



**METROPOLITAN
TRANSPORTATION
COMMISSION**

Bay Area Metro Center
375 Beale Street, Suite 800
San Francisco, CA 94105
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Air Quality Conformity Task Force

Metropolitan Transportation Commission

Bay Area Metro Center

Mount Hamilton Conference Room

375 Beale Street, Suite 800

(Note: Visitors must check in with the receptionist on the 7th floor)

San Francisco, CA

Conference Call Number: Dial - **(415) 655-0002 (Access Code: 929 918 671)**

Participant ID is # **button**.

February 28, 2019

9:30 a.m. –11:00 a.m.

AGENDA

1. Welcome and Introductions
2. PM_{2.5} Project Conformity Interagency Consultations
 - a. Consultation to Determine Project of Air Quality Concern Status
 - i. I-680 Express Lanes from SR 84 to Alcosta Boulevard Project
 - b. Confirm Projects Are Exempt from PM_{2.5} Conformity
 - i. Arroyo de Laguna Bridge Scour project (Discussion)
 - ii. Projects Exempt Under 40 CFR 93.126 – Not of Air Quality Concern
3. Projects with Regional Air Quality Conformity Concerns
 - a. Review of the Regional Conformity Status for New and Revised Projects
 - 3a_Regional_AQ_Conformity_Review_022819.pdf
 - 3_Attachment-A_List_of_Proposed_New_Projects_022819.pdf
4. Consent Calendar
 - a. January 24, 2019 Air Quality Conformity Task Force Meeting Summary
5. Other Items

Next Meeting: March 28, 2019

MTC Staff Liaison: Harold Brazil hbrazil@mtc.ca.gov



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Memorandum

TO: Air Quality Conformity Task Force

DATE: February 14, 2019

FR: Harold Brazil

W. I.

RE: PM_{2.5} Project Conformity Interagency Consultation

The project sponsor representing the Alameda County Transportation Commission, seeks interagency consultation from the Air Quality Conformity Task Force (AQCTF) at today's meeting and the projects is as follows:

No.	Project Sponsor	Project Title
1	Alameda County Transportation Commission	I-680 Express Lanes from SR 84 to Alcosta Boulevard Project

2ai_I-680_Express_Lanes_SR84_to_Alcosta_Boulevard_Project_Assessment_Form.pdf
(for the I-680 Express Lanes from SR 84 to Alcosta Boulevard project)

MTC also requests the review and concurrence from the Task Force on projects which project sponsors have identified as exempt and likely not to be a POAQC. **2b_Exempt List 021419.pdf** lists exempt projects under 40 CFR 93.126

Application of Criteria for a Project of Air Quality Concern
Project Title: I-680 Express Lanes from SR 84 to Alcosta Boulevard Project
Project Summary for Air Quality Conformity Task Force Meeting: 2/28/19

Description

- Project would construct new High Occupancy Vehicle/express lanes (HOV/express lanes) on northbound and southbound I-680 from SR 84 (Vallecitos Road) in Alameda County to north of Alcosta Boulevard in Contra Costa County.
- Project would include:
 - Installation of electronic tolling equipment and signage;
 - Widening/reconstruction of pavement in median to accommodate HOV/express lanes;
 - Widening or modification of bridge structures to accommodate freeway widening; and
 - New and replacement retaining walls and sound walls.
- Project would close 9-mile gap between existing southbound and in-construction northbound HOV/express lanes south of SR 84, and existing northbound and southbound HOV/express lanes in the vicinity of Alcosta Boulevard.

Background

- Technical studies in preparation to support NEPA process for Initial Study/Environmental Assessment (IS/EA).
- Public review scheduled for November and December 2019.
- Seeking project-level air quality conformity determination by March 2019.

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?

- Project would not expand/increase capacity for diesel vehicles—large trucks restricted from using HOV/express lanes by California Vehicle Code Section 21655(b).
- Trucks percentage would be 4 percent with and without project.

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

- The project is not expected to adversely affect operations at local street intersections.

(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 PM₁₀ or PM_{2.5} implementation plan as site of violation?

- No state implementation plan for PM_{2.5}.
- Therefore, not identified in plan as an area of potential violation.

RTIP ID# (required) 17-10-0058

TIP ID# (required) ALA170009

Air Quality Conformity Task Force Consideration Date

2/28/19

Project Description (clearly describe project)

The project proposes to construct High Occupancy Vehicle/express lanes (HOV/express lanes) on northbound and southbound Interstate 680 (I-680) from State Route (SR) 84 (Vallecitos Road) in Alameda County to north of Alcosta Boulevard in Contra Costa County.

Figure 1 shows the location of the proposed project, which extends for approximately 9 miles along I-680 from post mile (PM) R10.6 to R21.9 in Alameda County and from PM R0.0 to R1.1 in Contra Costa County. The new HOV/express lanes would pass in or near the cities of Pleasanton, Dublin, and San Ramon, and the community of Sunol.

The project would consist of the following primary components:

- Addition of a new HOV/express lane in median of both the southbound and northbound directions of I-680 from SR 84 to Alcosta Boulevard;
- Installation of electronic tolling equipment and signage;
- Widening/reconstruction of pavement in the median to accommodate the HOV/express lanes;
- Widening or modification of bridge structures to accommodate freeway widening; and
- New and replacement retaining walls and sound walls.

The project does not include changes to the existing auxiliary lanes in the project limits.

The HOV/express lanes would connect with existing southbound and in-construction northbound HOV/express lanes south of SR 84, and the existing northbound and southbound HOV/express lanes in the vicinity of Alcosta Boulevard. An 8-inch white dashed line would allow traffic to enter and exit the HOV/express lane anywhere along the project corridor.

The project is anticipated to be constructed in two or more phases and represents the long-term vision for buildout of the HOV/express lane facility on I-680 from SR 84 to Alcosta Boulevard. Depending on the availability of funding, construction of the project or an initial project phase could begin in early 2023.

Type of Project: HOV/express lane gap closure

County	<i>Narrative Location/Route & Postmiles</i> On I-680 between south of SR 84 in Alameda County and north of Alcosta Boulevard in Contra Costa County (04-ALA-680 PM R10.6/R21.9, 04-CC-680 PM R0.0 to R1.1)
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Caltrans Projects – EA# 04-0Q3000

Lead Agency: Alameda County Transportation Commission

<i>Contact Person</i> Gary Sidhu	<i>Phone#</i> 510-208-7414	<i>Fax#</i>	<i>Email</i> gsidhu@alamedactc.org
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Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)

<i>Categorical Exclusion (NEPA)</i>	X	EA or Draft EIS	FONSI or Final EIS	PS&E or Construction	<i>Other</i>
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Scheduled Date of Federal Action: May 2020

NEPA Delegation – Project Type (check appropriate box)

	Section 326 – Categorical Exclusion	X	Section 327 – Non-Categorical Exclusion
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Current Programming Dates (as appropriate)

	PE/Environmental	ENG	ROW	CON
Start	2017	2020	2020	2023
End	2020	2022	2022	2025

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

The purpose of the project is to increase the efficiency of the transportation system within the project limits, improve travel time reliability for all users, optimize freeway system management and traffic operations, maintain consistency with California Streets and Highways Code Section 149.5 to implement an HOV/express lanes system in Alameda County, and close the 9-mile gap between existing or in-construction HOV/express lane segments.

The project is needed because high transportation demand leads to congestion and vehicle speeds below 35 mph on I-680 in the project area for approximately 10 hours each weekday. Future travel demand on I-680 will increase and continue to exceed the available capacity during peak periods, adversely affecting travel speeds and increasing the level and duration of congestion. In addition, the project is needed to optimize the effectiveness of the existing and in-construction HOV/express lane segments to the south and north. Upon project completion, I-680 would have continuous HOV/express lanes from SR 262 in Fremont to Livorna Road in Alamo in the northbound direction, and from Rudgear Road in Walnut Creek to SR 237 in Milpitas in the southbound direction.

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

The project area overlaps the counties of Alameda and Contra Costa, the unincorporated community of Sunol, and the cities of Pleasanton, Dublin, and San Ramon. Land uses adjacent to the project area consist of both urban/developed land and open space. From San Ramon to Pleasanton, land uses adjacent to the project area are mainly single-family residential and industrial. South of Pleasanton through the Sunol area, land uses adjacent to the project area are dominated by undeveloped land and open space. Other existing land uses adjacent to the project area include industrial, residential, public/semi-public, agricultural, and open space uses.

I-680 is part of the National Network under the Surface Transportation Assistance Act (STAA) and provides connections to other National Network routes (such as I-580). I-680 also provides connections to STAA Terminal Access Routes and California Legal Truck Routes such as SR 84.

The project would not result in changes to land use that would affect diesel truck traffic in the area.

