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

The purpose of this form is to provide sufficient information to allow the interagency consultation group to determine whether a project is (1) exempt, (2) non-exempt and not a project of air quality concern, or (3) non-exempt and a project of air quality concern (which requires a quantitative project-level particulate matter hot-spot analysis).

It is the responsibility of the project sponsor to ensure that the form is filled out completely and provides sufficient detail for the interagency consultation group to make an informed decision on whether a project requires further analysis. For example, the interagency consultation group must consider the traffic impacts of the project; therefore, part of the required information includes no-build and build traffic data

STEP 1: PROJECT IDENTIFICATION

Project Name and Number: 06-0Y360 North Madera 6 Lane

FTIP/CTIPS# Identification Number [FTIP: Federal Transportation Improvement Program; CTIPS: California Transportation Improvement Program System]: 221-0000-0457.

City/County: City of Madera, Madera County.

Project Description: The project would widen State Route 99 from four to six lanes between post mile 15.1 and post mile 19.9 in Madera County.

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:

Hot-Spot Pollutant of Concern (check both): ☒$PM_{2.5}$ ☒PM_{10}

Lead Agency: Caltrans District 6

a. Contact Person: Ken Romero
b. Phone Number: 559-593-5891
c. Email: ken.j.romero@dot.ca.gov

NEPA Assignment – Project Type (check appropriate box)

☐	Categorical Exclusion (NEPA)	☒	EA or Draft EIS	☐	FONSI or Final EIS	☐	PS&E or Construction	☐	Other

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

NEPA Assignment – Project Type (check appropriate box)

☐	Exempt	☐	Section 326 –Categorical Exclusion	☒	Section 327 – Non-Categorical Exclusion

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: 7/17/2024

Current Programming Dates

Date	Action
3/12/2025	Begin Environmental
4/3/2028	Begin Project Approval & Environmental Document (PA&ED)
8/1/2029	Begin Design
11/15/2031	Ready to List (RTL)
6/6/2032	Begin Construction

L. Project Description (Summary; use additional sheets as needed)

a. Purpose and Need of the Project:

- Mainline Purpose:
  - Improve route continuity by widening State Route 99 from four to six lanes between Avenue 17 and Avenue 21½ (post miles 15.1 to 19.9).
  - Relieve traffic congestion.
  - Improve travel-time reliability.
  - Improve traffic operations and safety.
  - Repair and extend the service life of the existing pavement within the project limits.

- Mainline Need:
    - Close the existing six-lane gap between Avenue 17 and Avenue 21½ to improve route continuity.
        - The existing four-lane segment is the final portion of State Route 99 that has not been upgraded to six lanes. This project will expand the four-lane segment to six lanes, completing the continuous six-lane facility along this stretch of State Route 99.
    - Relieve traffic congestion and improve travel-time reliability.
        - All segments of State Route 99 within the project limits currently operate at levels of service ranging from D to F. If the remaining D segments are not improved, their level of service will deteriorate to F, resulting in significantly increased commuter delays.
    - Improve safety.
        - Actual fatal, fatal-plus-injury, and total collision rates for similar roadways with comparable traffic volumes exceed statewide averages.
    - Repair and extend the service life of the existing pavement within the project limits.
        - Pavement within the project limits is distressed and requires rehabilitation.

b. Route name, route number, project length, and post mile locations:

Caltrans EA 06-0Y360; State Route 99, Post Miles 15.1 to 19.9 (Madera County).

c. Number of existing and proposed lanes (specify the current and future number of lanes, indicating whether any lanes serve exclusively as turn lanes.)

Roadway	No Build	Build
State Route 99	Four Lanes	Six Lanes

The project proposes to add lanes within the existing median to widen the facility.

d. Identify as a “Capacity-Adding” or “Non-Capacity-Adding” project.

- This is a capacity-adding project.

e. Identify intersecting roads that will be impacted:

- Intersecting roads that will be impacted include Avenue 18½ and Avenue 21½.

f. Project impact on surrounding land use and traffic generators (discuss especially the effects on diesel traffic

- The Build and No-Build Average Daily Traffic and Truck Average Daily Traffic values for the project are the same in the Existing, Open-to-Traffic, and Design Years, indicating that increases in overall traffic and truck volumes are

attributable to anticipated population growth rather than to construction-induced traffic.

