number of current and future lanes (clearly indicate if any lanes are “turn lane only”)
- d. Identify as “Capacity Adding” or “Non-Capacity Adding” project
- e. Identify intersecting roads that will be impacted.
- f. Project impact on surrounding land use/ traffic generators (discuss especially effect on diesel traffic)

The City of Lathrop, in cooperation with Caltrans, the San Joaquin Council of Governments, and the

¹ EA: Environmental Assessment; EIA: Environmental Impact Assessment; FONSI: Finding of No Significant Impact; PS&E: Planning, Specifications, and Estimate

² PE: Preliminary Engineering; ENG: Engineering; ROW: Right-of-way; CON: Construction.

Federal Highway Administration, proposes to improve local and regional circulation and reduce existing and future congestion by improving the Interstate 5 (I-5)/Louise Avenue Interchange. The interchange improvements are needed to enhance traffic operations and mobility, which will accommodate future traffic demands as a result of growth anticipated in the City of Lathrop's General Plan. The proposed project would improve the existing tight diamond (Type L-1) interchange at I-5/Louise Avenue to a diverging diamond interchange. Additionally, the project would include the following major project elements:

- widen the existing I-5 on- and off-ramps.
- reconstruct the undercrossing underneath the existing freeway bridge.
- construct I-5 ramp metering and provide new traffic signals.
- construct Class II bicycle lanes and new sidewalks along Louise Avenue.

The interchange identification information is listed below:

Dist.-County-Route-PM: 10-SJ-005-R16.47

Fed. Proj. No.: EA10-0E550

Bridge No.: 29-0054R

Latitude: 37° 48' 42"

Longitude: 121° 17' 44"

Existing Facility

The project area is in the City of Lathrop, 1.7 miles north of the I-5/State Route 120 interchange and 1.1 miles south of the I-5/Lathrop Road interchange. I-5 is a six-lane facility within these limits. To the east of the I-5/Louise Avenue northbound ramps, Louise Avenue is a four-lane facility as it continues to Harlan Road. To the west of the interchange, Louise Avenue becomes River Islands Parkway (see Figure 1: Regional Location). West of the I-5/Louise Avenue/River Islands Parkway southbound ramps, River Islands Parkway has been improved and widened to provide access to the Mosssdale Landing, River Islands, and Central Lathrop developments. Manthey Road is located approximately 200 feet west of the I-5/Louise Avenue/River Islands Parkway southbound ramp intersection. Manthey Road is a two-lane local frontage road that continues north until it dead-ends just south of Lathrop Road. Golden Valley Parkway is a major arterial that parallels I-5 and replaces Manthey Road within this area.

Louise Avenue generally runs in an east-west direction, perpendicular to I-5, which generally runs north-south. Figure 2: Project Limits, shows an aerial view of the limits of the project study area. The surrounding land uses are primarily commercial and residential.

Figure 1: Regional Location

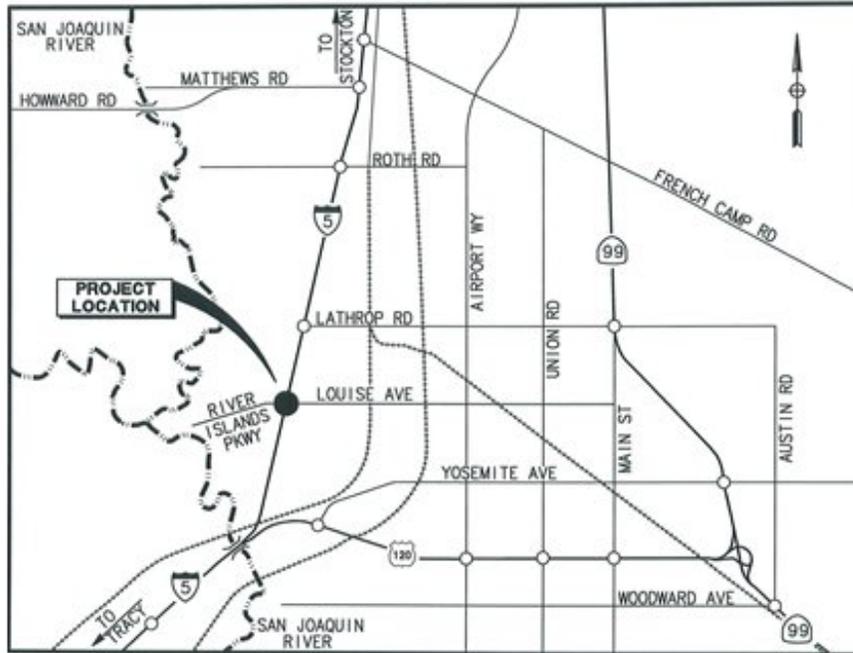
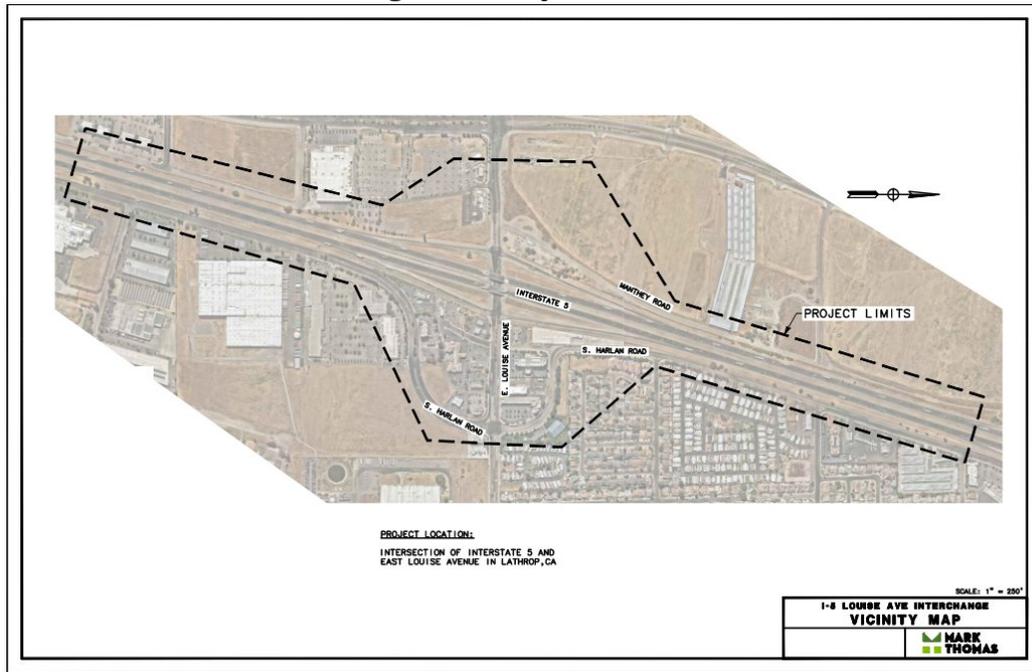


Figure 2: Project Limits



The I-5/Louise Avenue interchange is a Type L-1 tight diamond configuration, with single lane on- and off-ramps. Recent improvements have widened the ramp termini to provide additional capacity for turning movements.

The I-5/Louise Avenue interchange was originally constructed in 1971 (Bridge Numbers 29-0054L/R). Louise Avenue underpasses I-5 with bridge structures that are 142.5 feet (ft) long and 52 ft wide with six 12-foot travel lanes (three in each direction), 5-foot inside shoulders, and 10-foot outside shoulders. The single span bridges are built out of prestressed concrete box beams. According to the California Department of Transportation (Caltrans) California Road System Map, Louise Avenue is classified as an

Other Principal Arterial – Interstate (Urban) and is two lanes in each direction plus a center turn lane. Louise Avenue has an existing sidewalk along its southern side only that allows for pedestrian travel in the east and west directions.

Purpose

The purpose of the project is to reduce congestion, improve traffic operations and accommodate anticipated travel demand due to development anticipated in the City of Lathrop General Plan.

Specifically, the project purpose is to:

- Improve local east-west circulation in Lathrop between State Route (SR) 99 and I-5.
- Improve access and traffic operations on I-5.
- Improve traffic operations at the interchange.
- Provide sidewalk and pedestrian crossings along Louise Avenue to improve multi-modal safety.
- Implement ramp metering to improve I-5 mainline flow and travel time reliability.
- Provide bicycle lane connectivity along Louise Avenue.
- Improve travel time savings, throughput, and reliability of vehicle and freight movement within the City of Lathrop and along I-5.
- Provide improved Service Transportation Assistance Act route access within the City of Lathrop.

Need

The proposed project is necessary, as the City of Lathrop is projected to experience increased traffic demands at the I-5/Louise Avenue interchange. Significant economic growth is projected on the west and east sides of the I-5/Louise Avenue interchange; the improved interchange is needed to support traffic volumes anticipated at the interchange under future conditions to improve access to I-5, east-west mobility along Louise Avenue, and multi-modal safety. The Louise Avenue interchange is an important link to I-5 for the City of Lathrop, City of Manteca, and San Joaquin County. The projected growth in and around the City of Lathrop will put traffic demands on the existing interchange that cannot be met unless improvements are made.

Without any improvements, drivers will experience traffic delays and extensive queuing due to congestion, this in turn will bring about inefficient fuel consumption, deteriorating air quality, and unacceptable level of service conditions. The project is also needed to enhance safety and reliability for vehicle and truck traffic along I-5/Louise Avenue, enhance safety and accessibility for bicycle and pedestrian traffic along Louise Avenue, and to reduce emissions output through enhanced operations, which will reduce heavy truck idling by better interchange throughput.

Number of current and future lanes (clearly indicate if any lanes are “turn lane only”)

There are currently two through lanes and a dedicated left-turn lane in the westbound direction and two through lanes and one left-turn pocket lane in the eastbound direction. With the proposed project, from the Old Harlan Road intersection with Louise Avenue heading westbound, there would be one right turn lane to the northbound on-ramp and three through lanes in the westbound direction with one lane transitioning into a left turn lane towards the southbound on-ramp. From the River Islands Parkway/Golden Valley Parkway intersection in the eastbound direction, there would be three through lanes with one lane transitioning into a right-turn lane onto the southbound on-ramp and the remaining two through lanes heading eastbound, with one lane splitting to allow a free left onto the northbound on-ramp or to continue through the intersection. The northbound off-ramp begins as two lanes, one being a left turn lane and the other being a right turn lane which eventually both split to create four lanes, with two left turn lanes heading westbound and two right turn lanes heading eastbound. The southbound off-ramp begins as two lanes, one being a right turn lane and the other being a left turn lane which eventually splits to three lanes,

with the right turn lane heading westbound and the left lane splitting into two left turn lanes heading eastbound. The northbound on-ramp begins as one regular travel lane with an additional high-occupancy vehicle (HOV) lane and eventually ends as one lane onto I-5. The southbound on-ramp begins as two regular travel lanes with an additional HOV lane and eventually ends as two lanes onto I-5. Furthermore, the proposed project would install 0.43 mile of auxiliary lane between southbound Lathrop Road ramp entrance to the southbound Louise Avenue ramp exit on I-5 and 0.41 mile of auxiliary lane between the northbound Louise Avenue ramp entrance and the northbound Lathrop Road ramp exit on I-5.

Identify as “Capacity Adding” or “Non-Capacity Adding” project

Non-capacity adding.³⁴⁵ (exempt per 40 CFR 93.126)

Identify intersecting roads that will be impacted.

I-5 SB Ramps/Louise Avenue (Signal)

I-5 NB Ramps/Louise Avenue (Signal)

Harlan Road/Louise Avenue (Signal)

Golden Valley Parkway/River Islands Parkway (Signal)

River Islands Parkway/Louise Avenue/Manthey Road (SSSC)

Project impact on surrounding land use/ traffic generators (discuss especially effect on diesel traffic):

Based on the results of the Interim Year 2042 and Design Year 2045 Freeway Operations Analysis, the Diverging Diamond Interchange Alternative would not change freeway mainline, on-ramp merge, and off-ramp diverge segment operations compared to the No Project alternative. The project would not alter the diesel truck traffic.

Build Alternative – Diverging Diamond Interchange

The Build Alternative proposes to replace the existing Type L-1 tight diamond configuration with a DDI. The Build Alternative would include the following:

- Widen the existing northbound I-5 off-ramp from two 12-foot lanes to two 12-foot dedicated left-turn lanes and two 12-foot dedicated right-turn lanes.
- Widen the northbound I-5 on-ramp from one 12-foot lane to two 12-foot lanes. One general purpose lane and one high-occupancy vehicle (HOV) lane will be converted to one mixed flow lane at the entrance of I-5.
- Widen the westbound Louise Avenue approach to the northbound I-5 on-ramp to accommodate three 12-foot through lanes and a 12-foot right-turn pocket lane onto the I-5 on-ramp in the westbound direction.