Brief summary of assumptions and methodology used for conducting analysis

Data collection efforts were undertaken in late April and early May 2018 while local schools and community colleges were in session to determine existing AM and PM peak period traffic volumes, truck volumes and percentages, freeway bottleneck locations and queues, and queues on key local roadways within the study area. The project study area is in southeastern Alameda County and includes primarily I-680 in San Ramon, Dublin, Pleasanton, the community of Sunol, and unincorporated Alameda County. The study area is shown in **Figure 2**. The geographic area considered in this analysis extends beyond the project limits to capture the effects of the proposed project on the surrounding transportation system as well as the effects of traffic in the surrounding area on the proposed project.

Fehr & Peers obtained an extensive amount of ramp and mainline volume data based on traffic counts collected from the following data sources:

- Ramp counts from April/May 2018 using pneumatic tubes and video collection
- Wavetronix freeway mainline counts from April/May 2018
- Ramp, mainline and vehicle occupancy counts from the *I-680 Data Collection Summary Report* (Fehr & Peers, August 2017, data collected February/March 2017)
- Ramp volumes from the *SR 84 Expressway Widening and SR 84/I-680 Interchange Improvements Project Traffic Operations Analysis Report (TOAR)* (Fehr & Peers, approved May 2017)
- Mainline counts obtained from the Performance Measurement System (PeMS) database (2018)
- Ramp counts from the Caltrans Census database (2016) for a reasonability check of the ramp tube counts
- Ramp volumes from the *I-680 Northbound Express Lanes Project TOAR* (Fehr & Peers, approved October 2013)

Future traffic conditions were evaluated for an opening year of 2025 and a horizon year of 2045.

Annual average daily traffic (AADT) data are provided for five noncontiguous segments of I-680 in the study area, which represent general volumes trends in the corridor:

- Between Alcosta Boulevard and I-580
- Between I-580 and Stoneridge Drive
- Between Stoneridge Drive and Bernal Avenue
- Between Sunol Boulevard and Koopman Road
- Between Andrade Road and Calaveras Road

Assumptions

The project would not increase capacity at the study gateways, as discussed further under “Describe potential traffic redistribution effects of congestion relief.” As a result, there would be no AADT change between the No Build and Build scenarios. The project would reduce vehicle hours of delay (VHD) and reduce diversion of peak-period traffic to parallel arterials to avoid congestion on I-680, but the overall system demand at the gateways would remain constant.

Trucks represent between 3.1% and 7.9% of all traffic in the AM peak period and between 2.0% and 6.3% of all traffic in the PM peak period. Fehr & Peers amalgamated the AM and PM peak period truck percentages with traffic count data to arrive at a total daily truck percentage of 4%. The following truck mix was assumed based on field counts:

- 2-axle: 45%
- 3 or more axles: 55%

As noted above under “Surrounding Land Use/Traffic Generators,” the project would not result in changes to land use that would affect diesel truck traffic in the area. Therefore, the daily truck percentage is expected to be same with and without the project.

Source

Fehr & Peers. 2018. I-680 Express Lanes from State Route 84 to Alcosta Boulevard Traffic Operations Analysis Report. Prepared for Alameda CTC and Caltrans. January.

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

See **Attachment A**, at the end of this form, for Opening Year LOS.

Table 1. Opening Year (2025) AADT, % Trucks, and Truck AADT

I-680 Segment	AADT				Truck AADT/ % change
	No Build		Build		
	Total	Trucks (4%)	Total	Trucks (4%)	
Between Alcosta and I-580	227,000	9,080	227,000	9,080	0
Between I-580 and Stoneridge	187,000	7,480	187,000	7,480	0
Between Stoneridge and Bernal	172,000	6,880	172,000	6,880	0
Between Sunol and Koopman	163,000	6,520	163,000	6,520	0
Between Andrade and Calaveras	196,000	7,840	196,000	7,840	0

Source: Fehr & Peers, January 2019.

Table 2 summarizes changes in VHD with the project.

Table 2. Opening Year (2025) Vehicle Hours of Delay for All Drivers in the Study Area

Study Period	No Build	Build	VHD Change (%)
AM	8,050	4,410	45% reduction
PM	5,390	3,540	34% reduction

Notes: VHD is measured in hours and represents the combined delay of all origin-destination pairs in the study network. AM study period is 5 AM to 1 PM; PM study period is 2 PM to 9 PM.
Source: Fehr & Peers, January 2019.

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 **Attachment A**, at the end of this form, for Horizon Year LOS.

Table 3. Horizon Year (2045) AADT, % Trucks, and Truck AADT

I-680 Segment	AADT				Truck AADT/ % change
	No Build		Build		
	Total	Trucks (4%)	Total	Trucks (4%)	
Between Alcosta and I-580	290,000	11,600	290,000	11,600	0
Between I-580 and Stoneridge	231,000	9,240	231,000	9,240	0
Between Stoneridge and Bernal	212,000	8,480	212,000	8,480	0
Between Sunol and Koopman	200,000	8,000	200,000	8,000	0
Between Andrade and Calaveras	244,000	9,760	244,000	9,760	0

Table 4 summarizes changes in VHD with the project.

Table 4. Horizon Year (2045) Vehicle Hours of Delay for All Drivers in the Study Area

Study Period	No Build	Build	VHD Change (%)
AM	48,500	23,000	53% reduction
PM	51,500	39,500	23% reduction

Notes: VHD is measured in hours and represents the combined delay of all origin-destination pairs in the study network. AM study period is 5 AM to 1 PM; PM study period is 2 PM to 9 PM.
Source: Fehr & Peers, January 2019.

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

Not applicable

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

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

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

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

The project would add an HOV/express lane to each direction of I-680 between SR 84 and just north of Alcosta Boulevard. The additional capacity would alleviate peak-period congestion in the project area, which is expected to attract additional vehicles to I-680. However, the effect of the capacity increase would remain localized because the project would not increase capacity at the study gateways including:

- I-680 corridor south of the SR 84/I-680/Calaveras Road interchange and over the Sunol Grade;
- SR 84 west of I-680, including SR 84 in Sunol and SR 84 through Niles Canyon; and
- I-680 north of Bollinger Canyon Road.

The project would reduce the diversion of through trips to parallel arterials such as San Ramon Valley Boulevard, Foothill Road, and Pleasanton-Sunol Road west of I-680 and the SR 84 corridor and Sunol Boulevard, First Street, and Stanley Boulevard east of I-680. Accordingly, the Build scenario forecasts reflect a higher peak-period demand on the I-680 corridor within the project area, but the overall system demand at the gateways remains constant.

Comments/Explanation/Details (please be brief)

Under 40 CFR 93.123(b)(1), the following criteria are utilized to determine the potential for a proposed project to qualify as a Project of Air Quality Concern.

- (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;*

Although the project would add an HOV/express lane to each direction to I-680 within the project limits, the majority of diesel trucks are restricted from using either HOV or express lanes, even for passing, by California Vehicle Code Section 21655(b). The project would not add capacity for diesel vehicles on I-680, and trucks would comprise 4 percent of annual average daily traffic with and without the project. Therefore, the project would not result in a significant increase in the number of diesel vehicles. By providing HOV/express lanes, the project would improve congestion and reduce idling in the general purpose lanes that the trucks use. The project would not be considered a Project of Air Quality Concern under this criterion.

- (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;*

The project's level of service data is for the freeway rather than local intersections. Based on the overall improvement in levels of service shown in **Attachment A**, the project is not expected to adversely affect operations at local street intersections. As discussed under item (i) above, the project would not result in a significant increase in diesel vehicles. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.

- (iii) *New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;*

The proposed project would not implement a new bus or retail terminal or transfer point. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.

