

## Project Assessment Form for PM<sub>2.5</sub> Interagency Consultation

**Project Title: I-680 NB) HOV/Express Lanes – SR 237 to SR 84 (Vallecitos Road)**

**Project Summary for Air Quality Conformity Task Force Meeting: (October 25, 2012)**

### Description

The Alameda County Transportation Commission (Alameda CTC) proposes to construct an approximately 15-mile High Occupancy Vehicle/High Occupancy Toll (HOV/HOT or express lane) project<sup>1</sup> on northbound Interstate 680 (I-680) from south of State Route (SR) 237 in Santa Clara County to north of State Route 84 (SR 84) (Vallecitos Road) in Alameda County. The project limits extend along I-680 from Post Mile 7.5 to 9.9 in Santa Clara County and Post Mile 0.0 to 12.4 in Alameda County. The new HOV/express lane would pass in and near the cities of Milpitas, Fremont, and Pleasanton, and the community of Sunol.

### Background

- NEPA and CEQA process for Environmental Impact Report/Environmental Assessment (EIR/EA) is scheduled to be completed in March 2015
- Seeking air quality conformity determination on October 25, 2012

### Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

*(i) New or expanded highway projects with significant number/increase in diesel vehicles?*

- No significant change in truck percentages
- For year 2020 the highest truck percent is 5.1% (4,100 AADTT)
- For year 2040 the highest truck percent is 5.2% (4,600 AADTT)
- Increase in traffic volume but no significant change in truck percentages

*(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?*

- No project changes to land use that would affect diesel traffic percentage

*(iii) New bus and rail terminals and transfer points?—Not Applicable*

*(iv) Expanded bus and rail terminals and transfer points?—Not Applicable*

*(v) Affects areas identified in PM<sub>10</sub> or PM<sub>2.5</sub> implementation plan as site of violation?*

- No state implementation plan for PM<sub>2.5</sub> (due by December 2012)
- Therefore, not identified in plan as an area of potential violation

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<sup>1</sup> HOV lanes are high occupancy vehicle lanes, also known as carpool or diamond lanes. Express lanes are high occupancy toll lanes that allow single-occupant vehicles to drive in the HOV lane for a toll. HOV and transit users would continue to be able to access the lane for free. Tolls are collected electronically with the use of a transponder. Toll price varies by congestion level; the less capacity available in the express lane, the higher the toll. In this way, the use of the HOV/express lane is optimized.

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<b>RTIP ID#</b> <i>(required)</i> ALA 050029				
<b>TIP ID#</b> <i>(required)</i> 22991				
<b>Air Quality Conformity Task Force Consideration Date</b> October 25, 2012				
<p><b>Project Description</b></p> <p>The Alameda County Transportation Commission (Alameda CTC) proposes to construct an approximately 15-mile High Occupancy Vehicle/High Occupancy Toll (HOV/HOT or express lane) project on northbound Interstate 680 (I-680) from south of State Route (SR) 237 in Santa Clara County to north of State Route 84 (SR 84) (Vallecitos Road) in Alameda County. The project limits extend along I-680 from Post Mile 7.5 to 9.9 in Santa Clara County and Post Mile 0.0 to 12.4 in Alameda County. The new HOV/express lane would pass in and near the cities of Milpitas, Fremont, and Pleasanton, and the community of Sunol.</p> <p>Auxiliary lanes connecting on-ramps and off-ramps in the northbound direction will be constructed between the following six freeway interchanges: Jacklin Road, Scott Creek Road, Mission Boulevard (SR 262), Durham Road (Auto Mall Parkway), Washington Boulevard, and Mission Boulevard (SR 238).</p> <p>.</p>				
<p><b>Type of Project:</b> Change to existing State highway</p>				
<b>County</b> Santa Clara/Alameda		<b>Narrative Location/Route &amp; Postmiles</b> – SCL 7.5-9.9, ALA 0.0 – 12.4 <b>Caltrans Projects – EA#</b> 04-4G0500		
<b>Lead Agency:</b> Caltrans				
<b>Contact Person</b> Emily Landin-Lowe		<b>Phone#</b> 510-286-5124	<b>Fax#</b>	<b>Email</b> Emily_landin-low@dot.ca.gov
<b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>				
<b>Categorical Exclusion (NEPA)</b>	X	<b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>
				<b>Other</b>
<b>Scheduled Date of Federal Action:</b> 04/20/2015				
<b>NEPA Delegation – Project Type</b> <i>(check appropriate box)</i>				
Exempt	Section 6004 – Categorical Exemption		Section 6005 – Non- Categorical Exemption	
<b>Current Programming Dates</b> <i>(as appropriate)</i>				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	Aug 2011	March 2015	Dec 2015	July 2017
<b>End</b>	March 2015	Dec 2016	March 2017	Dec 2018