³ As discussed in our meeting held on 8/26/25, the project has been deemed as non-capacity increasing per the Transportation Analysis under CEQA Second Edition (Caltrans, 2024) which states that the addition of an auxiliary lane of less than one mile in length design to improve roadway safety is not likely to lead to a measurable and substantial increase in vehicle travel. Additionally, the project would be exempt per 40 CFR 93.126 as the auxiliary lanes are less than 1 mile in length.

⁴ Transportation Analysis under CEQA Second Edition. Evaluating Transportation Impacts of State Highway System Projects. California Department of Transportation (Caltrans) Sacramento, California. September 2024. Link: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/ce-aq-conformity-a11y.pdf>, accessed 3/10/2025).

⁵ Categorical Exclusions under the National Environmental Policy Act and Transportation Conformity Requirements. Federal Highway Administration. Link: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/ce-aq-conformity-a11y.pdf>, accessed 3/10/2025).

- Widen Louise Avenue at the undercrossing within the existing prestressed concrete box beam freeway bridge structure. The widening will be done by using tie-back walls to accommodate five 12-foot lanes, including two 12-foot westbound through lanes and a dedicated 12-foot lane on to the southbound I-5 entrance ramp and two 12-foot eastbound through lanes and one 12-foot left-turn pocket lane onto the northbound I-5 entrance ramp.
- Widen the existing southbound I-5 off-ramp from one 12-foot lane to two 12-foot dedicated left-turn lanes and one 12-foot dedicated right-turn lane.
- Widen the southbound I-5 on-ramp from one 12-foot lane to two 12-foot general purpose lanes and one 12-foot HOV bypass lane.
- Widen westbound River Islands Parkway to tie into the future River Islands Parkway.
- Widen the eastbound River Islands Parkway approach to the southbound I-5 on-ramp to accommodate two 12-foot through lanes and one 12-foot dedicated right-turn lane.
- Construct northbound I-5 on-ramp metering.
- Construct southbound I-5 on-ramp metering.
- Construct tie-back retaining walls along Louise Avenue underneath the existing I-5 undercrossing.
- Construct a retaining wall along the southbound I-5 on-ramp.
- Construct a cul-de-sac that would eliminate access from Manthey Road onto Louise Avenue.
- Provide new two-phase traffic signals at the northbound and southbound I-5 ramp terminals.
- Construct Class II bicycle lanes along Louise Avenue.
- Construct new sidewalks along eastbound and westbound Louise Avenue.
- Construct 0.43 miles of auxiliary lane between southbound Lathrop Road ramp entrance to the southbound Louise Avenue ramp exist on I-5. (exempt per 40 CFR 93.126, see previous footnote on the prior page)
- Construct 0.41 miles of auxiliary lane between the northbound Louise Avenue ramp entrance and the northbound Lathrop Road ramp exit on I-5. (exempt per 40 CFR 93.126, see previous footnote on the prior page)

No Build Alternative

Under the No-Build Alternative, no improvements to the existing I-5/Louise Avenue Interchange would occur. This would result in continued queuing, traffic delays, safety concerns, and no multi-modal improvements at the I-5/Louise Avenue interchange.

Alternatives Considered but Eliminated from Further Discussion:

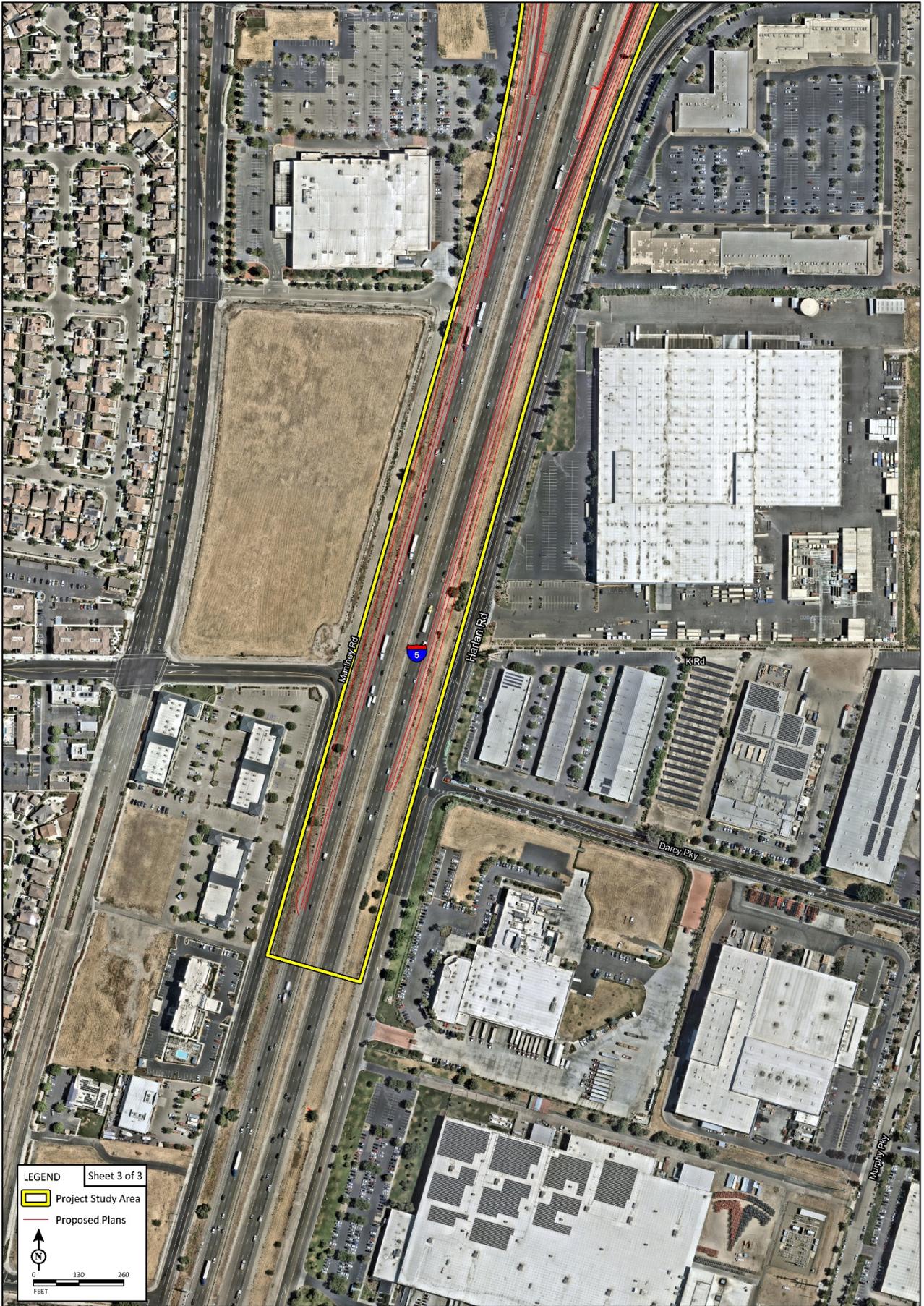
L-1/L-9 Partial Cloverleaf-tight Diamond Interchange

This interchange configuration would have maintained the tight-diamond interchange design on the east side of the I-5 and realigned on- and off-ramps to incorporate a loop on-ramp to southbound I-5 on the west side of I-5. This alternative was eliminated because it does not offer any additional operational benefits compared to the DDI alternative and would require significant right-of-way acquisition and

relocation of businesses on the west side of I-5. Please see **Figure 3: Diverging Diamond Interchange Design** presented in the following pages.

Figure 3: Diverging Diamond Interchange Design





STEP 2: EXEMPT PROJECTS

EXEMPT PROJECT

*No PM project-level conformity is required, and no further documentation is needed. **Go to STEP 6.***

Describe Type of Exempt Project:

R NOT AN EXEMPT PROJECT. Go to STEP 3.

STEP 3: TRAFFIC INFORMATION

Fill out only relevant traffic information B through G. For example, fill out D and E if the project is an intersection, and fill out F and G if the project is a bus, rail, or intermodal facility/terminal/transfer point. Include additional tables, maps, and other graphical representations of the projects in separate sheets.

A. Year(s) Selected for the Proposed Facility:

a. Year(s) selected

	Years Selected
Baseline Year	2020
Opening Year	2029
Interim Year	2042
Design Year(s)	2045

b. Justification for Selection of Analysis Year(s):

Due to the disruption to travel related to the COVID-19 pandemic, the baseline (existing conditions) for the Traffic Operations Analysis Report (TOAR) was assumed to reflect conditions as they were in Spring 2020 (pre-COVID 19). Using Spring 2020 as the baseline conditions will avoid introducing travel uncertainty caused by COVID-19 into future year forecasts and analysis and includes an eventual return to travel demand growth conditions that existed prior to COVID-19.

The use of Year 2020 traffic volumes was based on when the Traffic Operations Analysis Report was initiated by the City of Lathrop and Caltrans District 10. These AM and PM peak hour traffic volumes were only used to validate the base year travel demand forecasting (TDF) model and describe how the interchange was operating when the TOAR was begun.

The use of Year 2020 traffic volumes was based on when the Traffic Operations Analysis Report was initiated by the City of Lathrop and Caltrans District 10. These AM and PM peak hour traffic volumes were only used to validate the base year travel demand forecasting (TDF) model and describe how the interchange was operating when the TOAR was begun. As reported in the Interstate 5/Louise Avenue Interchange Project PA&ED: Model Validation memo dated September 20, 2021, the base year model volume for I-5 southbound south of Louise Avenue is 61,461. The memo also estimated the ADT volume at 61,600. The estimate used fall 2019 data for the AM & PM peak hour volumes and then converted to ADT volume using a factor. The memo shows that all model validation criteria for the study area are met.

Using the validated TDF Model, future year traffic volumes for Opening Year, Interim Year and Design Year Conditions were developed based on projected growth on the local (City of Lathrop) and regional (Interstate 5) transportation system. A review of count detector station data (Caltrans Performance Measurement System, www.pems.dot.ca.gov) shows that traffic volumes on I-5 have returned to previous traffic volume growth. The table below shows how Average Annual Daily Traffic (AADT) for southbound I-5 south of Louise Avenue dropped in 2020 and then grew such that the 2023 and 2024 volumes are higher than the 2019 volume.

Table 1

I-5 Southbound Average Annual Daily Traffic Volumes South of Louise Avenue

Year	AADT
2019	66,330
2020	57,540
2021	65,810
2022	65,900

2023	66,570
2024	67,820

Source: *Caltrans Performance Measurement System*

The City of Lathrop, Manteca, and Ripon Travel Demand Model (Three City Model) was used to develop freeway mainline, on-ramp, off-ramp, ramp terminal intersection, and local intersection volume forecasts for the TOAR. The Three City Model was developed based on the Three-County RTP/SCS Air Quality Conformity Model, but significantly improved all major components that comprise a travel demand model. The design year in the Three City Model is 2045.

Results of the Design Year 2045 traffic operations analysis indicates that, under Design Year 2045 Conditions, both the Diverging Diamond Interchange (DDI) Alternative and the Partial Cloverleaf-Tight Diamond (PC-TD) Alternative would operate deficiently at one or more study intersections; therefore, the Interim Year 2042 Conditions were analyzed to show that both With Project alternatives would operate acceptably in Interim Year 2042, and both With Project alternatives would result in a 13 year (2029 to 2042) design life compared to the overall goal of a 16 year (2029 to 2045) design life.

B. Traffic Information for No Build and Build Scenarios of the Proposed Facility

Table 2

I-5 Freeway Daily Demand Volume between SR 120 and Louise Avenue

Model Year	Daily				
	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks	
Baseline (2020)	122,380	31,820 (26%)	NA	NA	NA
Opening Year (2029)	135,900	35,330 (26%)	135,900	35,330 (26%)	0
Interim Year (2042)	143,080	37,200 (26%)	143,080	37,200 (26%)	0
Design Year (2045)	147,970	38,470 (26%)	147,970	38,470 (26%)	0

Note: Daily volumes estimated using a factor of 7.25 times the sum of the AM and PM peak hour volume as reported in *Interstate 5/Louise Avenue Interchange Project PA&ED: Model Validation* memo (September 20, 2021). The daily truck percentage comes from the Caltrans Census Program’s *Annual Average Daily Truck Traffic*, which provides a 1996 estimated daily count of 26% trucks on this section of I-5.