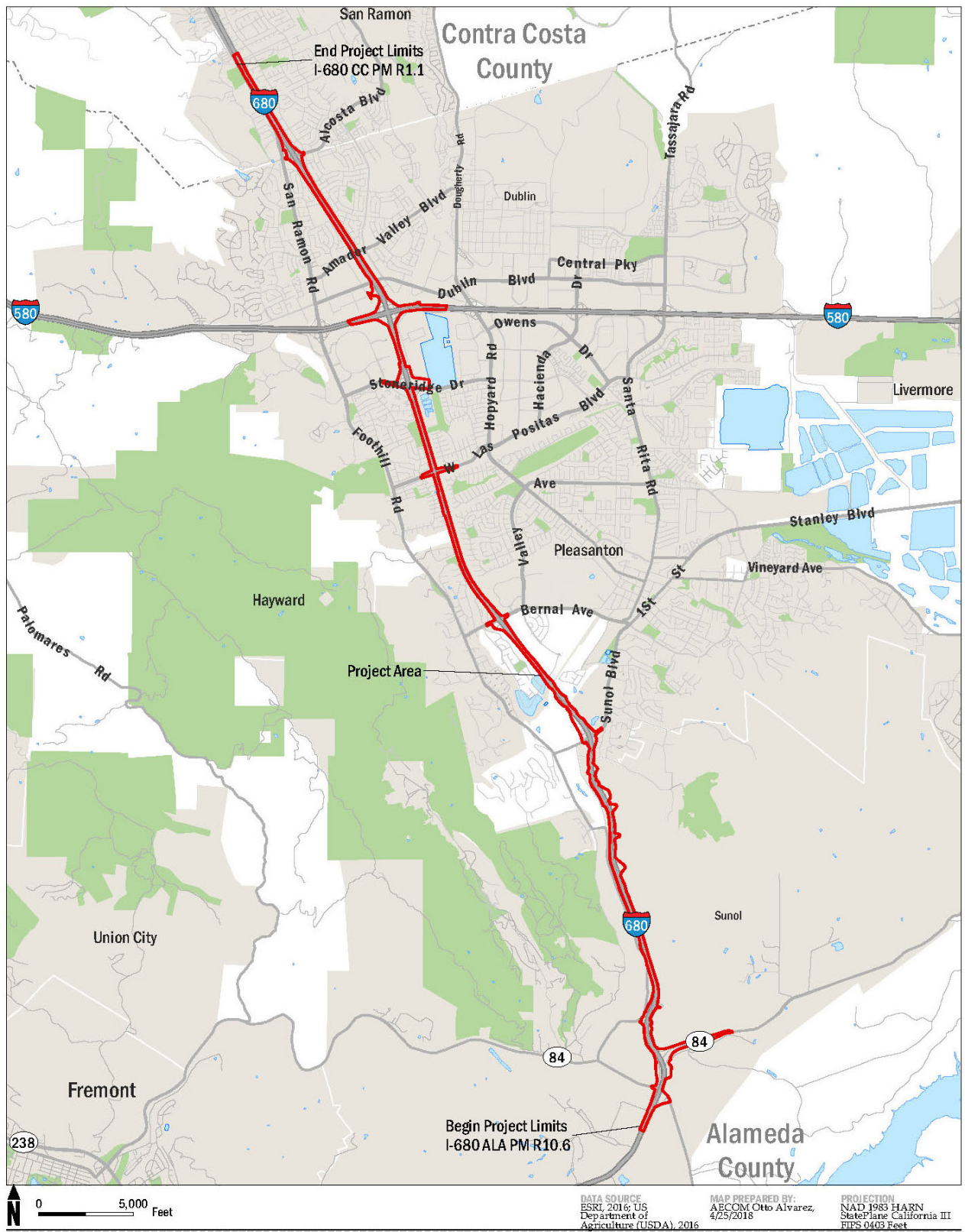
- (iv) *Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and*

The proposed project does not involve expansion of a bus or rail terminal or transfer point. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.

- (v) *Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.*

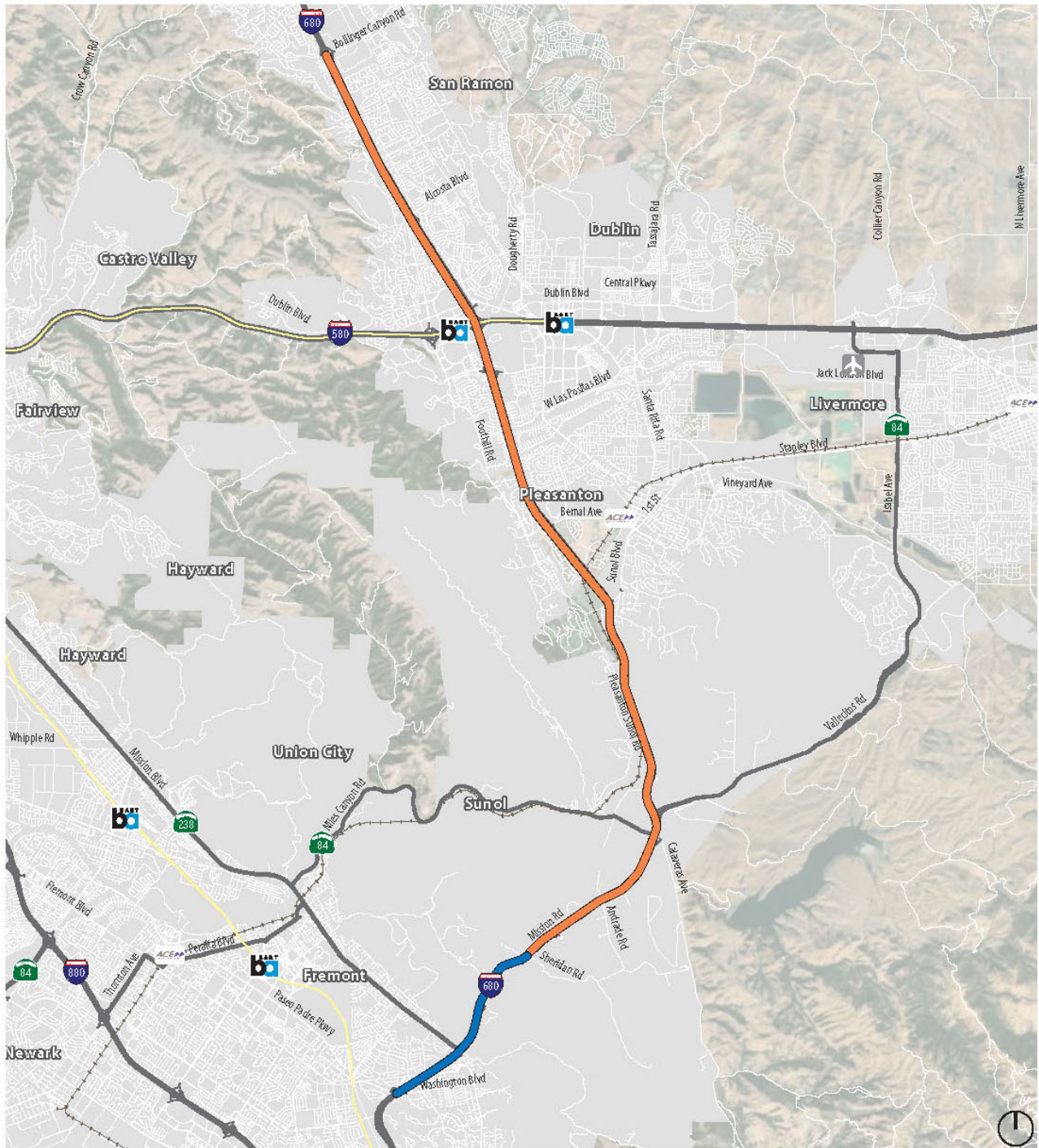
There is no state implementation plan for PM_{2.5}, and the proposed project is not in and would not affect a site of a PM₁₀ or PM_{2.5} air quality standard violation.

FIGURES



I-680 Express Lanes from State Route 84 to Alcosta Boulevard
Alameda and Contra Costa Counties

FIGURE 1
Project Area



LEGEND

- I-680 both Directions Study Area
- Northbound I-680 Only Study Area



WC17-3456_2-1_Study Area

Figure 2

Project Study Area

ATTACHMENT A
OPENING YEAR AND HORIZON YEAR LEVELS OF SERVICE

**TABLE A-1
YEAR 2025 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2025 No Project Conditions		Year 2025 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Southbound I-680 (Travel Direction: Down Table)						
Bollinger Canyon Road diagonal on-ramp	Merge	AM	28.8	D	26.8	C
		PM	64.8	F	61.1	F
Bollinger Canyon Road diagonal on-ramp to Alcosta Boulevard off-ramp	Basic	AM	27.4	D	26.7	D
		PM	38.1	E*	35.2	E*
Alcosta Boulevard off-ramp	Diverge	AM	30.5	D	29.1	D
		PM	32.5	D	35.1	E
Alcosta Boulevard off-ramp to Alcosta Boulevard hook on-ramp	Basic	AM	24.4	C	24.9	C
		PM	27.7	D	27.6	D
Alcosta Boulevard hook on-ramp	Merge	AM	25.4	C	25.5	C
		PM	29.5	D	27.6	C
Alcosta Boulevard diagonal on-ramp	Merge	AM	24.9	C	20.1	C
		PM	29.5	D	26.2	C
Alcosta Boulevard diagonal on-ramp to lane add	Basic	AM	31.5	D	21.9	C
		PM	29.3	D	23.1	C
Lane add to eastbound I-580/Dublin Boulevard off-ramp	Basic	AM	25.5	C	23.3	C
		PM	23.7	C	22.8	C
Eastbound I-580/Dublin Boulevard off-ramp	Diverge	AM	27.0	C	31.8	D
		PM	22.9	C	23.2	C
I-580 westbound off-ramp	Diverge	AM	16.1	B	15.5	B
		PM	42.0	E	16.7	B
I-580 westbound off-ramp to lane reduction	Basic	AM	15.6	B	12.9	B
		PM	121.3	F	15.7	B
Lane reduction to Dublin Boulevard on-ramp	Basic	AM	26.3	D	13.3	B
		PM	93.4	F	16.4	B
Dublin Boulevard on-ramp	Merge	AM	102.6	F	18.0	B
		PM	102.8	F	21.1	C
I-580 on-ramp to Stoneridge Drive off-ramp	Weave	AM	104.6	F	18.9	B
		PM	95.6	F	21.8	C
Stoneridge Drive off-ramp to Stoneridge Drive loop on-ramp	Basic	AM	101.6	F	18.4	C
		PM	82.7	F	21.1	C