## PM<sub>2.5</sub> Project Assessment Form for Interagency Consultation

### **Project Purpose and Need (Summary):** *(please be brief)*

#### *Purpose*

Recognizing the importance of I-680 as part of the Bay Area Express Lanes Network, and as a corridor for the movement of people and goods within Santa Clara and Alameda Counties, and between the San Francisco Bay Area and the Central Valley, the Alameda County Transportation Commission proposes a project that would:

- Increase the efficiency of the transportation system by optimizing capacity on northbound I-680 between SR 237 and SR 84 to accommodate current and future traffic demand.
- Implement the AB 2032 authorized express lanes and provide similar benefits for commuters using the southbound I-680 HOV/Express Lane by:
  - Extending the regional carpool lane system from SR 237 to SR 84 to improve travel time and travel reliability for all users, including HOV and transit users.
  - Optimizing freeway system management and traffic operations by making use of available unused capacity in the HOV lane.

#### *Need*

- The existing capacity of portions of northbound I-680 within the project limits is inadequate to accommodate existing and future travel demands. This results in recurring traffic congestion and travel delays during the afternoon commute hours. Significant traffic congestion is observed between Mission Boulevard (SR 262) and Vallecitos Road (SR 84) with travel delays exceeding 10 minutes per vehicle during a multiple-hour peak period. This level of congestion is expected to worsen as traffic volumes are expected to increase. Therefore, there is a need for providing additional roadway capacity and operational improvements to reduce congestion and delay.
- An HOV/Express Lane was recently constructed on the southbound side of this same corridor. Given that this corridor primarily serves commuters that tend to follow similar daily and weekly travel patterns, the experience with the southbound HOV/Express Lane indicates that there is a demand for this type of facility in the northbound direction.

### **Surrounding Land Use/Traffic Generators** *(especially effect on diesel traffic)*

I-680 is a north-south transportation corridor for interregional commercial, commuter, and recreational traffic connecting Santa Clara and Alameda Counties. Land uses along the I-680 corridor within the project limits include open space, residential, retail and commercial usage.

**Project Assessment Form for PM<sub>2.5</sub> Interagency Consultation**

**Brief summary of assumptions and methodology used for conducting analysis**

The AADT and truck percentages are taken from the Traffic Forecast for PM<sub>2.5</sub> Analysis memo prepared by Fehr & Peers.<sup>2</sup> The project forecasts were prepared using recent traffic and truck counts along the I-680 northbound corridor as well as model runs using the Alameda Countywide Travel Demand Model.

Two analysis years, along with the existing conditions, were evaluated.

Year 2012 represents the existing conditions

Year 2020 represents the possible opening year of the project.

Year 2040 represents the planning horizon for the project.

**Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

See Table 1

**RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

See Table 1

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<sup>2</sup> Memorandum from Julie Morgan, Fehr & Peers to Audrey Darnell, Circle Point – Dated August 3, 2012 *I-680 NB Express Lane: Traffic Information for PM<sub>2.5</sub> Project Assessment Form.*

**PM<sub>2.5</sub> Project Assessment Form for Interagency Consultation**

**Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

Not applicable; see above for highway facility

**RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

Not applicable; see above for highway facility

**Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses**

Not applicable; see above for highway facility

**RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses**

Not applicable; see above for highway facility

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

The results of the *Traffic Forecast Memo for the I-680 HOV/Express Lane Project* (August 2012) indicate that building the project would increase traffic volumes on I-680 by 9.5% in 2020 and 10% in 2040, with no degradation of the LOS. The truck volumes would increase by 2.5% in 2020 and 4.5% in 2040. The new HOV/express lane in the northbound direction would add capacity and reduce congestion. However, California Vehicle Code Section 21655(b) restricts large trucks from using HOV and express lanes, therefore truck volumes increase more slowly as a result of congestion relief in the general purpose lanes. The addition of an HOV/express lane on northbound I-680 would draw some traffic off parallel routes, including the arterial street system in Milpitas and Fremont and I-880.