Table 3

I-5 Freeway Peak Hour Demand Volume between SR 120 and Louise Avenue

Model Year	AM Peak Hour					PM Peak Hour				
	Without Project		With Project		Project-Related Increase	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	7,960	1,195 (15%)	NA	NA	NA	8,920	1,055 (12%)	NA	NA	NA
Opening Year (2029)	8,910	1,337 (15%)	8,910	1,337 (15%)	0	9,840	1,181 (12%)	9,840	1,181 (12%)	0
Interim Year (2042)	9,525	1,435 (15%)	9,525	1,435 (15%)	0	10,210	1,231 (12%)	10,210	1,231 (12%)	0
Design Year (2045)	9,880	1,488 (15%)	9,880	1,488 (15%)	0	10,530	1,269 (12%)	10,530	1,269 (12%)	0

Note: Year 2029 volume estimated using linear interpolation of Year 2025 and Year 2042 volume.

Source: *I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report* (Fehr & Peers, 2022)

Table 4

I-5 Freeway Density and Level of Service between SR 120 and Louise Avenue

Model Year	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	NB	SB	NB	SB	NB	SB	NB	SB
Baseline (2020)	26.9/D	28.9/D	NA	NA	30.9/D	33.8/D	NA	NA
Opening Year (2029)	31.9/D	36.0/E	31.9/D	36.0/E	36.0/E	40.5/E	36.0/E	40.5/E
Interim Year (2042)	35.2/E	41.3/E	35.2/E	41.3/E	37.8/E	37.8/E	37.8/E	37.8/E
Design Year (2045)	37.8/E	37.8/E	37.8/E	37.8/E	37.8/E	44.3/E	37.8/E	44.3/E

Note: Year 2029 density estimated using linear interpolation of Year 2025 and Year 2042 density.

Source: *I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report* (Fehr & Peers, 2022)

NB = Northbound

SB = Southbound

Table 5

I-5 Freeway Daily Demand Volume between Louise Avenue and Lathrop Road

Model Year	Daily				Project-Related Increase
	Without Project		With Project		
	Total	Trucks	Total	Trucks	
Baseline (2020)	119,550	31,080 (26%)	NA	NA	NA
Opening Year (2029)	124,780	32,440 (26%)	124,780	32,440 (26%)	0
Interim Year (2042)	120,310	31,280 (26%)	120,310	31,280 (26%)	0
Design Year (2045)	122,820	31,930 (26%)	122,820	31,930 (26%)	0

Note: Daily volumes estimated using a factor of 7.25 times the sum of the AM and PM peak hour volume as reported in *Interstate 5/Louise Avenue Interchange – Final Traffic Operations Analysis Report* (Fehr & Peers, 2022). The daily truck percentage comes from the Caltrans Census Program’s *Annual Average Daily Truck Traffic*, which provides a 1996 estimated daily count of 26% trucks on this section of I-5.

Table 6

I-5 Freeway Peak Hour Demand Volume between Louise Avenue and Lathrop Road

Model Year	AM Peak Hour				Project-Related Increase	PM Peak Hour				Project-Related Increase
	Without Project		With Project			Without Project		With Project		
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	7,650	1,148 (15%)	NA	NA	NA	8,840	1,061 (12%)	NA	NA	NA
Opening Year (2029)	8,020	1,203 (15%)	8,020	1,203 (15%)	0	9,190	1,103 (12%)	9,190	1,103 (12%)	0
Interim Year (2042)	7,795	1,169 (15%)	7,795	1,169 (15%)	0	8,800	1,056 (12%)	8,800	1,056 (12%)	0
Design Year (2045)	7,960	1,194 (15%)	7,960	1,194 (15%)	0	8,980	1,078 (12%)	8,980	1,078 (12%)	0

Note: Opening Year 2029 volume estimated using linear interpolation of 2025 and 2042 volume.

Source: *I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report* (Fehr & Peers, 2022)

Table 7

I-5 Freeway Density and Level of Service between Louise Avenue and Lathrop Road

Model Year	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	NB	SB	NB	SB	NB	SB	NB	SB
Baseline (2020)	30.6/D	29.3/D	NA	NA	31.9/D	33.6/D	NA	NA
Opening Year (2029)	32.0/D	31.3/D	32.0/D	31.3/D	32.9/D	34.8/D	32.9/D	34.8/D
Interim Year (2042)	32.5/D	33.2/D	32.5/D	33.2/D	32.4/D	34.9/D	32.4/D	34.9/D
Design Year (2045)	32.1/D	33.9/D	32.1/D	33.9/D	32.1/D	33.7/D	32.1/D	33.7/D

Note: Opening Year 2029 density estimated using linear interpolation of 2025 and 2042 density.

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr & Peers, 2022)

NB = Northbound

SB = Southbound

Table 8

Louise Avenue/I-5 Southbound Ramps Demand Volume

Model Year	AM Peak Hour					PM Peak Hour				
	Without Project		With Project		Project-Related Increase	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	2,170	152 (7%)	NA	NA	NA	2,450	123 (5%)	NA	NA	NA
Opening Year (2029)	3,180	223 (7%)	3,180	223 (7%)	0	3,470	174 (5%)	3,470	174 (5%)	0
Interim Year (2042)	4,600	322 (7%)	4,600	322 (7%)	0	4,885	245 (5%)	4,885	245 (5%)	0
Design Year (2045)	4,930	346 (7%)	4,930	346 (7%)	0	5,210	261 (5%)	5,210	261 (5%)	0

Note: Year 2029 volume estimated using linear interpolation of Year 2025 and Year 2042 volume.

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr & Peers, 2022)

Table 9

Louise Avenue/I-5 Southbound Ramps Delay and Level of Service

Model Year	AM Peak Hour		PM Peak Hour	
	Without Project	With Project	Without Project	With Project
Baseline (2020)	31.1 / C	NA	30.5 / C	NA
Opening Year (2029)	53.0 / D	12.7 / B	69.2 / E	18.4 / B
Interim Year (2042)	125.5 / F	24.2 / C	134.9 / F	35.8 / D
Design Year (2045)	114.5 / F	27.6 / C	133.1 / F	47.4 / D

Note: Year 2029 delay estimated using linear interpolation of Year 2025 and Year 2042 delay.

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr & Peers, 2022)

Table 10

Louise Avenue/I-5 Northbound Ramps Demand Volume

Model Year	AM Peak Hour					PM Peak Hour				
	Without Project		With Project		Project-Related Increase	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	2,715	191 (7%)	NA	NA	NA	3,170	159 (5%)	NA	NA	NA
Opening Year (2029)	3,325	233 (7%)	3,325	233 (7%)	0	3,470	174 (5%)	3,470	174 (5%)	0
Interim Year (2042)	4,165	292 (7%)	4,165	292 (7%)	0	4,750	238 (5%)	4,750	238 (5%)	0
Design Year (2045)	4,360	306 (7%)	4,360	306 (7%)	0	4,960	248 (5%)	4,960	248 (5%)	0

Note: Year 2029 volume estimated using linear interpolation of Year 2025 and Year 2042 volume.

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr & Peers, 2022)

Table 11**Louise Avenue/I-5 Northbound Ramps Delay and Level of Service**

Model Year	AM Peak Hour		PM Peak Hour	
	Without Project	With Project	Without Project	With Project
Baseline (2020)	26.4 / C	NA	28.1 / C	NA
Opening Year (2029)	67.0 / E	17.7 / B	90.0 / F	18.4 / B
Interim Year (2042)	118.9 / F	30.8 / C	110.4 / F	36.2 / D
Design Year (2045)	120.2 / F	49.0 / D	108.4 / F	50.6 / D

Note: Year 2029 delay estimated using linear interpolation of Year 2025 and Year 2042 delay.

Source: *I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report* (Fehr & Peers, 2022)

C. Describe Traffic Impacts (*if appropriate*)

Open to Traffic Year – With and Without Project Comparison

Peak hour vehicle and peak hour truck volumes remain the same for both the no project and with project scenarios, including the Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045 (refer to Table above).

Summary

Implementation of the proposed project will not impact the peak hour vehicle and peak hour truck demand volumes, as the data indicates they would be the same for both the with and without project scenarios. Although there is an increase in traffic volumes in the year-to-year comparison, the amount is consistent with anticipated population and economic growth in the area and does not signal induced demand due to motorists coming to the area to take advantage of the improved intersection. As demonstrated in the Opening Year and Design Year scenarios, implementation of the DDI Build Alternative would result in a reduction in delay times and more optimal performance for LOS.

D. Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

No traffic redistribution effects are expected.

E. Is additional traffic information (tables, maps, and other graphical representations of the project (location, project details on additional lanes or ramps) presented in additional sheets at the end of the checklist?

Yes No **R**

STEP 4: POAQC DETERMINATION

NOT PROJECT OF AIR QUALITY CONCERN⁶. *Quantitative analysis is NOT required. IAC review, public participation, and concurrence are required. Provide the filled-out checklist to your MPO for the next steps⁷. Use the space to provide a detailed narrative and rationale for this conclusion.*

Project does not meet the criteria for a POAQC as defined in the final rule by 40 CFR 93.123(b)(1). The project is listed as one of the non-exempt project examples that are not a local air quality concern under 40 CFR 93.123(b)(1)(i) and (ii) stated as “interchange configuration project that involves either turn lanes or slots, or lanes or movements that are physically separated” is not a project of air quality concern. These kinds of projects improve operations by smoothing traffic flow and vehicle speeds by improving weave and merge operations, which would not be expected to create or worsen PM_{2.5} or PM₁₀ violations. In addition, the guidance indicates that “interchange reconfiguration projects that are designed to improve traffic flow and vehicle speeds, and do not involve any increases in idling” are also not considered projects of air quality concern.

Additionally, the proposed project is not considered to be a POAQC because of the following reasons:

- The with and without traffic volumes and truck volumes for the project are the same for the Baseline, Open to Traffic, Interim, and Design Years. Traffic/truck volumes are not anticipated to increase significantly over the life of the project.
- Replacing the existing tight-diamond interchange with a diverging diamond interchange will calm traffic, lessen delay times and directly reduce the amount of harmful emissions due to less car and truck idling.
- The project would improve (reduce) vehicle delay times.
- The project would improve local east-west circulation in Lathrop between State Route 99 and Interstate 5.

Go to STEP 6.

PROJECT OF AIR QUALITY CONCERN. *Check the following options to see if your project is one of the following options. If yes, the project could be of local air quality concern and requires quantitative hot-spot analysis based on interagency review.*

Examples of POAQC that are covered by 40 CFR 93.123(b)(1)(i) and (ii)

- *New or expanded highway projects with a significant number of, or increase in, diesel vehicles (e.g., 125,000 AADT and 10,000 (8%) diesel truck traffic) Note: These metrics are examples and should not be considered as threshold levels.*
- *Project affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.*
- *New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location.*
- *Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location.*
- *Projects in or affecting locations, areas, or categories of sites that are identified in*

⁶ Refer to EPA’s 2021 guidance, EPA-420-B-21-037, and FHWA’s FAQ document, for complete details.

⁷ Listed in Pg. 1 under “Instructions”

the PM10 and PM2.5 applicable implementation plan or implementation plan submissions, as appropriate, as sites of violation or possible violation.

Examples of POAQC that are covered by 40 CFR 93.123(b)(1)(iii) and (iv)

- A major new bus or intermodal terminal that is considered to be a “regionally significant project” under 40 CFR 93.101.*
- An existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses increases by 50% or more, as measured by bus arrivals.*

STEP 5: ANALYSIS AND DOCUMENTATION (for POAQC)

The following is a summary of documentation to be included for a quantitative PM hot-spot analysis. Please refer to the EPA Quantitative Hot-Spot Guidance for more information.⁸ IAC review and concurrence are required on the modeling protocol before the modeling begins. Contact your MPO representative and Air Quality Coordinator for additional guidance.