**TABLE A-1
YEAR 2025 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2025 No Project Conditions		Year 2025 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Stoneridge Drive loop on-ramp	Merge	AM	108.7	F	21.5	C
		PM	94.5	F	48.8	F
Stoneridge Drive diagonal on-ramp	Merge	AM	105.8	F	22.1	C
		PM	66.2	F	62.8	F
Stoneridge Drive diagonal on-ramp to Bernal Avenue off-ramp	Basic	AM	86.3	F	21.4	C
		PM	30.6	E*	29.2	D
Bernal Avenue off-ramp	Diverge	AM	104.2	F	22.0	C
		PM	29.9	D	30.3	D
Bernal Avenue Off-ramp to Bernal Avenue On-ramp	Basic	AM	91.1	F	17.9	B
		PM	25.1	C	23.2	C
Bernal Avenue on-ramp	Merge	AM	93.1	F	22.2	C
		PM	25.2	C	25.7	C
Bernal Avenue On-ramp to Sunol Boulevard off-ramp	Basic	AM	77.2	F	21.0	C
		PM	27.8	D	25.8	C
Sunol Boulevard Off-Ramp	Diverge	AM	74.5	F	23.8	C
		PM	27.6	C	28.3	D
Sunol Boulevard Off-Ramp to Sunol Boulevard On-Ramp	Basic	AM	75.2	F	20.2	C
		PM	24.9	C	23.1	C
Sunol Boulevard On-Ramp	Merge	AM	62.7	F	26.5	C
		PM	26.0	C	25.8	C
Sunol Boulevard On-Ramp to Express Lane start	Basic	AM	33.3	E*	23.8	C
		PM	26.6	D	24.5	C
Express Lane start to Koopman Road	Basic	AM	28.9	D	22.8	C
		PM	26.6	D	24.5	C
Koopman Road off-ramp	Diverge	AM	31.8	D	24.5	C
		PM	25.9	C	26.4	C
Koopman Road off-ramp to Paloma Way (SR 84) off-ramp	Basic	AM	28.7	D	22.7	C
		PM	23.2	C	23.0	C
Paloma Way (SR 84) off-ramp	Diverge	AM	31.1	D	24.0	C
		PM	24.0	C	24.6	C
Paloma Way (SR 84) off-ramp to Southbound SR 84 connector merge	Basic	AM	26.1	D	21.7	C
		PM	21.9	C	21.9	C

**TABLE A-1
YEAR 2025 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2025 No Project Conditions		Year 2025 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Southbound SR 84 connector merge	Merge	AM	31.2	D	28.8	D
		PM	28.3	D	29.3	D
Southbound SR 84 connector to lane reduction	Basic	AM	34.4	D	28.4	D
		PM	29.7	D	29.5	D
Lane reduction to Paloma Way (SR 84) on-ramp	Basic	AM	34.6	D	31.3	D
		PM	28.6	D	29.5	D
Paloma Way (SR 84) on-ramp	Merge	AM	31.7	D	35.9	E
		PM	27.8	C	29.7	D
Paloma Way (SR 84) on-ramp to Andrade Road off-ramp	Basic	AM	30.5	D	33.2	D
		PM	27.0	D	28.9	D
Andrade Road off-ramp	Diverge	AM	29.2	D	30.5	D
		PM	26.5	C	28.2	D
Andrade Road off-ramp to Andrade Road on-ramp	Basic	AM	27.9	D	29.1	D
		PM	25.6	C	27.6	D
Andrade Road on-ramp	Merge	AM	26.8	D	28.0	D
		PM	21.7	C	27.0	D
Andrade Road on-ramp to Sheridan Road on-ramp	Basic	AM	23.1	C	24.4	C
		PM	18.2	C	23.0	C
Sheridan Road on-ramp	Merge	AM	20.4	C	21.0	C
		PM	20.0	B	18.5	B
Northbound I-680 (Travel Direction: Down Table)						
Mission Boulevard (SR 238) off-ramp	Diverge	AM	21.7	C	21.7	C
		PM	20.0	B	19.9	B
Mission Boulevard (SR 238) off-ramp to Mission Boulevard (SR 238) on-ramp	Basic	AM	20.6	C	20.6	C
		PM	19.4	C	19.4	C
Mission Boulevard (SR 238) on-ramp	Basic ²	AM	19.4	C	19.4	C
		PM	20.6	C	20.7	C
Mission Boulevard (SR 238) on-ramp to Vargas Road off-ramp	Basic	AM	19.4	C	19.4	C
		PM	20.6	C	20.7	C
Vargas Road off-ramp	Diverge	AM	16.4	B	16.1	B
		PM	18.2	B	18.1	B
Vargas Road off-ramp to Vargas Road on-ramp	Basic	AM	17.3	B	17.3	B
		PM	18.8	C	19.1	C

**TABLE A-1
YEAR 2025 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2025 No Project Conditions		Year 2025 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Vargas Road on-ramp	Merge	AM	16.6	B	16.6	B
		PM	18.9	B	19.1	B
Vargas Road on-ramp to Sheridan Road off-ramp	Basic	AM	17.2	B	16.5	B
		PM	19.1	C	19.4	C
Sheridan Road off-ramp	Diverge	AM	17.1	B	16.9	B
		PM	19.3	B	19.8	B
Sheridan Road off-ramp to Truck Scales off-ramp	Basic	AM	17.1	B	16.7	B
		PM	19.0	C	19.2	C
Truck Scales off-ramp	Diverge	AM	18.3	B	18.0	B
		PM	19.9	B	19.7	B
Truck Scales off-ramp to Lane Reduction	Basic	AM	20.9	C	20.5	C
		PM	22.3	C	22.1	C
Lane Reduction to Truck Scales on-ramp	Basic	AM	20.9	C	20.6	C
		PM	22.4	C	22.3	C
Truck Scales on-ramp	Merge	AM	27.3	C	25.3	C
		PM	25.3	C	25.9	C
Andrade Road off-ramp	Diverge	AM	24.0	C	25.3	C
		PM	24.7	C	24.5	C
Andrade Road off-ramp to Andrade Road on-ramp	Basic	AM	21.5	C	21.0	C
		PM	22.7	C	22.7	C
Andrade Road on-ramp	Merge	AM	22.7	C	22.7	C
		PM	25.4	C	29.1	D
Andrade Road on-ramp to Calaveras Road (SR 84) off-ramp	Basic	AM	22.5	C	22.6	C
		PM	25.3	C	25.1	C
Calaveras Road (SR 84) off-ramp	Diverge	AM	25.3	C	25.5	C
		PM	26.5	C	26.5	C
Calaveras Road (SR 84) off-ramp to Northbound SR 84 connector	Basic	AM	22.5	C	22.8	C
		PM	25.0	C	25.2	C
Northbound SR 84 connector to Southbound SR 84 connector merge	Basic	AM	22.3	C	17.5	B
		PM	20.3	C	18.7	C
Southbound SR 84 connector merge	Merge	AM	22.0	C	18.7	B
		PM	25.9	C	20.1	C