**Project Assessment Form for PM<sub>2.5</sub> Interagency Consultation**

**Comments/Explanation/Details** *(please be brief)*

The proposed project is in a nonattainment area for federal PM<sub>2.5</sub> standards. Therefore, according to 40 CFR Part 93, a hotspot analysis is required for conformity purposes. However, the EPA does not require hotspot analyses, qualitative or quantitative, for projects that are not listed in 40 CFR Section 93.123(b)(1) as a project of air quality concern (POAQC). Five types of projects qualify as a POAQC. The following discussion evaluates whether the proposed project falls into any of these five POAQC categories.

The project should not be considered a POAQC for the following reasons:

1. It is not a new or expanded highway project that would have a significant number of or increase in the number of diesel vehicles (40 CFR Section 93.123 (b)(1)(i)).
  - The addition of an HOV/express lane will reduce congestion and improve traffic flow on the freeway (LOS E without the project and LOS D with the project) without significantly increasing diesel truck volumes. Therefore, the proposed project would help to reduce future PM<sub>2.5</sub> levels in the project vicinity.
  - The auxiliary lanes connecting on and off-ramps reduce friction between vehicles entering and exiting the freeway by providing a longer weaving section. This results in better traffic flow and improved safety. This will also help reduce future PM<sub>2.5</sub> levels.
2. The project is not likely to affect any intersections (40 CFR Section 93.123 (b)(1)(ii)).
3. The project does not include the construction of a new bus or rail terminal with a significant number of diesel vehicles congregating at a single location (40 CFR Section 93.123 (b)(1)(iii)).
4. The project does not expand an existing bus or rail terminal with significant increases in the number of diesel vehicles congregating at a single location (40 CFR Section 93.123 (b)(1)(iv)).
5. The project is not in or affecting locations, areas or categories of sites that are identified in the PM<sub>2.5</sub> applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation (40 CFR Section 93.123 (b)(1)(v)).

Therefore, the project meets the Clean Air Act requirements without any explicit hot-spot analysis. The project will not create a new or worsen an existing PM<sub>2.5</sub> violation.

**Table 1 - I-680 Northbound Express Lane Project**

Scenario	Year 2012	Year 2020		Year 2040	
	Existing	No Build	Build	No Build	Build
AADT	70,000	74,000	81,000	80,000	88,000
LOS	D	E	D	E	D
Truck AADT	3,800	4,000	4,100	4,400	4,600
% Trucks	5.4%	5.4%	5.1%	5.5%	5.2%





## MEMORANDUM

Date: August 3, 2012  
To: Audrey Darnell, CirclePoint  
From: Julie Morgan, Fehr & Peers  
**Subject: I-680 NB Express Lane: Traffic Information for PM2.5 Project Assessment Form**

*WC11-2855*

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At your request, we have developed the following information to support the PM2.5 Project Assessment Form for Interagency Consultation for the I-680 NB Express Lane project, sponsored by the Alameda County Transportation Commission. This information is intended for use only for the PM2.5 Project Assessment. More detailed traffic information will be produced as part of the Traffic Operations Analysis Report (TOAR) for this project, which is an ongoing effort.

The PM2.5 Project Assessment Form requires slightly different types of traffic information depending on whether the project is a highway/street project, or an interchange/intersection project. Given the nature of the I-680 NB Express Lane project, it would be considered a highway/street project. For that type of project, the form requires the following information, both for the opening year and the horizon year:

- Build and No Build LOS, AADT, % and number of trucks, and truck AADT

This information is provided in the table below for the subject facility, which is I-680 northbound between SR 237 and SR 84. It should be emphasized that this information is for the northbound direction of travel only, since that is the location of the proposed project. The information presented below is drawn from recent traffic and truck counts along the I-680 northbound corridor that were completed to support the Express Lane project, as well as model results from the Alameda Countywide Travel Demand Model.



**Traffic Information for PM2.5 Project Assessment Form**

**I-680 Northbound Express Lane Project**

Scenario	Year 2012	Year 2020		Year 2040	
	Existing	No Build	Build	No Build	Build
AADT	70,000	74,000	81,000	80,000	88,000
LOS	D	E	D	E	D
Truck AADT	3,800	4,000	4,100	4,400	4,600
% Trucks	5.4%	5.4%	5.1%	5.5%	5.2%
<p>Notes: Existing AADT taken from traffic counts conducted for I-680 NB Express Lane project; existing truck percentage taken from data from the I-680 NB truck scales located along the study corridor; daily LOS are based on AADT values and Florida DOT LOS thresholds for freeways in urbanized areas.</p>					