Documentation to Be Included for the Quantitative PM Hot-spot Analysis:

- Description of project
- Description of type of emissions considered in the analysis.
- Contributing Factors
 - Air Quality
 - Transportation and traffic conditions
 - Built and natural environment
 - Meteorology, climate and seasonal data
 - Adopted emissions control measures
- Consider the full-time frame of the area's LRTP
- Description of existing conditions
- Description of changes resulting from the project
- Description of models, methods, and assumptions
- Description of analysis years
- Types of emissions included in the analysis and the details of emissions modeling.
- Results of air dispersion modeling.
- Background concentration estimation methods and results.
- Design value calculation.
- Discussion of why the project will not cause a violation of either the annual or 24-hour standard.
- Discussion of any mitigation measures
- Conclusion on how the project meets conformity requirements.
- Documentation of any IAC decisions on the latest planning assumptions used in the analysis.
- Documentation of any public comment on the latest planning assumptions used in the analysis.

⁸ See EPA Quantitative PM Hotspot Analysis Guidance, EPA-420-B-21-037, October 2021; Accessed at <https://www.epa.gov/state-and-local-transportation/project-level-conformity-and-hot-spot-analyses>

STEP 6: PUBLIC AND IAC INVOLVEMENT

Fill out this section after the checklist is sent to the MPO and the project is presented at the SJV Project Level Conformity Group Meeting.

- A. SJV Project Level Conformity Group Meeting Date: October 15, 2025
- B. Summary of IAC comments received and responses

IAC Meeting of August 14, 2024:

1. What was the justification for 2020 as the current year for traffic data and how different (or similar) are the traffic estimates from more recent years?

Due to the disruption to travel related to the COVID-19 pandemic, the baseline (existing conditions) for the Traffic Operations Analysis Report (TOAR) was assumed to reflect conditions as they were in Spring 2020 (pre-COVID 19). Using Spring 2020 as the baseline conditions will avoid introducing travel uncertainty caused by COVID-19 into future year forecasts and analysis and includes an eventual return to travel demand growth conditions that existed prior to COVID-19. The use of Year 2020 traffic volumes was based on when the Traffic Operations Analysis Report (TOAR) was initiated by the City of Lathrop and Caltrans District 10. These AM and PM peak hour traffic volumes were only used to validate the base year travel demand forecasting (TDF) model and describe how the interchange was operating when the TOAR was begun. As reported in the Interstate 5/Louise Avenue Interchange Project PA&ED: Model Validation memo dated September 20, 2021, the base year model volume for I-5 southbound south of Louise Avenue is 61,461. The memo also estimated the ADT volume at 61,600. The estimate used fall 2019 data for the AM & PM peak hour volumes and then converted to ADT volume using a factor. The memo shows that all model validation criteria are met. Using the validated TDF Model, future year traffic volumes for Opening Year, Interim Year and Design Year Conditions were developed based on projected growth on the local (City of Lathrop) and regional (Interstate 5) transportation system. See Table 1: Project Analysis Data for the AADT.

2. What was the justification for 2020 as the current year for traffic data and how different (or similar) are the traffic estimates from more recent years?

The proposed auxiliary lane improvements are as follows:

- Construct 0.43 mile of auxiliary lane between southbound Lathrop Road ramp entrance to the southbound Louise Avenue ramp exit on I-5. (exempt per 40 CFR 93.126)
- Construct 0.41 mile of auxiliary lane between the northbound Louise Avenue ramp entrance and the northbound Lathrop Road ramp exit on I-5. (exempt per 40 CFR 93.126)

According to [Transportation Analysis under CEQA Second Edition](#) (Caltrans, 2024), the addition of an auxiliary lane of less than one mile in length design to improve roadway safety is not likely to lead to a measurable and substantial increase in vehicle travel. The proposed auxiliary lanes between Louise Avenue and Lathrop Road will each be less than 0.5 miles.

3. We received a comment to provide more clarification of the traffic truck data including truck demand volume percentages, Level of Service (LOS), and delay times.

We have incorporated new slides that clarify the traffic truck data, including truck demand volume percentages, LOS, delay times. The slides would demonstrate that implementation of the proposed project will not impact the peak-hour vehicle and peak-hour truck demand volumes, as the data indicates they would be the same for both the with and without project scenarios. Although there is an increase in traffic volumes in the year-to-year comparison, the amount is consistent with anticipated population and economic growth in the area and does not signal induced demand due to motorists coming to the area to take advantage of the improved intersection. As demonstrated in the Opening Year and Design Year scenarios, implementation of the DDI Build Alternative would result in a reduction in delay times and more optimal performance for LOS.

IAC Meeting of October 15, 2025:

EPA asked for clarification on whether the project involves converting the existing diamond interchange above Louise Avenue into a converging diamond interchange (DDI). EPA also requested confirmation that the project does not include any capacity increase — noting that while auxiliary lanes are proposed between Louise Avenue and Lathrop, no new through lanes appear to be added.

The project converts the existing interchange into a converging diamond interchange. The additional lanes are limited to turning and auxiliary movements and will not increase through capacity.

Caltrans D6 Comment: Caltrans inquired whether the new DDI will go over or under the freeway and confirmed that the project appears to maintain the existing structure. Caltrans also requested clarification on whether the project will affect traffic flow or level of service (LOS) on I-5.

The DDI will remain under I-5, consistent with the existing configuration. The project does not change the number of through lanes on I-5. While auxiliary and acceleration lanes will be added to improve local weaving and merging operations, the overall mainline LOS is expected to remain similar under both build and no-build conditions, with minor localized improvements in certain segments.

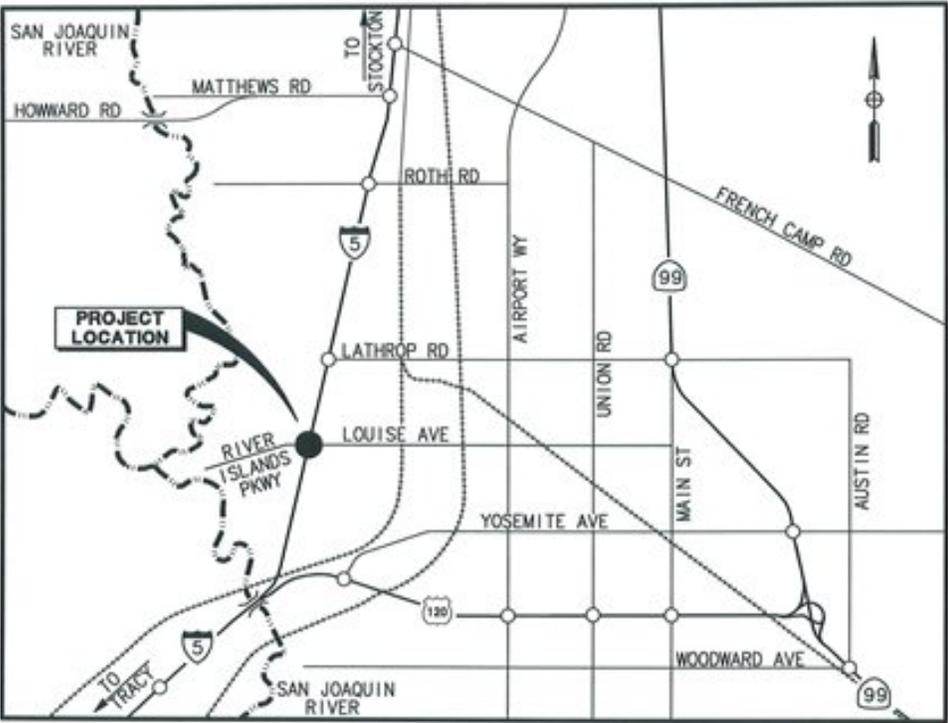
C. Summary of public comments received and responses: None

D. IAC Concurrence Date(s): October 15, 2025

Additional Information on Traffic Data

Attach traffic data tables, maps, and other graphical representations of the project to supplement information in Step 3.

Interstate 5/Louise Avenue Interchange



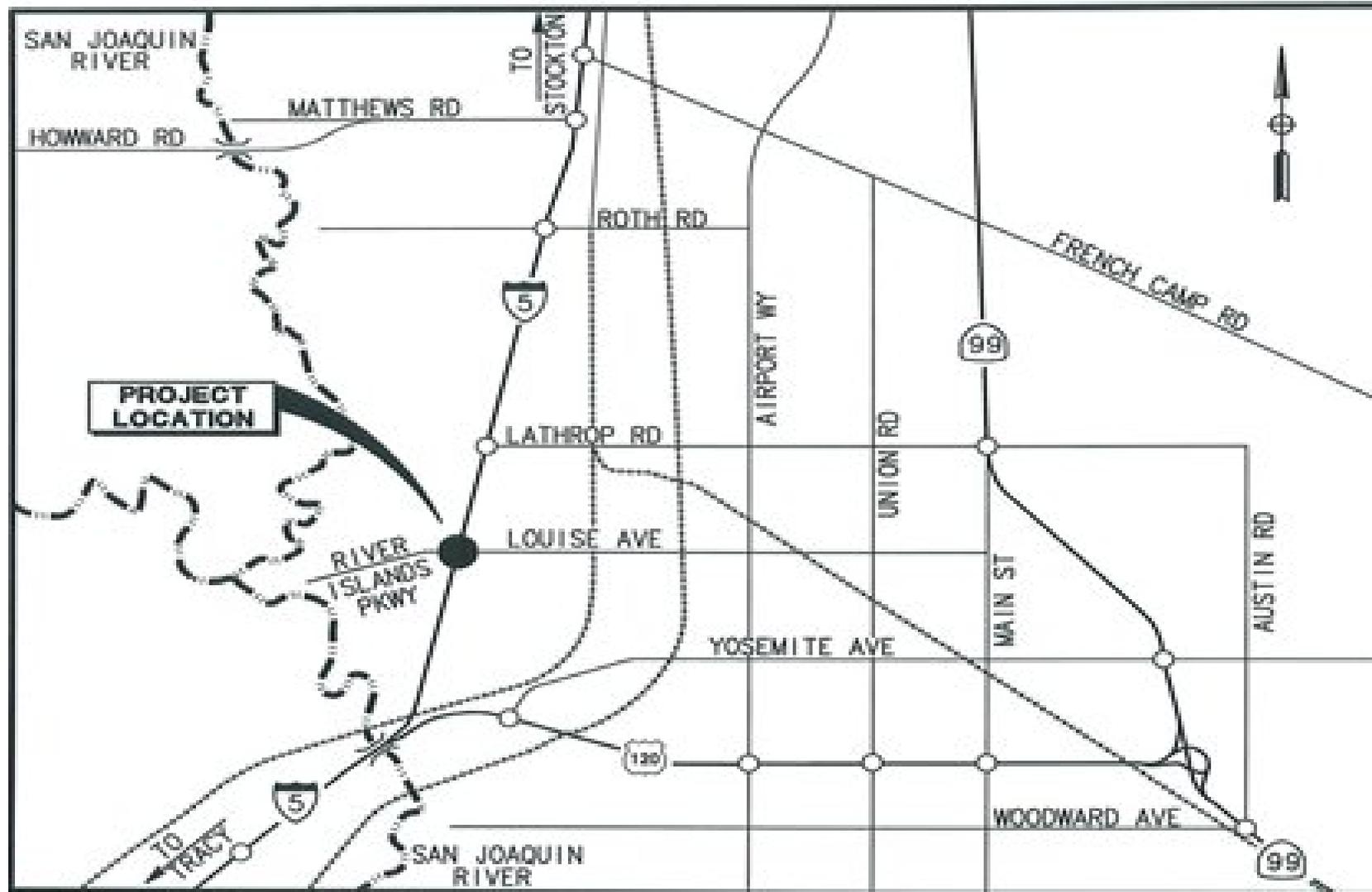
San Joaquin Valley Project Level Conformity Group Presentation