**TABLE A-1
YEAR 2025 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2025 No Project Conditions		Year 2025 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Southbound SR 84 connector merge to Koopman Road on-ramp	Basic	AM	23.2	C	18.6	C
		PM	24.3	C	19.7	C
Koopman Road on-ramp	Merge	AM	22.6	C	20.2	C
		PM	24.9	C	22.3	C
Koopman Road on-ramp to Sunol Boulevard off-ramp	Basic	AM	22.9	C	19.3	C
		PM	25.8	C	21.8	C
Sunol Boulevard off-ramp	Diverge	AM	22.9	C	20.6	C
		PM	26.6	C	23.9	C
Sunol Boulevard off-ramp to Sunol Boulevard on-ramp	Basic	AM	22.4	C	17.6	B
		PM	22.3	C	18.9	C
Sunol Boulevard on-ramp	Merge	AM	20.9	C	19.9	B
		PM	26.2	C	22.2	C
Sunol Boulevard on-ramp to Bernal Avenue off-ramp	Basic	AM	21.6	C	19.4	C
		PM	26.2	D	22.0	C
Bernal Avenue off-ramp	Diverge	AM	23.3	C	20.8	C
		PM	26.1	C	23.5	C
Bernal Avenue off-ramp to Bernal Avenue on-ramp	Basic	AM	22.8	C	18.1	C
		PM	24.0	C	19.8	C
Bernal Avenue on-ramp	Merge	AM	21.4	C	20.4	C
		PM	44.9	F	25.0	C
Bernal Avenue on-ramp to Stoneridge Drive off-ramp	Basic	AM	22.2	C	20.5	C
		PM	71.8	F	24.7	C
Stoneridge Drive off-ramp	Diverge	AM	23.4	C	23.4	C
		PM	74.8	F	30.1	D
Stoneridge Drive off-ramp to Stoneridge Drive loop on-ramp	Basic	AM	24.7	C	18.2	C
		PM	76.5	F	28.5	D
Stoneridge Drive loop on-ramp	Basic ²	AM	20.5	C	18.2	C
		PM	77.7	F	52.6	F
Stoneridge Drive diagonal on-ramp to eastbound I-580 off-ramp	Weave	AM	20.5	C	21.7	C
		PM	72.7	E*	72.2	E*
Westbound I-580 off-ramp	Diverge	AM	27.1	C	20.4	C
		PM	24.8	C	22.3	C
Westbound I-580 off-ramp to lane reduction	Basic	AM	22.0	C	21.5	C
		PM	30.5	D	23.0	C

**TABLE A-1
YEAR 2025 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2025 No Project Conditions		Year 2025 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Lane reduction to eastbound I-580 on-ramp	Basic	AM PM	25.9 30.3	C D	21.4 24.1	C C
Eastbound I-580 on-ramp	Basic ²	AM PM	25.8 24.8	C C	21.7 24.5	C C
Westbound I-580 on-ramp	Basic ²	AM PM	22.7 17.6	C B	17.7 19.8	B C
Dublin Boulevard on-ramp	Merge	AM PM	13.9 25.9	B C	17.3 19.3	B B
Dublin Boulevard on-ramp to Alcosta Boulevard off-ramp	Basic	AM PM	17.5 33.5	B D	20.7 24.7	C C
Alcosta Boulevard off-ramp	Diverge	AM PM	21.3 29.0	C D	22.7 28.1	C D
Alcosta Boulevard off-ramp to Alcosta Boulevard on-ramp	Basic	AM PM	23.4 24.1	C C	23.9 24.7	C C
Alcosta Boulevard on-ramp	Merge	AM PM	24.2 27.3	C C	35.6 28.8	E D
Alcosta Boulevard on-ramp to Bollinger Canyon Road off-ramp	Basic	AM PM	36.7 26.8	E D	33.5 28.7	D D
Bollinger Canyon Road off-ramp	Diverge	AM PM	34.6 23.6	D C	25.5 24.4	C C

Notes:

LOS E* Indicates bottleneck locations, which operate at LOS E by definition.

Bold indicates failing operations (LOS F).

1. AM 30-minute peak period is 7:30 AM to 8:00 AM. PM 30-minute peak period is 5:30 PM to 6:00 PM.

2. On-ramp includes a lane add, so the segment operates as a basic segment.

Source: Fehr & Peers, January 2019

**TABLE A-2
YEAR 2045 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2045 No Project Conditions		Year 2045 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Southbound I-680 (Travel Direction: Down Table)						
Bollinger Canyon Road diagonal on-ramp	Merge	AM	126.1	F	35.2	E
		PM	84.5	F	60.4	F
Bollinger Canyon Road diagonal on-ramp to Alcosta Boulevard off-ramp	Basic	AM	93.3	F	32.9	D
		PM	64.1	F	35.5	E*
Alcosta Boulevard off-ramp	Diverge	AM	122.0	F	34.5	D
		PM	74.8	F	31.0	D
Alcosta Boulevard off-ramp to Alcosta Boulevard hook on-ramp	Basic	AM	112.3	F	31.4	D
		PM	77.4	F	28.8	D
Alcosta Boulevard hook on-ramp	Merge	AM	119.5	F	36.3	E
		PM	113.4	F	28.4	D
Alcosta Boulevard diagonal on-ramp	Merge	AM	92.4	F	39.9	E
		PM	96.9	F	26.5	C
Alcosta Boulevard diagonal on-ramp to lane add	Basic	AM	91.1	F	43.8	E
		PM	74.3	F	25.1	C
Lane add to eastbound I-580/Dublin Boulevard off-ramp	Basic	AM	86.0	F	42.7	E
		PM	73.7	F	23.3	C
Eastbound I-580/Dublin Boulevard off-ramp	Diverge	AM	82.5	F	42.1	E
		PM	55.5	F	23.2	C
I-580 westbound off-ramp	Diverge	AM	78.9	F	16.2	B
		PM	86.0	F	18.4	B
I-580 westbound off-ramp to lane reduction	Basic	AM	135.7	F	15.0	B
		PM	127.5	F	16.9	B
Lane reduction to Dublin Boulevard on-ramp	Basic	AM	111.3	F	15.3	B
		PM	100.9	F	17.4	B
Dublin Boulevard on-ramp	Merge	AM	120.2	F	20.8	C
		PM	108.3	F	38.3	E
I-580 on-ramp to Stoneridge Drive off-ramp	Weave	AM	108.8	F	22.0	C
		PM	103.9	F	68.1	F
Stoneridge Drive off-ramp to Stoneridge Drive loop on-ramp	Basic	AM	102.4	F	20.7	C
		PM	85.7	F	72.9	F
Stoneridge Drive loop on-ramp	Merge	AM	110.8	F	24.5	C
		PM	102.2	F	99.4	F

**TABLE A-2
YEAR 2045 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2045 No Project Conditions		Year 2045 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Stoneridge Drive diagonal on-ramp	Merge	AM	105.8	F	25.6	C
		PM	68.3	F	67.2	F
Stoneridge Drive diagonal on-ramp to Bernal Avenue off-ramp	Basic	AM	86.7	F	23.7	C
		PM	30.2	E*	29.1	E*
Bernal Avenue off-ramp	Diverge	AM	105.0	F	24.5	C
		PM	29.3	D	29.8	D
Bernal Avenue Off-ramp to Bernal Avenue On-ramp	Basic	AM	91.3	F	22.0	C
		PM	25.2	C	23.0	C
Bernal Avenue on-ramp	Merge	AM	93.2	F	26.4	C
		PM	26.1	C	27.8	C
Bernal Avenue On-ramp to Sunol Boulevard off-ramp	Basic	AM	75.0	F	24.0	C
		PM	29.0	D	31.3	D
Sunol Boulevard Off-Ramp	Diverge	AM	73.2	F	25.1	C
		PM	31.8	D	38.1	E
Sunol Boulevard Off-Ramp to Sunol Boulevard On-Ramp	Basic	AM	74.0	F	33.0	D
		PM	24.8	C	22.7	C
Sunol Boulevard On-Ramp	Merge	AM	64.4	F	51.7	F
		PM	25.7	C	25.8	C
Sunol Boulevard On-Ramp to Express Lane start	Basic	AM	33.4	E*	28.1	D
		PM	26.0	D	24.2	C
Express Lane start to Koopman Road	Basic	AM	27.7	D	27.2	D
		PM	26.0	D	24.2	C
Koopman Road off-ramp	Diverge	AM	30.4	D	29.1	D
		PM	25.5	C	26.1	C
Koopman Road off-ramp to Paloma Way (SR 84) off-ramp	Basic	AM	27.2	D	27.1	D
		PM	22.7	C	22.5	C
Paloma Way (SR 84) off-ramp	Diverge	AM	29.4	D	29.3	D
		PM	23.4	C	24.3	C
Paloma Way (SR 84) off-ramp to Southbound SR 84 connector merge	Basic	AM	24.0	C	73.8	F
		PM	20.9	C	21.4	C
Southbound SR 84 connector merge	Merge	AM	28.5	D	92.3	F
		PM	30.7	D	35.4	E