STEP 2: EXEMPT PROJECTS

☐EXEMPT PROJECT

No particulate matter project-level conformity is required, and no further documentation is needed. Go to Step 6.

Describe the type of Exempt Project:

☒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.

- Year(s) Selected for Proposed Facility:

  a. Year(s) selected

  Base/Existing Year 2022, Open-to-Traffic Year 2034, Design/Horizon Year 2054

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

  As modeled by the Caltrans District 10 Traffic Forecasting and Technical Analysis Branches, the traffic analysis is based on the Existing, Open-to-Traffic, and Design Years.

A. 2034 Opening-Year Traffic Information for the No-Build and Build Scenarios of the Proposed Facility

2034 Open to Traffic	No-Build Annual Average Daily Traffic	Build Annual Average Daily Traffic	No Build Truck (22 percent) Annual Average Daily Traffic	Build Truck (22 percent) Annual Average Daily Traffic
State Route 99	87,500	87,500	19,215	19,215

B. 2054 (Design) Analysis Year Traffic Information for No-Build and Build Scenarios of the Proposed Facility

2054 Design Year	No-Build Annual Average Daily Traffic	Build Annual Average Daily Traffic	No Build Truck (22 percent) Annual Average Daily Traffic	Build Truck (22 percent) Annual Average Daily Traffic
State Route 99	115,500	115,500	25,364	25,364

C. Describe Traffic Impacts (if appropriate) [Provide any justification if build percent traffic is greater than the no-build, large changes in Annual Average Daily Traffic and truck percent, even if it is below EPA's criteria, etc.]

The segment of State Route 99 from post mile 15.1 to post mile 19.9 is the final section with only two lanes in each direction. Constructing an additional third lane in both directions will provide a continuous six-lane facility extending approximately 162 miles from Kern County to Madera County.

The current configuration reduces from three lanes to two lanes, causing significant travel-time delays, congestion, and a decline in the level of service within this segment. Vehicle speeds often decrease sharply, increasing the potential for near-miss collisions as traffic queues during peak hours. These operational issues can extend into nearby segments to the north and south, both of which currently provide three lanes in each direction.

- **Alleviate congestion:** Increasing the number of lanes along this segment will reduce bottlenecks, allowing traffic to maneuver more efficiently and enabling faster vehicles to pass slower-moving traffic safely.
- **Improve travel time:** The additional lane will minimize travel delays by allowing vehicles to travel continuously in three lanes rather than merging into two lanes along this portion of State Route 99.

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

- **Provide additional passing opportunities:** The added lane will allow smaller and faster vehicles to pass truck traffic safely, as trucks will primarily operate in the right lane.
- **Close the two-lane gap:** Closing the gap between the existing two-lane segment and nearby three-lane segments of State Route 99 will eliminate the need for traffic to redistribute due to changes in the number of lanes in the current configuration.
- **Enhance operational efficiency:** Upgrading the freeway to a continuous six-lane facility will maximize overall operational performance.
- **Improve air quality:** Improvements in the level of service will contribute to lower tailpipe emissions by reducing congestion and increasing average travel speeds.

Is additional traffic information (tables, maps, 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

STEP 4: POAQC DETERMINATION

☒ **NOT A PROJECT OF AIR QUALITY CONCERN** [Refer to EPA's 2021 guidance, EPA-420-B-21-037, and FHWA's FAQ document for complete details.] *Quantitative analysis is NOT required.* Interagency consultation *review, public participation, and concurrence are required. Provide the filled-out checklist to your MPO for the next steps. [Listed on page 1 under "Instructions"] Use the space to provide a detailed narrative and rationale for this conclusion.*

The North Madera 6-Lane project does not meet the criteria for a project of air quality concern as defined in the final rule by 40 Code of Federal Regulations Section 93.123(b)(1). It is a non-exempt project that is not a local air quality concern under 40 Code of Federal Regulations Section 93.123(b)(1)(i) and (ii), which states: "Any new or expanded highway project that primarily serves gasoline vehicle traffic (i.e., does not involve a significant number or an increase in the number of diesel vehicles), including such projects involving congested intersections operating at Level of Service D, E, or F." The Build/No-Build Annual Average Daily Traffic and Truck Annual Average Daily Traffic for the project are the same for the Existing, Open-to-Traffic, and Design years.