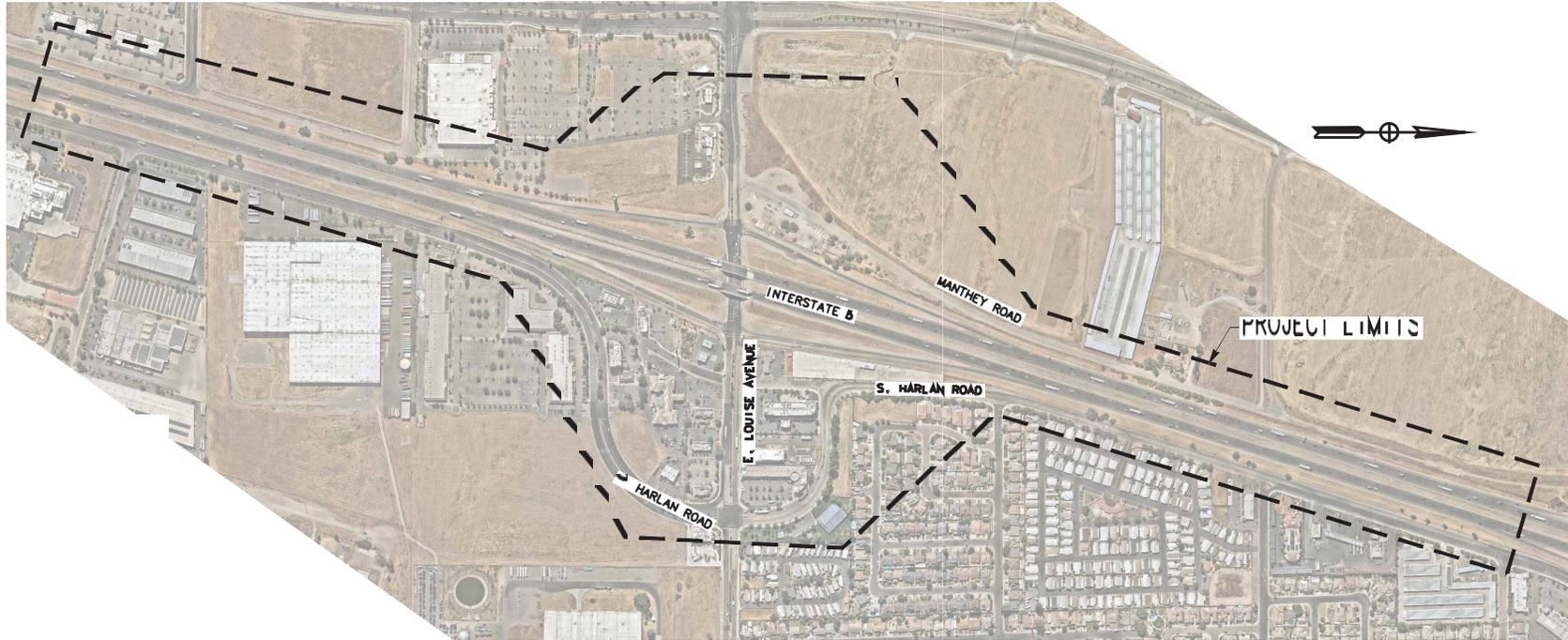
October 15, 2025

CITY OF LATHROP, SAN JOAQUIN COUNTY, CALIFORNIA



Project Location and Vicinity





PROJECT LOCATION

INTERSECTION OF INTERSTATE 5 AND
EAST LOUISE AVENUE IN LATHROP, CA

SCALE: 1" = 250'

**1st LOUISE AVE INTERCHANGE
VICINITY MAP**



Project Overview

- The Interstate 5/Louise Avenue Interchange Improvement Project proposes to improve local and regional circulation and reduce existing and future congestion by replacing the I-5/Louise Avenue existing compact diamond interchange with a Diverging Diamond Interchange (DDI). The project is located in the City of Lathrop, approximately 1.7 miles north of the Interstate 5 and State Route 120 interchange and 1.1 miles south of the I-5/Lathrop Road interchange.
- The City of Lathrop, in cooperation with California Department of Transportation (Caltrans), the San Joaquin Council of Government (SJCOG), and the Federal Highway Administration (FHWA) proposes to improve local and regional circulation and reduce existing and future congestion by improving the Interstate 5 (I-5)/Louise Avenue Interchange (project). The interchange improvements are needed to enhance traffic operations and mobility, which will accommodate future traffic demands as a result of the growth planned for in the City of Lathrop's General Plan.

Project Build Alternative

The Build Alternative would construct a diverging diamond interchange (DDI) at the I-5/Louise Avenue Interchange. The DDI would use traffic signals at the Louise Avenue undercrossing to direct traffic lanes crossing the freeway to the left side of the roadway so that no turns crossing traffic are necessary to enter or exit I-5. This design allows a compact diamond configuration that reduces the footprint of the interchange.

The Build Alternative elements are listed below:

- Widen the existing northbound I-5 off-ramp from existing two 12 ft lanes to two 12 ft dedicated left-turn lanes and two 12 ft dedicated right-turn lanes.
- Widen the northbound I-5 on-ramp from one existing 12-foot lane to two 12-foot lanes. One general-purpose (GP) lane and one high-occupancy vehicle (HOV) that will taper at the ramp terminal to one mixed flow lane at the entrance of I-5.
- Widen westbound Louise Avenue approach to the northbound I-5 on-ramp to accommodate three 12 ft through lanes and a 12 ft right-turn pocket lane onto the I-5 on-ramp in the westbound direction.
- Widen Louise Avenue at the undercrossing within the existing prestressed concrete box beam freeway bridge structure. The existing bridge structure rests on concrete piles. The widening will be done by using tie-back walls to accommodate five 12 ft lanes, including two 12 ft westbound through lanes and a dedicated 12 ft lane on to the southbound I-5 entrance ramp and two 12 ft eastbound through lanes and one 12 ft left-turn pocket lane onto the northbound I-5 entrance ramp.

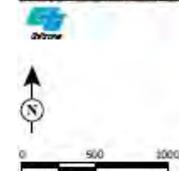
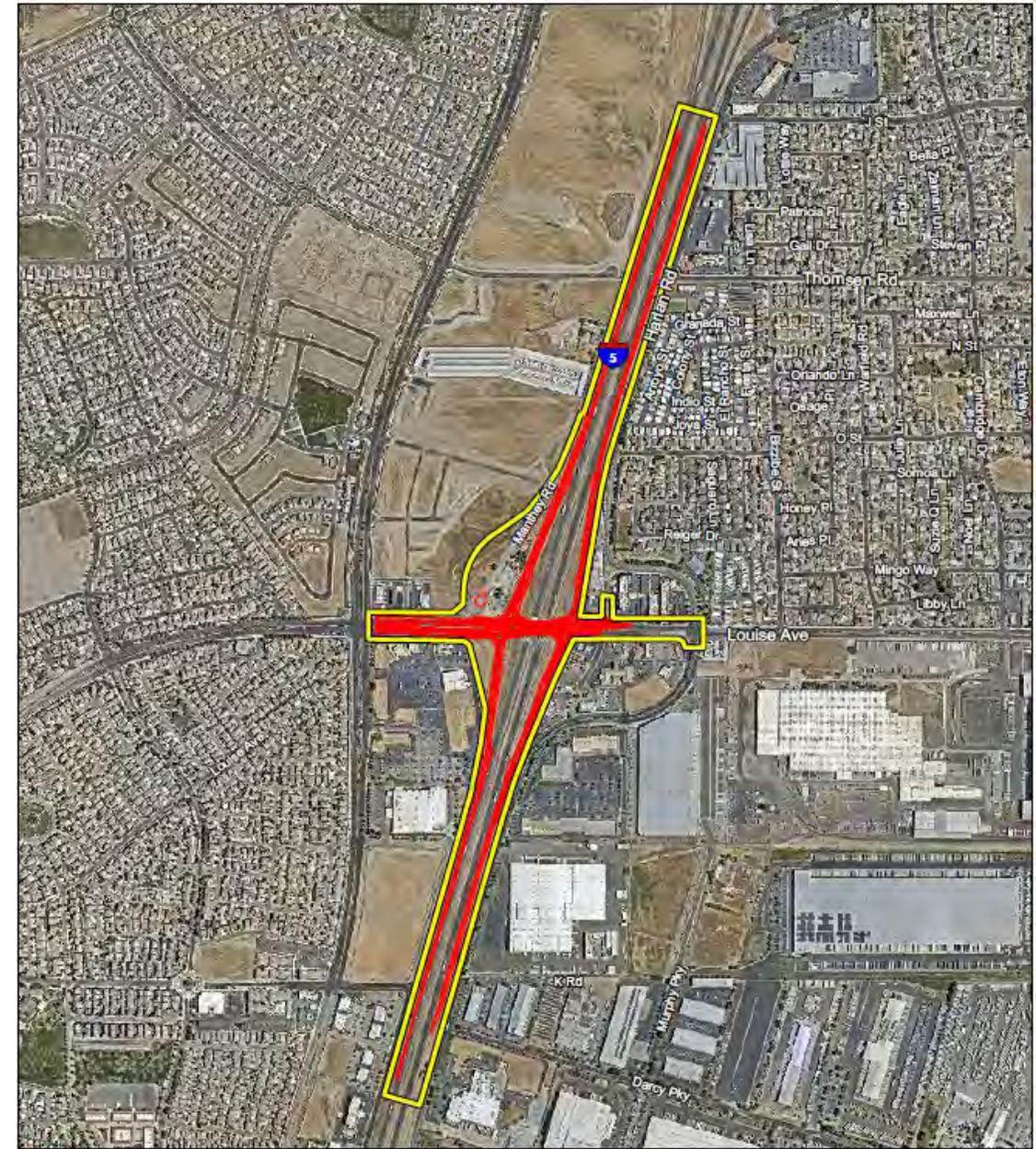
Project Build Alternative (cont.)

- Widen the existing southbound I-5 off-ramp from one 12 ft lane to two 12 ft dedicated left-turn lanes and one 12 ft dedicated right-turn lane.
- Widen the southbound I-5 on-ramp from one 12 ft lane to two 12 ft GP lanes and one 12 ft HOV bypass lane.
- Widen westbound River Islands Parkway within the project limits to tie into the future River Islands Parkway.
- Widen the eastbound River Islands Parkway approach to the southbound I-5 on-ramp to accommodate two 12 ft through lanes and a 12 ft dedicated right-turn lane.
- Construct northbound I-5 on-ramp metering.
- Construct southbound I-5 on-ramp metering.
- Construct tie-back retaining walls along Louise Avenue underneath the existing I-5 undercrossing.
- Construct a retaining wall along the southbound I-5 on-ramp.
- Construct a cul-de-sac that will eliminate access from Manthey Road onto Louise Avenue.
- Provide new two-phase traffic signals at the northbound and southbound I-5 ramp terminals.
- Construct Class II bicycle lanes along Louise Avenue.
- Construct new sidewalks along eastbound and westbound Louise Avenue.
- Construct 0.43 miles of auxiliary lane between southbound Lathrop Road ramp entrance to the southbound Louise Avenue ramp exit on I-5. (Exempt per 40 CFR 93.126)
- Construct 0.41 miles of auxiliary lane between the northbound Louise Avenue ramp entrance and the northbound Lathrop Road ramp exit on I-5. (Exempt per 40 CFR 93.126)

Project Design – Diverging Diamond Interchange

This figure demonstrates the project study area with the footprint of the DDI improvements associated with the proposed project. We have linked the figure along with the I-5/Louise Avenue design plan's specifications below:

[I-5 Louise Avenue Diverging Diamond Interchange Design Plans Link](#)