**TABLE A-2
YEAR 2045 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2045 No Project Conditions		Year 2045 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Southbound SR 84 connector to lane reduction	Basic	AM	30.3	D	77.4	F
		PM	32.5	D	39.6	E
Lane reduction to Paloma Way (SR 84) on-ramp	Basic	AM	34.3	D	76.7	F
		PM	32.6	D	39.6	E
Paloma Way (SR 84) on-ramp	Merge	AM	36.2	E	51.6	F
		PM	31.3	D	40.5	E
Paloma Way (SR 84) on-ramp to Andrade Road off-ramp	Basic	AM	33.4	D	42.2	E*
		PM	30.1	D	37.4	E
Andrade Road off-ramp	Diverge	AM	30.7	D	32.7	D
		PM	27.2	C	34.3	D
Andrade Road off-ramp to Andrade Road on-ramp	Basic	AM	28.3	D	31.2	D
		PM	25.5	C	29.0	D
Andrade Road on-ramp	Merge	AM	26.6	D	29.7	D
		PM	22.2	C	27.3	D
Andrade Road on-ramp to Sheridan Road on-ramp	Basic	AM	23.1	C	25.8	C
		PM	19.5	C	24.4	C
Sheridan Road on-ramp	Merge	AM	20.8	C	23.2	C
		PM	21.5	C	22.0	C
Northbound I-680 (Travel Direction: Down Table)						
Mission Boulevard (SR 238) off-ramp	Diverge	AM	22.6	C	23.7	C
		PM	75.4	F	78.0	F
Mission Boulevard (SR 238) off-ramp to Mission Boulevard (SR 238) on-ramp	Basic	AM	24.7	C	23.7	C
		PM	58.7	F	59.0	F
Mission Boulevard (SR 238) on-ramp	Basic ²	AM	20.7	C	22.6	C
		PM	74.9	F	76.0	F
Mission Boulevard (SR 238) on-ramp to Vargas Road off-ramp	Basic	AM	20.7	C	22.6	C
		PM	74.9	F	76.0	F
Vargas Road off-ramp	Diverge	AM	19.0	B	19.5	B
		PM	84.8	F	123.4	F
Vargas Road off-ramp to Vargas Road on-ramp	Basic	AM	21.0	C	21.7	C
		PM	65.9	F	95.7	F
Vargas Road on-ramp	Merge	AM	19.3	B	19.5	B
		PM	103.2	F	126.5	F

**TABLE A-2
YEAR 2045 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2045 No Project Conditions		Year 2045 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Vargas Road on-ramp to Sheridan Road off-ramp	Basic	AM PM	21.1 93.1	C F	21.8 96.2	C F
Sheridan Road off-ramp	Diverge	AM PM	19.6 120.4	B F	20.0 122.6	B F
Sheridan Road off-ramp to Truck Scales off-ramp	Basic	AM PM	22.4 68.6	C F	21.2 68.2	C F
Truck Scales off-ramp	Diverge	AM PM	26.1 88.0	C F	21.0 87.3	C F
Truck Scales off-ramp to Lane Reduction	Basic	AM PM	25.3 79.1	C F	30.4 79.2	D F
Lane Reduction to Truck Scales on-ramp	Basic	AM PM	24.2 82.1	C F	34.5 81.3	D F
Truck Scales on-ramp	Merge	AM PM	28.1 93.0	D F	41.8 90.7	E F
Andrade Road off-ramp	Diverge	AM PM	25.7 84.5	C F	26.4 81.9	C F
Andrade Road off-ramp to Andrade Road on-ramp	Basic	AM PM	25.1 70.8	C F	26.1 68.7	D F
Andrade Road on-ramp	Merge	AM PM	31.9 72.0	D F	27.6 67.6	C F
Andrade Road on-ramp to Calaveras Road (SR 84) off-ramp	Basic	AM PM	29.4 45.2	D F	33.1 27.6	D E*
Calaveras Road (SR 84) off-ramp	Diverge	AM PM	32.5 51.8	D F	39.9 28.9	E D
Calaveras Road (SR 84) off-ramp to Northbound SR 84 connector	Basic	AM PM	27.5 49.7	D F	28.5 27.4	D D
Northbound SR 84 connector to Southbound SR 84 connector merge	Basic	AM PM	28.5 84.3	D F	19.8 22.1	C C
Southbound SR 84 connector merge	Merge	AM PM	30.3 85.5	D F	19.7 21.3	B C
Southbound SR 84 connector merge to Koopman Road on-ramp	Basic	AM PM	34.4 99.5	D F	20.9 21.2	C C

**TABLE A-2
YEAR 2045 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2045 No Project Conditions		Year 2045 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Koopman Road on-ramp	Merge	AM PM	27.3 101.7	C F	21.6 23.1	C C
Koopman Road on-ramp to Sunol Boulevard off-ramp	Basic	AM PM	33.2 95.8	D F	21.6 23.4	C C
Sunol Boulevard off-ramp	Diverge	AM PM	28.6 102.8	D F	22.7 25.2	C C
Sunol Boulevard off-ramp to Sunol Boulevard on-ramp	Basic	AM PM	29.7 113.8	D F	18.6 18.9	C C
Sunol Boulevard on-ramp	Merge	AM PM	24.0 96.3	C F	20.9 20.8	C C
Sunol Boulevard on-ramp to Bernal Avenue off-ramp	Basic	AM PM	25.3 80.3	C F	22.4 21.9	C C
Bernal Avenue off-ramp	Diverge	AM PM	27.6 87.7	C F	23.0 22.3	C C
Bernal Avenue off-ramp to Bernal Avenue on-ramp	Basic	AM PM	26.1 89.6	D F	21.1 20.4	C C
Bernal Avenue on-ramp	Merge	AM PM	25.0 87.6	C F	23.9 40.4	C E
Bernal Avenue on-ramp to Stoneridge Drive off-ramp	Basic	AM PM	27.2 84.4	D F	23.9 73.2	C F
Stoneridge Drive off-ramp	Diverge	AM PM	28.2 86.8	D F	28.3 82.9	D F
Stoneridge Drive off-ramp to Stoneridge Drive loop on-ramp	Basic	AM PM	28.3 82.5	D F	19.4 57.6	C F
Stoneridge Drive loop on-ramp	Basic ²	AM PM	24.7 105.9	C F	19.8 85.2	C F
Stoneridge Drive diagonal on-ramp to eastbound I-580 off-ramp	Weave	AM PM	34.4 88.2	D E*	18.8 84.9	B E*
Westbound I-580 off-ramp	Diverge	AM PM	62.9 42.1	F E	28.2 42.5	D E
Westbound I-580 off-ramp to lane reduction	Basic	AM PM	62.7 44.1	F E	28.4 31.9	D D
Lane reduction to eastbound I-580 on-ramp	Basic	AM PM	65.8 44.5	F E	30.2 30.6	D D

**TABLE A-2
YEAR 2045 FREEWAY OPERATIONS
GLOBAL STUDY AREA PEAK 30-MINUTES**

Segment	Segment Type	Peak Period ¹	Year 2045 No Project Conditions		Year 2045 Plus Project Conditions	
			Density (pc/mi/lane)	LOS	Density (pc/mi/lane)	LOS
Eastbound I-580 on-ramp	Basic ²	AM	47.3	F	36.9	E
		PM	27.3	D	26.9	D
Westbound I-580 on-ramp	Basic ²	AM	47.0	F	37.0	E
		PM	22.6	C	30.8	D
Dublin Boulevard on-ramp	Merge	AM	47.9	F	40.1	E
		PM	26.3	C	23.3	C
Dublin Boulevard on-ramp to Alcosta Boulevard off-ramp	Basic	AM	53.7	F	50.6	F
		PM	34.0	D	28.9	D
Alcosta Boulevard off-ramp	Diverge	AM	49.8	F	58.9	F
		PM	39.4	E	41.8	E
Alcosta Boulevard off-ramp to Alcosta Boulevard on-ramp	Basic	AM	57.8	F	63.5	F
		PM	32.9	D	36.0	E
Alcosta Boulevard on-ramp	Merge	AM	62.7	F	58.1	F
		PM	29.6	D	31.8	D
Alcosta Boulevard on-ramp to Bollinger Canyon Road off-ramp	Basic	AM	59.2	E*	39.1	E*
		PM	30.5	D	36.8	E
Bollinger Canyon Road off-ramp	Diverge	AM	40.6	E	29.8	D
		PM	28.0	D	37.1	E

Notes:

LOS E* Indicates bottleneck locations, which operate at LOS E by definition.