- The growth in traffic and truck volumes is due to the forecasted population growth in Madera County.
- Construction of the project would improve local traffic conditions and would not induce traffic beyond that associated with the forecasted population growth.

Project construction would improve operational efficiency by reducing congestion and travel delays, increasing the physical space for traffic to maneuver safely, and providing route continuity. Tailpipe emissions would decrease as congestion is alleviated, allowing vehicle engines to operate at more efficient speeds.

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 projects of air quality concern that are covered by 40 Code of Federal Regulations Section 93.123(b)(1)(i) and (ii)

- *New or expanded highway projects with a significant number of, or an increase in, diesel vehicles (e.g., 125,000 Annual Average Daily Traffic and 10,000 (8 percent) diesel truck traffic). Note: These metrics are examples and should not be considered as threshold levels.*
- *Project 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.*
- *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 the Particulate Matter 10 and Particulate Matter 2.5 applicable implementation plan or implementation plan submissions, as appropriate, as sites of violation or possible violation.*

Examples of projects of air quality concern that are covered by 40 Code of Federal Regulations Section 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 Code of Federal Regulations Section 93.101.*
- *An existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses increases by 50 percent or more, as measured by bus arrivals.*

STEP 5: ANALYSIS AND DOCUMENTATION (FOR PROJECTS OF AIR QUALITY CONCERN)

The following is a summary of documentation to be included for a quantitative particulate matter hot-spot analysis. Please refer to the EPA Quantitative Hot-Spot Guidance for more information. [See EPA Quantitative Particulate Matter Hot-Spot 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#pmguidance] Interagency consultation 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 Particulate Matter Hot-Spot Analysis:

- Description of project
- Description of the 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 timeframe 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 interagency consultation decisions on the latest planning assumptions used in the analysis.
- Documentation of any public comment on the latest planning assumptions used in the analysis.

STEP 6: PUBLIC AND INTERAGENCY CONSULTATION INVOLVEMENT

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

- San Joaquin Valley Project-Level Conformity Group Meeting Date:

- Summary of the interagency consultation comments received and responses:
- Summary of public comments received and responses:
- Interagency consultation concurrence date(s):

Additional Information on Traffic Data

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

A Summary of Existing Year 2022 Traffic Conditions

Scenario	AADT/Truck AADT	Peak Volume AM/PM (mph)	Peak Speed AM/PM (mph)	Peak AM/PM LOS
Existing Year 2022 No Build Peak	76,000/16,690	2,320/2,583	58/54	D/D
Existing Year No Build Non Peak		2,643/3,419	67/67	B/B

B. Summary of No Build 2034 and 2054 Conditions.

Scenario/ Analysis Year	AADT/Truck AADT	Peak Volume AM/PM (mph)	Peak Speed AM/PM (mph)	Peak AM/PM LOS
2034 No Build Peak	87,500/19,215	2,663/2,878	52/47	D/E
2034 No Build Non Peak		3,037/3,929	67/67	B/C
2054 No Build Peak	115,500/25,364	3,483/3,192	48/43	F/F
2054 No Build Non Peak		3,490/4,515	67/67	B/C

C. Summary of Build 2034 and 2054 Conditions.

Scenario/ Analysis Year	AADT/Truck AADT	Peak Volume AM/PM (mph)	Peak Speed AM/PM (mph)	Peak AM/PM LOS
2034 Build Peak	87,500/19,215	2,878/3,203	58/58	C/D
2034 Build Non Peak		3,307/3,929	67/67	B/C
2054 Build Peak	115,500/25,364	3,761/4,201	56/54	D/D
2054 Build Non Peak		3,710/4,515	67/67	B/B