LEGEND
Project Study Area
Proposed Plans

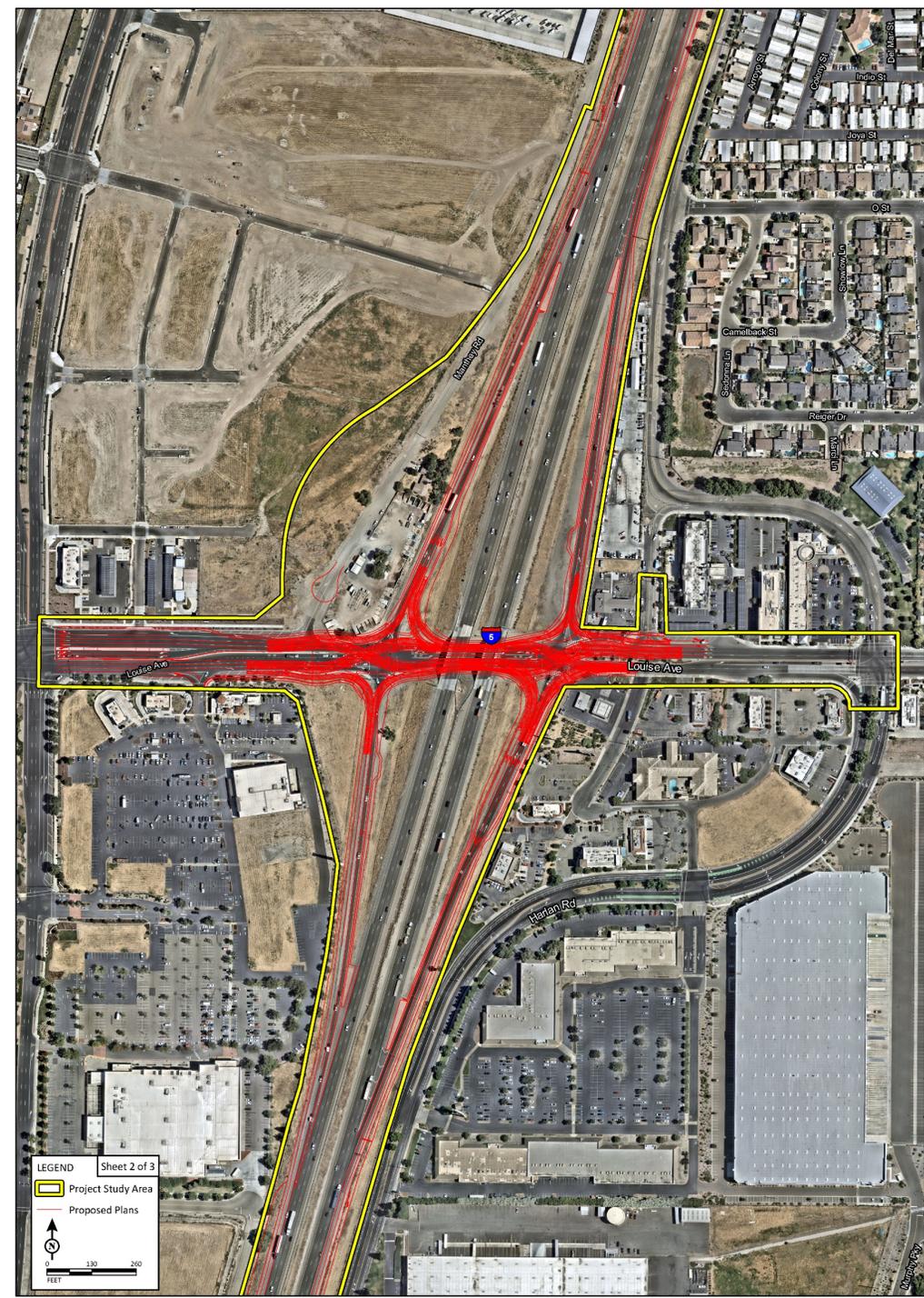
DDI Design Sheet 1

Sheet one shows the northern end of the project area with the design footprint.



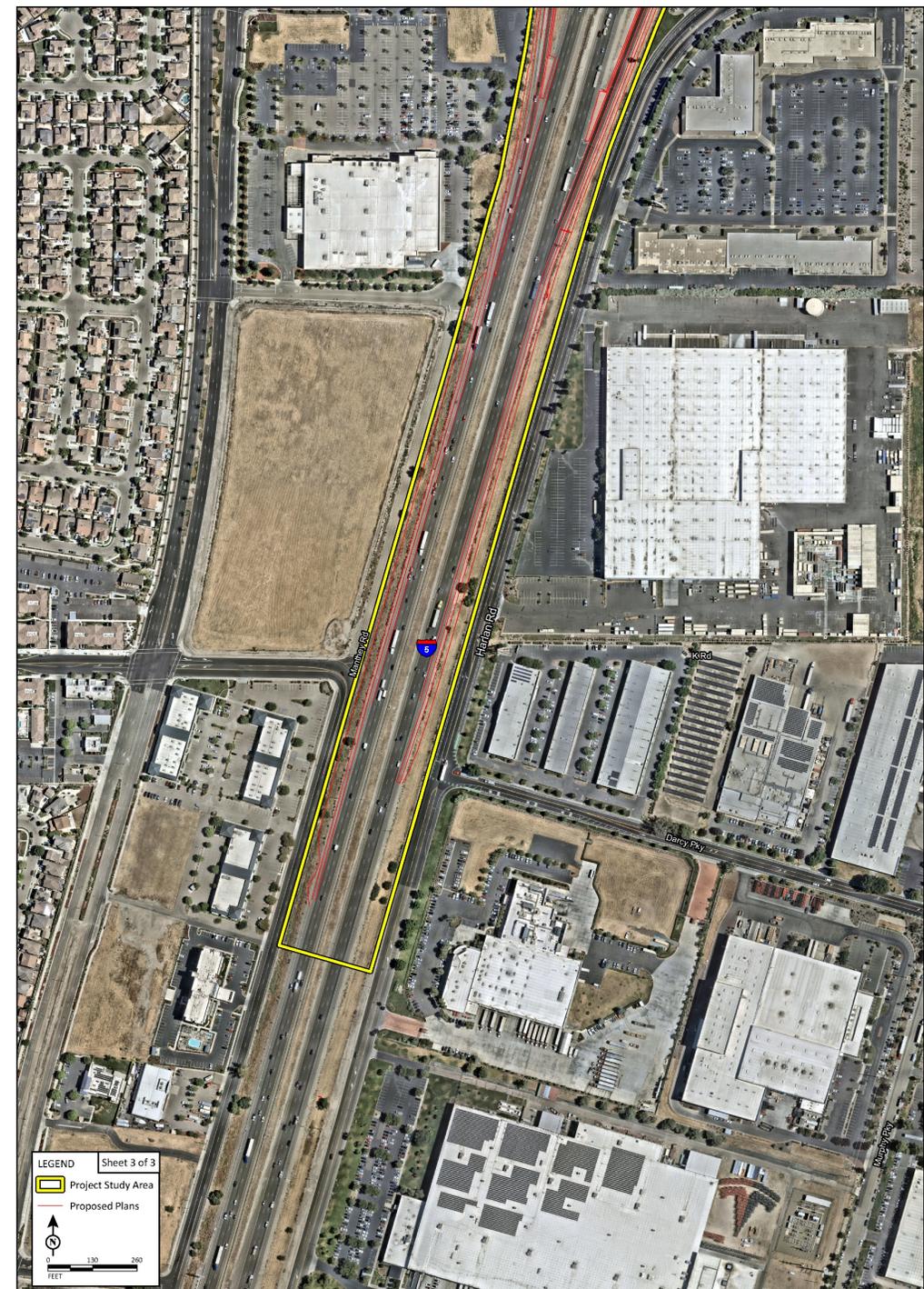
DDI Design Sheet 2

Sheet two shows the central portion of the project area with the design footprint of the DDI.



DDI Design Sheet 3

Sheet three shows the southern portion of the project area with the design footprint.



2025 FTIP Formal Amendment

- The 2025 FTIP Formal Amendment approved by SJCOG on June 26, 2025 and was approved by FHWA on July 18, 2025, and it included the I-5 Louise Avenue Project. The following changes were included:
 1. Project Description was revised to include the auxiliary lanes (less than 1 mile in length).
 2. Additional funding was identified in the project phases, which is included in the following slide.

**San Joaquin Council of Governments - Federal Transportation Improvement Program
(Dollars in Whole)
State Highway System**

DIST: 10	PPNO: EA: 0E550	CTIPS ID: 212-0000-0849	TITLE (DESCRIPTION): I-5 / Louise Avenue Interchange Improvements (Convert existing interchange to diverging diamond interchange (DDI) and include the following: widen existing I-5 on-&off-ramps; reconstruct undercrossing; construct ramp metering; construct two new auxiliary lanes (less than one mile in length); provide new traffic signals; and construct bike lanes & sidewalks along Louise Avenue.)	MPO Aprv: State Aprv: Federal Aprv:
CT PROJECT ID:		MPO ID.: SJ07-2005		EPA TABLE II or III EXEMPT CATEGORY Interchange reconfiguration projects.
COUNTY: San Joaquin County	ROUTE:	PM:		

IMPLEMENTING AGENCY: Lathrop, City of
PROJECT MANAGER: Leisser Mazariegos

PHONE: (209) 941-7427

EMAIL: lmazariegos@ci.lathrop.ca.us

PROJECT VERSION HISTORY (Printed Version is Shaded)

(Dollars in whole)

Version	Status	Date	Updated By	Change Reason	Amend No.	Prog Con	Prog RW	PE
2	Active	05/28/2025	TYPHIMMA	Amendment - Cost/Scope/Sch. Change	16	38,250,000	1,438,744	8,558,640
1	Official	08/22/2024	TYPHIMMA	Adoption - Carry Over	0			400,000

* Local Funds -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 1 of 1	PE	5,858,640	2,700,000							8,558,640
* Fund Type: Developer Fees	RW			1,438,744						1,438,744
* Funding Agency: Lathrop, City of	CON					38,250,000				38,250,000
	Total:	5,858,640	2,700,000	1,438,744		38,250,000				48,247,384

Comments:

***** Version 2 - 05/19/2025 ***** Total project cost = \$48,247,384.

NOTES: These are improvements to an "existing" interchange and are NOT modeled (SJCOG regional traffic model is not complex enough) for conformity. Also, per 40 CFR 93.127 Table 3, interchange reconfiguration projects are exempt from REGIONAL conformity.

Project Overview and IAC Call

Project Description

- The proposed project would improve the existing compact diamond (Type L-1) interchange at I-5/Louise Avenue by constructing a diverging diamond interchange (DDI) to accommodate the traffic associated with growth planned in the City of Lathrop's General Plan by. Additionally, the project would include the following major project elements, widen the existing I-5 on- and off-ramps, reconstruct the undercrossing underneath the existing freeway bridge, construct I-5 ramp metering, construct two new auxiliary lanes (less than one mile in length), provide new traffic signals, construct Class II bicycle lanes along Louise Avenue and new sidewalks along Louise Avenue.
- Caltrans is the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).
 - The CEQA Environmental Document would be an Initial Study with Mitigated Negative Declaration and the NEPA Environmental Document would be a Categorical Exclusion (Section 326 d[13]).
- The next following slides are purposed to provide clarity on the questions/comments and received at the previous IAC meeting held August 14, 2024.

IAC Call – August 14, 2024

Questions and Responses

1. What was the justification for 2020 as the current year for traffic data and how different (or similar) are the traffic estimates from more recent years?

Due to the disruption to travel related to the COVID-19 pandemic, the baseline (existing conditions) for the Traffic Operations Analysis Report (TOAR) was assumed to reflect conditions as they were in Spring 2020 (pre-COVID 19). Using Spring 2020 as the baseline conditions will avoid introducing travel uncertainty caused by COVID-19 into future year forecasts and analysis and includes an eventual return to travel demand growth conditions that existed prior to COVID-19.

The use of Year 2020 traffic volumes was based on when the Traffic Operations Analysis Report (TOAR) was initiated by the City of Lathrop and Caltrans District 10. These AM and PM peak hour traffic volumes were only used to validate the base year travel demand forecasting (TDF) model and describe how the interchange was operating when the TOAR was begun. As reported in the Interstate 5/Louise Avenue Interchange Project PA&ED: Model Validation memo dated September 20, 2021, the base year model volume for I-5 southbound south of Louise Avenue is 61,461. The memo also estimated the ADT volume at 61,600. The estimate used fall 2019 data for the AM & PM peak hour volumes and then converted to ADT volume using a factor. The memo shows that all model validation criteria are met. Using the validated TDF Model, future year traffic volumes for Opening Year, Interim Year and Design Year Conditions were developed based on projected growth on the local (City of Lathrop) and regional (Interstate 5) transportation system.

Table 1: Project Analysis Data

A review of count detector station data (Caltrans Performance Measurement System, www.pems.dot.ca.gov) shows that traffic volumes on I-5 have returned to previous traffic volume growth. Table 1 below shows how Annual Average Daily Traffic (AADT) for southbound I-5 south of Louise Avenue dropped in 2020 and then grew such that the 2023 and 2024 volumes are higher than the 2019 volume.

Year	Average Annual Daily Traffic
2019	66,330
2020	57,540
2021	65,810
2022	65,900
2023	66,570
2024	67,820

Source: Caltrans Performance Measurement System

AADT= Average Annual Daily Traffic Volumes

IAC Call – August 14, 2024

Questions and Responses

2. What are the proposed auxiliary lane improvements and are they capacity increasing?

The proposed auxiliary lane improvements are as follows:

- Construct 0.43 mile of auxiliary lane between southbound Lathrop Road ramp entrance to the southbound Louise Avenue ramp exit on I-5. (exempt per 40 CFR 93.126)
- Construct 0.41 mile of auxiliary lane between the northbound Louise Avenue ramp entrance and the northbound Lathrop Road ramp exit on I-5. (exempt per 40 CFR 93.126)

According to [*Transportation Analysis under CEQA Second Edition*](#) (Caltrans, 2024), the addition of an auxiliary lane of less than one mile in length design to improve roadway safety is not likely to lead to a measurable and substantial increase in vehicle travel. The proposed auxiliary lanes between Louise Avenue and Lathrop Road will each be less than 0.5 mile.