Bold indicates failing operations

1. AM 30-minute peak period is 7:30 AM to 8:00 AM. PM 30-minute peak period is 5:30 PM to 6:00 PM.

2. On-ramp includes a lane add, so the segment operates as a basic segment.

Source: Fehr & Peers, January 2019



I-680 Express Lanes from State Route 84 to Acosta Boulevard Project

**Prepared for the Bay Area Air Quality
Conformity Task Force**

February 28, 2019

Presented by

Lynn McIntyre / AECOM

Alameda County Transportation Commission
August 24, 2017

Project Description

- Construct new HOV/express lanes in median of northbound and southbound I-680 from SR 84 (Vallecitos Road) to north of Alcosta Boulevard
- Project would
 - Install electronic tolling equipment and signage
 - Widen median pavement and bridge structures
 - Construct retaining walls and sound walls



Project Location



Purpose and Need

- Increase the efficiency of the transportation system
- Improve travel time reliability for all users
- Optimize freeway system management and traffic operations
- Maintain consistency with legislation to implement an HOV/express lanes system in Alameda County
- Close the 9-mile gap between existing or in-construction HOV/express lane segments to the south and north



I-680 HOV/Express Lanes

North of this project

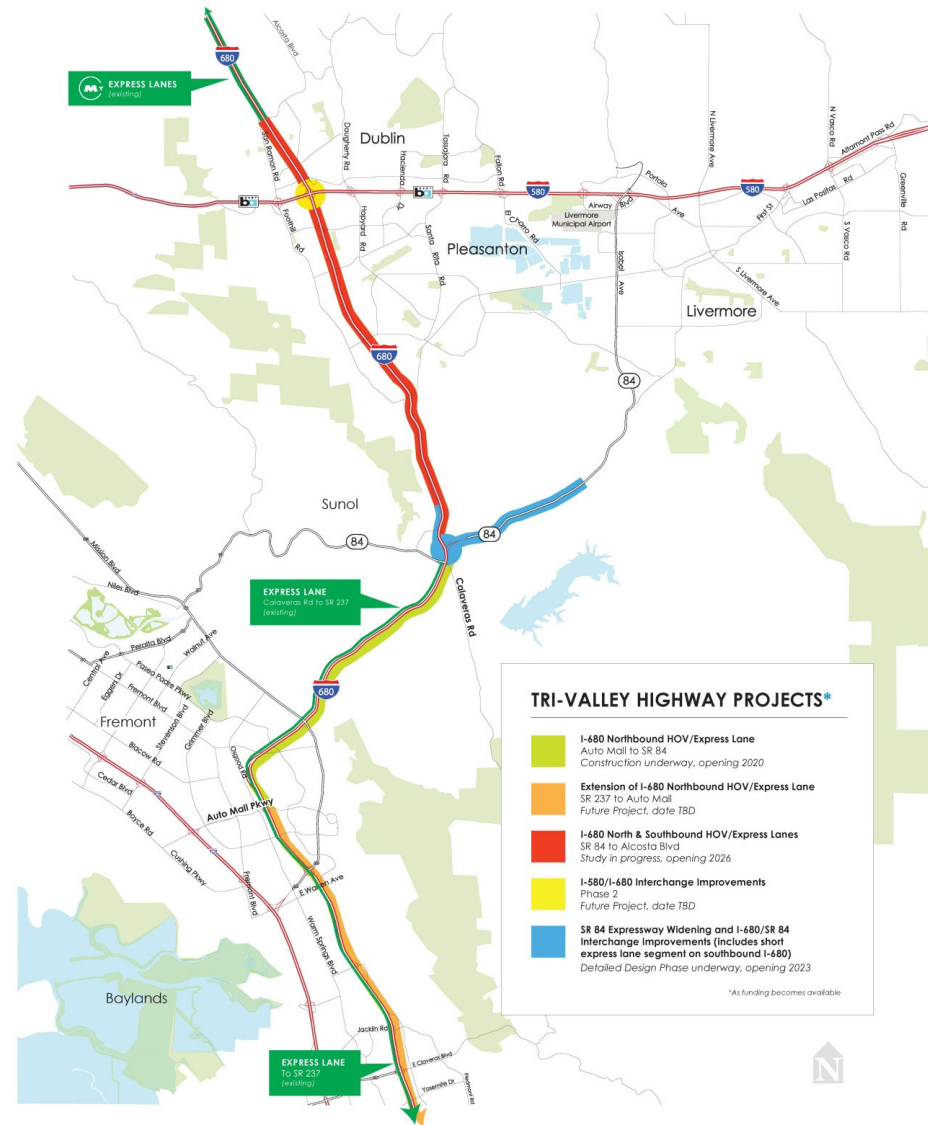
- Alcosta Blvd to Rudgear Rd (SB) and Livorna Rd (NB) – Open since 2017

South of this project

- South of SR 84 to SR 237 (SB) – Open since 2010
- SR 262 to SR 84 (NB) – Construction; to open 2020

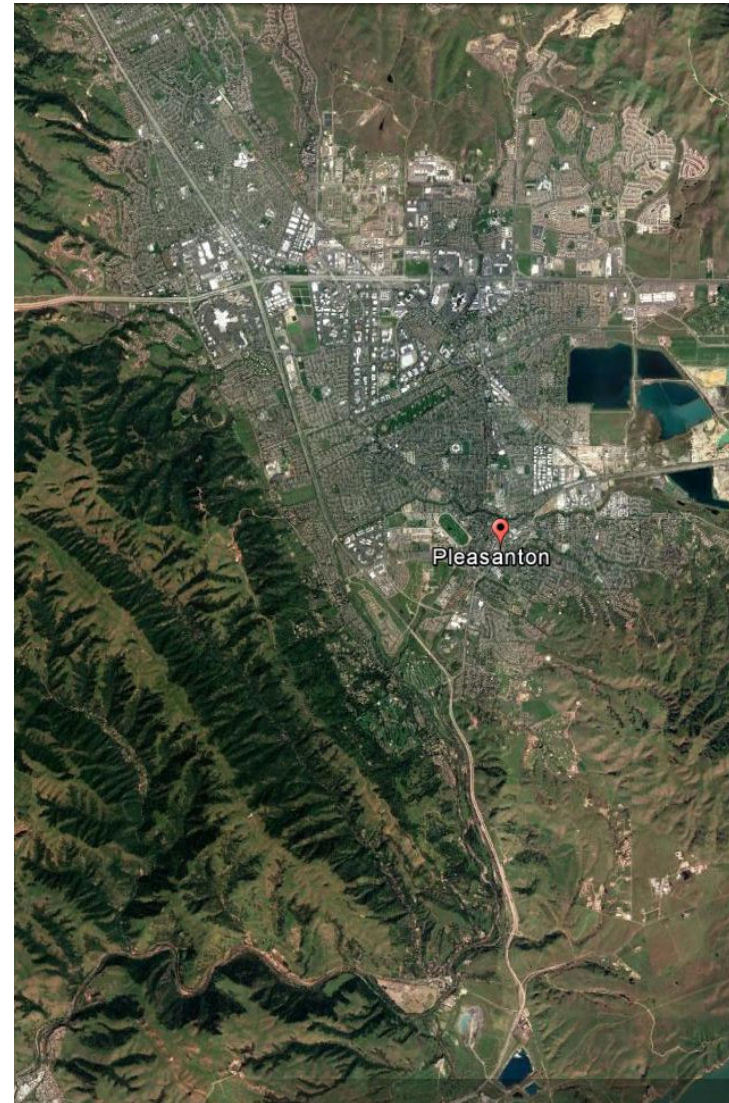
Future projects

- Marina Vista to Rudgear Rd (SB)
- Livorna Rd to Marina Vista to (NB)
- SR 262 to SR 237 (NB)



Land Uses

- San Ramon to Pleasanton – Residential, commercial, industrial
- South of Pleasanton through Sunol – Undeveloped land, open space
- Other land uses – Public/semi-public, agricultural



Imagery: Google Earth

Opening Year (2025) AADT, % Trucks, and Truck AADT

I-680 Segment	AADT				Truck AADT/ % change
	No Build		Build		
	Total	Trucks (4%)	Total	Trucks (4%)	
Between Alcosta and I-580	227,000	9,080	227,000	9,080	0
Between I-580 and Stoneridge	187,000	7,480	187,000	7,480	0
Between Stoneridge and Bernal	172,000	6,880	172,000	6,880	0
Between Sunol and Koopman	163,000	6,520	163,000	6,520	0
Between Andrade and Calaveras	196,000	7,840	196,000	7,840	0

Opening Year (2025) Vehicle Hours of Delay

Study Period	No Build	Build	VHD Change (%)
AM	8,050	4,410	45% reduction
PM	5,390	3,540	34% reduction

Horizon Year (2045) AADT, % Trucks, and Truck AADT

I-680 Segment	AADT				
	No Build		Build		Truck AADT/ % change
	Total	Trucks (4%)	Total	Trucks (4%)	
Between Alcosta and I-580	290,000	11,600	290,000	11,600	0
Between I-580 and Stoneridge	231,000	9,240	231,000	9,240	0
Between Stoneridge and Bernal	212,000	8,480	212,000	8,480	0
Between Sunol and Koopman	200,000	8,000	200,000	8,000	0
Between Andrade and Calaveras	244,000	9,760	244,000	9,760	0

Horizon Year (2045) Vehicle Hours of Delay

Study Period	No Build	Build	VHD Change (%)
AM	48,500	23,000	53% reduction
PM	51,500	39,500	23% reduction

The background is a solid blue color. It features several thin, white, intersecting lines that create a geometric pattern. One line runs diagonally from the top left towards the bottom right. Another line runs diagonally from the top right towards the bottom left. A third line runs horizontally across the top of the image. These lines intersect to form various triangular and quadrilateral shapes.

Questions & Answers



Thank You!

August 24, 2017

40 CFR 93.126 Exempt Projects List

County	TIP ID	Sponsor	Project Name	Project Description	Expanded Description	Project Type under 40 CFR 93.126
ALA	ALA190004	BART	Alameda Regional Access Phase II	Alameda: Running parallel to and south of Ralph Appezato Municipal Pkwy, between Main St and Constitution Way: Construct 0.8 miles of walking and biking trails, streetscaping and signal modification	Alameda: Running parallel to and south of Ralph Appezato Municipal Parkway, between Main Street and Constitution Way will total approximately 0.9 miles in length, and is divided into two distinct sub-segments. 1. Ralph Appezato Memorial Parkway (Main Street to Webster Street) in the 70 foot wide, City-owned abandoned railroad right-of-way adjacent to apartment complexes, schools, several businesses and a Boys and Girls Club: Construct separate walking and bicycling paths (asphalt concrete), plus a decomposed granite jogging path and the following additional features - a) Connector trails to at least two intersecting streets; Fifth Street and West Campus Drive, b) Pedestrian, bicycle, and ADA improvements, as well as signage at intersecting streets, c) New hardscaped, landscaped plazas at each end; Main Street and Webster Street, d) Trees, shrubs, bioretention and self-retaining areas, w/ landscaping and urban runoff control, and e) Traffic signal modifications at Fifth Street and Constitution Way. Note - This section includes significant earthwork in the excavation (or relocation and 'capping') of contaminated soils, creating the subgrade for the bicycle and pedestrian paths, with the placement of a soil cap over the majority of the site. This project is part of the City of Alameda's overall Cross Alameda Trail (CAT) project, which is envisioned as a premiere crosstown, low-stress four-mile bicycling and walking corridor that will connect the west side of the island to the east, from the former Naval Air Base to the Miller-Sweeney (Fruitvale) Bridge. The CAT is being constructed in segments.	Air Quality - Bicycle and pedestrian facilities
MRN	MRN190004	Marin County	Nicasio Valley Road Bridge 27C0098	Marin County : Nicasio Valley Road : Replace Bridge 27C0098	Replace bridge on Nicasio Valley Road at intersection with Lucas Valley Road Bridge 27C0098	Safety - Widening narrow pavements or reconstructing bridges (no additional travel lanes)
MRN	MRN190005	Marin County	Sir Francis Drake Blvd Bridge - 27C0104	Marin County: Sir Francis Drake Blvd in Pt Reyes Station (27C0104): Replace Bridge	Replace Sir Francis Drake Boulevard Bridge - 27C0104	Safety - Widening narrow pavements or reconstructing bridges (no additional travel lanes)
MRN	MRN190006	Marin County	Mount Lassen Drive Bridge 27C0135	Marin County : Mt Lassen Drive over Miller Creek in Marinwood-27C0135: Bridge Preventive Maintenance Program	Rehabilitate Bridge footings on Mt Lassen Drive bridge in Marinwood Bridge 27C0135	Safety - Widening narrow pavements or reconstructing bridges (no additional travel lanes)
SF	SF-190001	SFMTA	Woods Bus Facility Modernization	San Francisco: Woods Bus Facility: Modernize and upgrade a 43-year old facility that houses and maintains vehicles.	San Francisco: Woods Bus Facility: Modernize and upgrade a 43-year old facility that houses and maintains vehicles. Improvements include installing a new bus washing system and electric bus infrastructure and charging stations as the SFMTA prepares for fleet electrification. (Other State funds are SB1-SGR)	Mass Transit - Purchase of operating equipment for vehicles (e.g. radios, fareboxes, lifts, etc.)
SOL	SOL190004	Vallejo	Vallejo - Sacramento St Streetscape	Vallejo: Sacramento St from Tennessee St to Capitol St: Implement streetscape improvements	Vallejo: Sacramento St from Tennessee St to Capitol St: Implement a road diet, install a new designated Class 2 bike lane or bike sharrows, remove and replace asphalt concrete (AC) pavement, repair selected subgrade area, remove and replace sidewalk areas which presents safety hazards, Upgrade curb ramps to current ADA standards, restripe roadway.	Safety - Hazard elimination program



METROPOLITAN
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Memorandum

TO: Air Quality Conformity Task Force

DATE: February 28, 2019

FR: Adam Crenshaw

RE: Review of the Regional Conformity Status for New Projects

Staff has prepared the following information in an effort to streamline the review of the regional air quality conformity implications of projects that staff proposes to add into the 2019 TIP through current or future revisions. This item is for advisory purposes only. The inclusion of these projects and project changes in a proposed revision to the TIP is subject to Commission approval in the case of amendments and MTC's Executive Director or Deputy Executive Director in the case of administrative modifications. The final determination of the regional air quality conformity status of these projects will be made by the Federal Highway Administration, the Federal Transit Administration and the Environmental Protection Agency as part of their review of proposed final TIP amendments and by the Executive Director or Deputy Executive Director as part of their review for TIP administrative modifications.

Projects Staff is Proposing to Include in the 2019 TIP

Staff has received requests from sponsors to add one new individually listed project to the 2019 TIP. Attachment A includes a list of the remaining projects along with the regional air quality category that staff believes best describes the projects.

MTC staff is not seeking a determination on the status of these projects for project-level conformity purposes with this item.

Item 4 - Attachment A

County	TIP ID/FMS ID	Sponsor	Project Name	Project Description	Project Expanded Description	Project Type
Proposed New Individually Listed Projects for Regional Air Quality Conformity Status Review						
1 Solano	SOL190004	Vallejo	Vallejo - Sacramento St Streetscape	Vallejo: Sacramento St from Tennessee St to Capitol St: Implement streetscape improvements	Vallejo: Sacramento St from Tennessee St to Capitol St: Implement a road diet, install a new designated Class 2 bike lane or bike sharrows, remove and replace asphalt concrete (AC) pavement, repair selected subgrade area, remove and replace sidewalk areas which presents safety hazards, Upgrade curb ramps to current ADA standards, restripe roadway.	EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

**Air Quality Conformity Task Force
Summary Meeting Notes
January 24, 2019**

Participants:

Andrea Gordon – BAAQMD
Dick Fahey – Caltrans
Marilee Mortenson – Caltrans
Lucas Sanchez – Caltrans

Rodney Tavitas – Caltrans
Adam Crenshaw – MTC
Harold Brazil – MTC

- 1. Welcome and Self Introductions:** Harold Brazil (MTC) called the meeting to order at 9:35 am.
- 2. PM_{2.5} Project Conformity Interagency Consultations**
 - a. Confirm Projects Are Exempt from PM_{2.5} Conformity**
 - i. Projects Exempt Under 40 CFR 93.126 – Not of Air Quality Concern**

With BAAQMD, Caltrans and MTC representatives in attendance – the group discussed the **2b_Exempt List 01102019.pdf** list of exempt projects and had the following comments:

1. Made a “Project Type” change from Bike and Ped to Hazard elimination program for the Hayward - Main Street Complete Street project [TIP ID # ALA170065] &
2. Made a “Project Name” correction for the Fairfield - Electric Bus Fleet and Infrastructure project [TIP ID # SOL190003]

The group also discussed questions about the GL: Bridge Rehab and Reconstruction – SHOPP project’s [TIP ID# TBD] scope. After this meeting, additional information on the GL: Bridge Rehab and Reconstruction – SHOPP project was sent out to the Task Force, but a decision whether this project is exempt or it should go through consultation is still to be determined.

The group in attendance at the meeting also discussed the need to conduct and complete a new regional conformity analysis for the 2015 O3 standard before the August 3, 2019 deadline.

3. Projects with Regional Air Quality Conformity Concerns

a. Review of the Regional Conformity Status for New and Revised Projects

Projects Staff Proposing to Include in the 2019 TIP

Harold Brazil (MTC) stated that MTC staff had received requests from sponsors to add two new individually listed projects and 38 new grouped listed projects to the 2019 TIP. The group in attendance had no comments.

4. Consent Calendar

b. December 6, 2018 Air Quality Conformity Task Force Meeting Summary

Final Determination: With input from all members, the Task Force concluded that the consent calendar was approved.

5. Other Items

The group in attendance at the meeting also discussed the need to conduct and complete a new regional conformity analysis for the 2015 O3 standard before the August 3, 2019 deadline.