IAC Call – August 14, 2024

Questions and Responses

3. We received a comment to provide more clarification of the traffic truck data including truck demand volume percentages, Level of Service (LOS), and delay times.

We have incorporated new slides that clarify the traffic truck data, including truck demand volume percentages, LOS, delay times. The slides would demonstrate that implementation of the proposed project will not impact the peak-hour vehicle and peak-hour truck demand volumes, as the data indicates they would be the same for both the with and without project scenarios. Although there is an increase in traffic volumes in the year-to-year comparison, the amount is consistent with anticipated population and economic growth in the area and does not signal induced demand due to motorists coming to the area to take advantage of the improved intersection. As demonstrated in the Opening Year and Design Year scenarios, implementation of the DDI Build Alternative would result in a reduction in delay times and more optimal performance for LOS.

Table 2: I-5 Freeway Daily Demand Volume between SR 120 and Louise Avenue

Table 2 shows the project analysis data for the Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045 conditions. The table shows the I-5 freeway daily demand volumes between **SR 120 and Louise Avenue**. Note that the original open year used in the TOAR is 2025, which has been modified to be 2029 to comply with the current project schedule.

Model Year	Daily				Project-Related Increase
	Without Project		With Project		
	Total	Trucks	Total	Trucks	
Baseline (2020)	122,380	31,820 (26%)	NA	NA	NA
Opening Year (2029)	135,900	35,330 (26%)	135,900	35,330 (26%)	0
Interim Year (2042)	143,080	37,200 (26%)	143,080	37,200 (26%)	0
Design Year (2045)	147,970	38,470 (26%)	147,970	38,470 (26%)	0

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022)

Note: Daily volumes estimated using a factor of 7.25 times the sum of the AM and PM peak hour volume as reported in *Interstate 5/Louise Avenue Interchange Project PA&ED: Model Validation* memo (September 20, 2021). The daily truck percentage comes from the Caltrans Census Program’s *Annual Average Daily Truck Traffic*, which provides a 1996 estimated daily count of 26% trucks on this section of I-5.

Table 3: I-5 Freeway Peak Hour Demand Volume between SR 120 and Louise Avenue

Table 3 shows the project analysis data for the Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045 conditions. The table shows the I-5 freeway demand volumes between **SR 120 and Louise Avenue**.

Model Year	AM Peak Hour					PM Peak Hour				
	Without Project		With Project		Project-Related Increase	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	7,960	1,195 (15%)	NA	NA	NA	8,920	1,055 (12%)	NA	NA	NA
Opening Year (2029)	8,910	1,337 (15%)	8,910	1,337 (15%)	0	9,840	1,181 (12%)	9,840	1,181 (12%)	0
Interim Year (2042)	9,525	1,435 (15%)	9,525	1,435 (15%)	0	10,210	1,231 (12%)	10,210	1,231 (12%)	0
Design Year (2045)	9,880	1,488 (15%)	9,880	1,488 (15%)	0	10,530	1,269 (12%)	10,530	1,269 (12%)	0

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Note: Year 2029 volume estimated using linear interpolation of Year 2025 and Year 2042 volume.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Table 4: I-5 Freeway Density and Level of Service between SR 120 and Louise Avenue

Table 4 shows freeway density and level of service at the I-5 between **SR 120 and Louise Avenue** for Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045.

Model Year	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	NB	SB	NB	SB	NB	SB	NB	SB
Baseline (2020)	26.9/D	28.9/D	NA	NA	30.9/D	33.8/D	NA	NA
Opening Year (2029)	31.9/D	36.0/E	31.9/D	36.0/E	36.0/E	40.5/E	36.0/E	40.5/E
Interim Year (2042)	35.2/E	41.3/E	35.2/E	41.3/E	37.8/E	37.8/E	37.8/E	37.8/E
Design Year (2045)	37.8/E	37.8/E	37.8/E	37.8/E	37.8/E	44.3/E	37.8/E	44.3/E

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Note Year 2029 density estimated using linear interpolation of Year 2025 and Year 2042 density.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Table 5: I-5 Freeway Daily Demand Volume between Louise Avenue and Lathrop Road

Table 5 shows the project analysis data for the Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045 conditions. The table shows the I-5 freeway daily demand volumes between **Louise Avenue and Lathrop Road**.

Model Year	Daily				Project-Related Increase
	Without Project		With Project		
	Total	Trucks	Total	Trucks	
Baseline (2020)	119,550	31,820 (26%)	NA	NA	NA
Opening Year (2029)	124,780	32,440 (26%)	124,780	32,440 (26%)	0
Interim Year (2042)	120,310	31,280 (26%)	120,310	31,280 (26%)	0
Design Year (2045)	122,820	31,930 (26%)	122,820	31,930 (26%)	0

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022)

Note: Daily volumes estimated using a factor of 7.25 times the sum of the AM and PM peak hour volume as reported in *Interstate 5/Louise Avenue Interchange Project PA&ED: Model Validation* memo (September 20, 2021). The daily truck percentage comes from the Caltrans Census Program’s *Annual Average Daily Truck Traffic*, which provides a 1996 estimated daily count of 26% trucks on this section of I-5.

Table 6. I-5 Freeway Peak Hour Demand Volume between Louise Avenue and Lathrop Road

Table 6 shows the I-5 Freeway peak hour demand volume between **Louise Avenue and Lathrop Road** for Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045.

Model Year	AM Peak Hour					PM Peak Hour				
	Without Project		With Project		Project-Related Increase	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	7,650	1,148 (15%)	NA	NA	NA	8,840	1,061 (12%)	NA	NA	NA
Opening Year (2029)	8,020	1,203 (15%)	8,020	1,203 (15%)	0	9,190	1,103 (12%)	9,190	1,103 (12%)	0
Interim Year (2042)	7,795	1,169 (15%)	7,795	1,169 (15%)	0	8,800	1,056 (12%)	8,800	1,056 (12%)	0
Design Year (2045)	7,960	1,194 (15%)	7,960	1,194 (15%)	0	8,980	1,078 (12%)	8,980	1,078 (12%)	0

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Note Year 2029 volume estimated using linear interpolation of Year 2025 and Year 2042.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Table 7: I-5 Freeway Density and Level of Service between Louise Avenue and Lathrop Road

Table 7 shows freeway density and level of service at the I-5 between **Louise Avenue and Lathrop Road** for Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045.

Model Year	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	NB	SB	NB	SB	NB	SB	NB	SB
Baseline (2020)	30.6/D	29.3/D	NA	NA	31.9/D	33.6/D	NA	NA
Opening Year (2029)	32.0/D	31.3/D	32.0/D	31.3/D	32.9/D	34.8/D	32.9/D	34.8/D
Interim Year (2042)	32.5/D	33.2/D	32.5/D	33.2/D	32.4/D	34.9/D	32.4/D	34.9/D
Design Year (2045)	32.1/D	33.9/D	32.1/D	33.9/D	32.1/D	33.7/D	32.1/D	33.7/D

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Note Year 2029 density estimated using linear interpolation of Year 2025 and Year 2042 density.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Table 8. Louise Avenue and I-5 Southbound Ramps Demand Volume

Table 8 shows the Louise Avenue and I-5 southbound ramps demand volume for Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045.

Model Year	AM Peak Hour					PM Peak Hour				
	Without Project		With Project		Project-Related Increase	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	2,170	152 (7%)	NA	NA	NA	2,450	123 (5%)	NA	NA	NA
Opening Year (2029)	3,180	223(7%)	3,180	223 (7%)	0	3,470	174 (5%)	3,470	174 (5%)	0
Interim Year (2042)	4,600	322 (7%)	4,600	322 (7%)	0	4,885	245 (5%)	4,885	245 (5%)	0
Design Year (2045)	4,930	346 (7%)	4,930	346 (7%)	0	5,210	261 (5%)	5,210	261 (5%)	0

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Note Year 2029 volume estimated using linear interpolation of Year 2025 and Year 2042.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Table 9: Louise Avenue and I-5 Southbound Ramps Delay and Level of Service

Table 9 shows the **Louise Avenue and I-5 southbound ramps** delay and level of service for Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045.

Model Year	AM Peak Hour		PM Peak Hour	
	Without Project	With Project	Without Project	With Project
Baseline (2020)	31.1/C	NA	30.5/C	NA
Opening Year (2029)	53.0/D	12.7/B	69.2/E	18.4/B
Interim Year (2042)	125.5/F	24.2/C	134.9/F	35.8/D
Design Year (2045)	114.5/F	27.6/C	133.1/F	47.4/D

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Note: Year 2029 delay estimated using linear interpolation of Year 2025 and Year 2042 delay.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Table 10. Louise Avenue and I-5 Northbound Ramps Demand Volume

Table 10 shows the **Louise Avenue and I-5 northbound ramps** demand volume for Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045.

Model Year	AM Peak Hour					PM Peak Hour				
	Without Project		With Project		Project-Related Increase	Without Project		With Project		Project-Related Increase
	Total	Trucks	Total	Trucks		Total	Trucks	Total	Trucks	
Baseline (2020)	2,715	191 (7%)	NA	NA	NA	3,170	159 (5%)	NA	NA	NA
Opening Year (2029)	3,325	223 (7%)	3,325	233 (7%)	0	3,470	174 (5%)	3,470	174 (5%)	0
Interim Year (2042)	4,165	292 (7%)	4,165	292 (7%)	0	4,750	238 (5%)	4,750	238 (5%)	0
Design Year (2045)	4,360	306 (7%)	1,360	306 (7%)	0	4,960	248 (5%)	4,960	248 (5%)	0

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Year 2029 volume estimated using linear interpolation of Year 2025 and Year 2042 volume.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Table 11: Louise Avenue and I-5 Northbound Ramps Delay and Level of Service

Table 11 shows the **Louise Avenue and I-5 northbound ramps** delay and level of service for Baseline Year 2020, Opening Year 2029, Interim Year 2042, and Design Year 2045.

Model Year	AM Peak Hour		PM Peak Hour	
	Without Project	With Project	Without Project	With Project
Baseline (2020)	26.4/C	NA	28.1/C	NA
Opening Year (2029)	67.0/E	17.7/B	90.0/F	18.4/B
Interim Year (2042)	118.9/F	30.8/C	110.4/F	36.2/D
Design Year (2045)	120.2/F	49.0/D	108.4/F	50.6/D

Source: I-5/Louise Avenue Interchange – Final Traffic Operations Analysis Report (Fehr&Peers, 2022). Note: Year 2029 delay estimated using linear interpolation of Year 2025 and Year 2042 delay.

GP = General purpose lane
 HOT = High occupancy toll lane
 HOV = High occupancy vehicle

I-5 = Interstate 5
 NA = Not applicable

NB = Northbound
 SB = Southbound

Summary of Traffic Findings

Implementation of the proposed project will not impact the peak-hour vehicle and peak-hour truck demand volumes, as the data indicates they would be the same for both the with and without project scenarios. Although there is an increase in traffic volumes in the year-to-year comparison, the amount is consistent with anticipated population and economic growth in the area and does not signal induced demand due to motorists coming to the area to take advantage of the improved intersection. As demonstrated in the Opening Year and Design Year scenarios, implementation of the DDI Build Alternative would result in a reduction in delay times and more optimal performance for LOS.

The proposed project is necessary because the City of Lathrop is projected to experience increased traffic demands at the I-5/Louise Avenue interchange. Economic growth is projected on both the west and east sides of the I-5/Louise Avenue interchange; the improved interchange is needed to support traffic volumes anticipated at the interchange under future conditions. The project is also needed to improve access to I-5, improve east-west mobility along Louise Avenue, and increase multi-modal safety. The Louise Avenue interchange is an important link to I-5 for the City of Lathrop, City of Manteca, and San Joaquin County. The projected growth in and around the City of Lathrop will place traffic demands on the existing interchange that cannot be met unless improvements are made.

Project-level Conformity Conclusion

Caltrans, as the CEQA Lead Agency, has determined that this **project does not meet the criteria for a POAQC** as defined in the final rule by 40 CFR 93.123(b)(1). The project is listed as one of the non-exempt project examples that are not a local air quality concern under 40 CFR 93.123(b)(1)(i) and (ii) stated as

- **An intersection channelization project or interchange configuration project that involves either turn lanes or slots, or lanes or movements that are physically separated. These kinds of projects improve freeway operations by smoothing traffic flow and vehicle speeds by improving weave and merge operations, which would not be expected to create or worsen PM NAAQS violations.**
- **Intersection channelization projects, traffic circles or roundabouts, intersection signalization projects at individual intersections, and interchange reconfiguration projects that are designed to improve traffic flow and vehicle speeds, and do not involve any increases in idling. Thus, they would be expected to have a neutral or positive influence on PM emissions.**

Project-level Conformity Conclusion

Additionally, the project does meet the criteria for not a “Project of Air Quality Concern” based on the November 2013 Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, which states “Section 93.123(b)(1) of the conformity rule defines the projects that require a PM_{2.5} or PM₁₀ hot-spot analysis as:

- i. New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
- ii. Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- iii. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- iv. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location.

Project-level Conformity Conclusion (cont.)

Based on the projected traffic shown above, Caltrans has determined that the I-5/Louise Avenue Interchange Improvement project does not meet the criteria for a POAQC for the following reasons:

- The with and without traffic volumes and truck volumes for the project are the same for the Baseline, Open to Traffic, Interim, and Design Years. Traffic/truck volumes are not anticipated to increase significantly over the life of the project.
- Replacing the existing tight-diamond interchange with a diverging diamond interchange will calm traffic, lessen delay times and directly reduce the amount of harmful emissions due to less car and truck idling.
- The project would improve (reduce) vehicle delay times as demonstrated through the comparison of the Opening Year 2025 No Project Alternative, Opening Year 2025 DDI Alternative, Design Year 2045 No Project Alternative, and Design Year 2045 DDI Alternative scenarios.
- The project would improve local east-west circulation in Lathrop between State Route 99 and Interstate 5.

Questions?

Contact Information

Aaron Silva

(916)769-5952

asilva@markthomas.com

Cesar Madrigal

760-579-7841

Cesar.madrigal@lsa.net

Ken Romero

559.593.5891

ken.j.romero@dot.ca.gov

Appendix

Project Description

- The City of Lathrop, in cooperation with California Department of Transportation (Caltrans), the San Joaquin Council of Government (SJCOG), and the Federal Highway Administration (FHWA) proposes to improve local and regional circulation by improving the Interstate 5 (I-5)/Louise Avenue Interchange (project). The interchange improvements are needed to enhance traffic operations and mobility, which will accommodate future traffic demands as a result of the growth planned for in the City of Lathrop's General Plan.
- The proposed project would improve the existing compact diamond (Type L-1) interchange at I-5/Louise Avenue to accommodate the traffic associated with growth planned in the City of Lathrop's General Plan.
- Additionally, the project would include the following major project elements, widen the existing I-5 on- and off-ramps, reconstruct the undercrossing underneath the existing freeway bridge, construct I-5 ramp metering, construct two new auxiliary lanes (less than one mile in length), provide new traffic signals, construct Class II bicycle lanes along Louise Avenue and new sidewalks along Louise Avenue.
- Caltrans is the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).
 - The CEQA Environmental Document would be an Initial Study with Mitigated Negative Declaration and the NEPA Environmental Document would be a Categorical Exclusion (Section 326 d[13]).

Project Purpose

The purpose of the project is to improve traffic operations and accommodate anticipated travel demand due to development approved by the City of Lathrop General Plan.

Specifically, the project purpose is to:

- Improve local east-west circulation in Lathrop between State Route 99 and Interstate 5
- Improve access to Interstate 5
- Improve traffic operations at the interchange
- Improve traffic operations on Interstate 5
- Provide sidewalk and pedestrian crossings along Louise Avenue to improve multi-modal safety
- Implement ramp metering to improve I-5 mainline flow and travel time reliability
- Provide bicycle lane connectivity along Louise Avenue.
- Improve travel time savings, throughput, and reliability of vehicle and freight movement within the City of Lathrop and along I-5.
- Provide improved Surface Transportation Assistance Act access within the City of Lathrop.

Project Need

The proposed project is necessary because the City of Lathrop is projected to experience increased traffic demands at the I-5/Louise Avenue interchange. Significant economic growth is projected west and on the west sides of the I-5/Louise Avenue interchange; the improved interchange is needed to support traffic volumes anticipated at the interchange under future conditions to improve access to I-5, east-west mobility along Louise Avenue, and multi-modal safety. The Louise Avenue interchange is an important link to I-5 for the City of Lathrop, City of Manteca, and San Joaquin County. The projected growth in and around the City of Lathrop will put traffic demands on the existing interchange that cannot be met unless improvements are made.

Without any improvements, traffic will experience delays and extensive queuing due to congestion; this, in turn, will bring about inefficient fuel consumption, deteriorating air quality and creating unacceptable level of service conditions.

The project is also needed to:

- Enhance safety and reliability for vehicle and truck traffic along I-5/Louise Avenue
- Enhance safety and accessibility for bicycle and pedestrian traffic along Louise Avenue
- Reduce emission output through enhanced operations, which will reduce heavy truck idling by better interchange throughput

Project Listing in the FTIP

Table 6-2: 2022 Regional Transportation Project List - Interchange Improvements Category

Identifiers		Project Information		Facility Name/Route	Project Description	Project Limits	Cost to Deliver	Total	Milestone Years				
2022 RTP MPO ID	CTIPS ID #	PPNO	Jurisdiction						FTIP Programming	NEPA Approval	Open to Traffic	MK Renewal Project	RTIF Project
SJ07-2005			Lathrop	I-5 / Louise Avenue Interchange Improvements	Reconstruct existing interchange to diverging diamond interchange(DDI) and include the following: widen existing I-5 on- & off-ramps; reconstruct undercrossing; construct ramp metering; construct two new auxiliary lanes (less than one mile in length); provide new traffic signals; and construct bike lanes & sidewalks along Louise Avenue.	I-5 at Louise Avenue		\$48,247,384	2024	2029		X	

FTIP Amendment Number 16

2022 Regional Transportation Plan Project List

**San Joaquin Council of Governments - Federal Transportation Improvement Program
(Dollars in Whole)
State Highway System**

DIST: 10	PPNO: EA: 0E550	CTIPS ID: 212-0000-0849	TITLE (DESCRIPTION): I-5 / Louise Avenue Interchange Improvements (Convert existing interchange to diverging diamond interchange (DDI) and include the following: widen existing I-5 on-&off-ramps; reconstruct undercrossing; construct ramp metering; construct two new auxiliary lanes (less than one mile in length); provide new traffic signals; and construct bike lanes & sidewalks along Louise Avenue.)	MPO Aprv: State Aprv: Federal Aprv:
CT PROJECT ID:		MPO ID.: SJ07-2005		EPA TABLE II or III EXEMPT CATEGORY Interchange reconfiguration projects.
COUNTY: San Joaquin County	ROUTE:	PM:		

IMPLEMENTING AGENCY: Lathrop, City of
PROJECT MANAGER: Leisser Mazariegos

PHONE: (209) 941-7427

EMAIL: lmazariegos@ci.lathrop.ca.us

PROJECT VERSION HISTORY (Printed Version is Shaded)

(Dollars in whole)

Version	Status	Date	Updated By	Change Reason	Amend No.	Prog Con	Prog RW	PE
2	Active	05/28/2025	TYPHIMMA	Amendment - Cost/Scope/Sch. Change	16	38,250,000	1,438,744	8,558,640
1	Official	08/22/2024	TYPHIMMA	Adoption - Carry Over	0			400,000

* Local Funds -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 1 of 1	PE	5,858,640	2,700,000							8,558,640
* Fund Type: Developer Fees	RW			1,438,744						1,438,744
* Funding Agency: Lathrop, City of	CON					38,250,000				38,250,000
	Total:	5,858,640	2,700,000	1,438,744		38,250,000				48,247,384

Comments:

***** Version 2 - 05/19/2025 ***** Total project cost = \$48,247,384.

NOTES: These are improvements to an "existing" interchange and are NOT modeled (SJCOG regional traffic model is not complex enough) for conformity. Also, per 40 CFR 93.127 Table 3, interchange reconfiguration projects are exempt from REGIONAL conformity.

Project Schedule

Construction activities (e.g., mobilization, widening, demobilization and final striping) are anticipated to commence in 2027 and be completed by 2028. Construction is planned to last approximately 19 months. Table below lists the anticipated milestone completion dates.

Construction Phase	Begin Date	Completion Date
Advertisement and Award of Contract	January 2027	March 2027
Construction	April 2027	December 2028
Final Project Closeout	February 2029	

Table A1: TASAS Table B Crash Rates (4/1/2019 - 3/31/2022)

Table A1 summarizes the crash rates for the mainline segment of the project on San Joaquin County, Route 5 from PM R15.9 to R17.3. Table 6 reports were generated on October 10, 2023, and they depict baseline crash rates per million vehicle miles for 36 months period from April 1, 2019 to March 31, 2022 from the Traffic Accident Surveillance and Analysis System.

Mainline Segment	Total Number of Crashes	ACTUAL (per million vehicle miles)			AVERAGE (per million vehicle miles)		
		Fatal Crashes	Fatal+ Injury Crashes	Total ¹	Fatal Crashes	Fatal+ Injury Crashes	Total ¹
Interstate 5 PM R15.9 to R17.3	145	0.006	0.28	0.82	0.006	0.41	1.24

Source: 0E550 TASAS Table B, October 2023

1. All reported crashes (includes Property Damage Only Crashes)

PM = Post mile

TASAS = Traffic Accident Surveillance and Analysis System

San Joaquin Valley Project-Level Conformity Working Group

Project-Level Conformity Determination for

Interstate 5/Louise Avenue Interchange Improvement Project, City of Lathrop, San Joaquin County

Meeting Minutes

Wednesday, October 15, 2025, 1:00 pm – 2:00 pm (PT)

The meeting was held via Teams teleconference.

Attendees

- SJV AQ Coordinator (Trinity Consultants): Suriya Vallamsundar
- SJCOG: Ty Phimmason
- Project Team: Cesar Madrigal (LSA), Edward Heming (LSA), Bianca Martinez (LSA), Aaron Silva (Mark Thomas), David Stanek (Fehr & Peers)
- Caltrans HQ: Rodney Tavitas, Karishma Becha, Erika Vaca, Noe Puente, Kevin Hernandez Rios
- Caltrans District 6: Ken Romero
- Caltrans District 10: Sriram Iyer
- EPA: Lindsay Wickersham
- FHWA: Gilberto Contreras
- FTA: Michelle Ruan

Meeting Summary

- Introductions
Commencing the meeting, AQ Coordinator provided opening remarks and conducted a call to establish the attendance of all participants.
- Review of Non-Exempt Projects for the Project-level Particulate Matter (PM) Conformity
 - Introductions and Project Overview: AQ Coordinator introduced the Interstate 5/Louise Avenue Interchange Improvement Project, City of Lathrop, San Joaquin County.
 - Project Presentation: The project team presented the project details and the reasoning behind the proposed project-level conformity determination.
 - Public Comment Period: SJCOG informed the group that all project-level materials were available for public review on the COG website from September 24 through October 13, 2025. No comments were received during this public comment period.
- Discussion
The project team addressed comments and questions raised by EPA and Caltrans regarding the proposed interchange improvements.
 - EPA Comment: EPA asked for clarification on whether the project involves converting the existing diamond interchange above Louise Avenue into a converging diamond interchange (DDI). EPA also requested confirmation that the project does not include any capacity increase — noting that while auxiliary lanes are proposed between Louise Avenue and Lathrop, no new through lanes appear to be added.

Project Team's Response: The project converts the existing interchange into a converging diamond interchange. The additional lanes are limited to turning and auxiliary movements and will not increase through capacity.

- Caltrans D6 Comment: Caltrans inquired whether the new DDI will go over or under the freeway and confirmed that the project appears to maintain the existing structure. Caltrans also requested clarification on whether the project will affect traffic flow or level of service (LOS) on I-5.

Project Team’s Response: The DDI will remain under I-5, consistent with the existing configuration. The project does not change the number of through lanes on I-5. While auxiliary and acceleration lanes will be added to improve local weaving and merging operations, the overall mainline LOS is expected to remain similar under both build and no-build conditions, with minor localized improvements in certain segments.

- Determination
EPA and Caltrans concurred that the project is not a project of air quality concern (POAQC).
- Closing Remarks and Adjournment
AQ Coordinator informed the group that the final hot spot materials and meeting minutes will be posted to the SJCOG website. SJCOG will then send a final email to IAC, documenting the concurrences received.