

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

### Project Title-I-580 Westbound HOV Lane Widening Project

### Project Summary for Air Quality Conformity Task Force Meeting: (Insert Date)

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#### Description

The project will construct a westbound HOV lane on Interstate 580 in Dublin Pleasanton and Livermore in Alameda County. The eastbound HOV lane is already in operation.

The Project will:

- Construct I-580 westbound HOV lane from Greenville Road in Livermore to Foothill Road / San Ramon Road in Dublin Pleasanton
- widen the inside and outside shoulders sufficiently to accommodate the HOV lane and allow for future conversion of the HOV lane to a HOT lane (conversion to HOT is not a part of this project)
- construct westbound auxiliary lanes from Vasco Road to First Street, First Street to North Livermore Avenue, North Livermore Avenue to Isabel Avenue; and from Airway Boulevard to Fallon Road;

#### Background

- NEPA process for Initial Study/Environmental Assessment (IS/EA) completed 10/16/2009
- Plans, Specifications and Estimate nearing completion and RTL milestone scheduled for February 29, 2012.
- Seeking PM 2.5 conformity determination on or before February 29, 2012 to allow FHWA to approve the project Right of Way Certification and to allow CTC to allocate SHOPP funds
- Schedule based on CMAA Bond Funding allocation deadline

#### 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?*

- The project would not add capacity for diesel vehicles. I-580 WB in the project limits has four mixed-flow lanes of traffic with auxiliary lanes. The project will construct an HOV lane in the WB direction from Greenville to Foothill/San Ramon and construct westbound auxiliary lanes at various locations. The majority of diesel trucks are restricted from using HOV lanes, even for passing, by California Vehicle Code Section 21655(b).

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

- The Project does not affect any intersections (HOV Lane Only)
- 

*(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?*

There is no state implementation plan for PM<sub>2.5</sub>, and the project area is therefore not identified in an implementation plan as an area of potential violation (40 CFR Section 93.123(b)(1)(v)).

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

<b>RTIP ID#</b> <i>(required)</i> 230665				
<b>TIP ID#</b> <i>(required)</i> ALA070018				
<b>Air Quality Conformity Task Force Consideration Date</b> 2/23/2012				
<p><b>Project Description</b> <i>(clearly describe project)</i>                  The California Department of Transportation (Department), in cooperation with the Alameda County Transportation Commission (Alameda CTC), proposes to widen westbound Interstate 580 (I-580) to provide a westbound High Occupancy Vehicle (HOV) lane. The project limits begin west of the Greenville Road undercrossing (PM R8.3) and end just west of the San Ramon Road/Foothill Road overcrossing (PM R21.4), in eastern Alameda County. The proposed project would reduce congestion and travel delay by providing a westbound HOV lane within the project limits.</p> <p>In addition to providing a westbound HOV lane, the project would rehabilitate the existing pavement, construct westbound auxiliary lanes from Vasco Road to First Street, First Street to North Livermore Avenue, North Livermore Avenue to Isabel Avenue and Airway Boulevard to Fallon Road, and HOV preferential lanes on the eastbound and westbound on-ramps at Greenville Road, Vasco Road, First Street and North Livermore Avenue Interchanges, and the westbound on-ramp at Airway Boulevard.</p>				
<p><b>Type of Project:</b> Change to existing State highway  <i>Pick one project type:</i> 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 intermodal facility/terminal/transfer point, Truck weight/inspection station</p>				
<b>County</b> Alameda	<b>Narrative Location/Route &amp; Postmiles On westbound Interstate 580, from east of Greenville Road to Foothill Road/San Ramon Road (Post Miles R8.4 to 21.6)</b> <b>Caltrans Projects – EA#s 04-2908C and 04-2908E (Split from 04-29082)</b>			
<b>Lead Agency:</b>				
<b>Contact Person</b> Stephen Haas	<b>Phone#</b> (510) 208-7427	<b>Fax#</b> (510) 836-2185	<b>Email</b> shaas@alamedactc.org	
<b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>				
<input type="checkbox"/> <b>Categorical Exclusion (NEPA)</b>	<input type="checkbox"/> <b>EA or Draft EIS</b>	<input type="checkbox"/> <b>FONSI or Final EIS</b>	<input checked="" type="checkbox"/> <b>PS&amp;E or Construction</b>	<input checked="" type="checkbox"/> <b>Other (R/W Cert)</b>
<b>Scheduled Date of Federal Action:</b> 2/29/2012				
<b>NEPA Delegation – Project Type</b> <i>(check appropriate box)</i>				
<input type="checkbox"/> <b>Exempt</b>	<input type="checkbox"/> <b>Section 6004 – Categorical Exemption</b>	<input checked="" type="checkbox"/> <b>Section 6005 – Non-Categorical Exemption</b>		
<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>	07/2007	06/2008	04/2008	07/2012
<b>End</b>	10/2009	03/2012	03/2012	11/2014

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

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

The I-580 Westbound HOV Lane Project would:

- **Reduce westbound peak period congestion and delay** by providing a westbound HOV lane for carpool and transit riders. Auxiliary lanes would improve highway operations by taking vehicles on and off movements out of the mainline through traffic lanes.
- **Encourage use of high-occupancy vehicles and transit** by providing carpools and transit with a distinct time/speed advantage over single-occupant vehicles. Providing an incentive for carpools and transit services would encourage single-occupant vehicle drivers to form carpools and encourage ridership on mass transit. This would subsequently reduce the number of single occupant vehicles on the mainline through traffic lanes.
- **Support regional air quality attainment goals** by reducing the numbers of automobiles in use and idling in traffic with related reductions in vehicle hours traveled and vehicle miles of travel (VHT and VMT) particularly during the westbound morning peak period when air pollutants accumulate.
- **Improve safety for motorists and Caltrans maintenance workers** by providing adequate inside and outside shoulders, where possible, allowing for refuge area for disable vehicles, improving accessibility for the California Highway Patrol (CHP), emergency and maintenance vehicles. Standard shoulders would also provide a buffer space for maintenance workers from moving traffic.

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

The project area is in the cities of Dublin, Pleasanton, and Livermore in Alameda County.

I-580 in the project limits is bordered by commercial, industrial, open space, and residential land uses. The project would not change land uses in any way that would result in additional diesel truck traffic to or from the study area

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

**Brief summary of assumptions and methodology used for conducting analysis** *(please keep this concise – specifics may include date of when traffic counts were conducted, studies where truck percentages were derived)*

The Alameda Countywide Travel Demand Model developed by the Alameda County Congestion Management Agency was used to develop the future volume forecasts. The land use and socio-demographic data were taken from Association of Bay Area Governments (ABAG) projections. Growth in truck percentage was developed in accordance with ABAG land use forecasts.

Existing peak hour mainline and ramp volumes were provided by Caltrans District 4. Original counts were collected between 2001 and 2002 for the I-580 Eastbound HOV Lane Project. Subsequent data was collected and compiled between 2005 and 2007. A detailed comparison of the two sets of data was performed, and the differences were presented in a previous memo dated January 5, 2008 - *Traffic Forecasting Report* (see *I- 580 Westbound HOV Lane Widening Project – Traffic Operations and Traffic Forecasting Report* dated July 2008). Caltrans staff have reviewed and provided comments regarding the differences in traffic counts and the validity of the model. The new traffic counts were applied, where appropriate, based on the review comments.

For the AM peak period, since traffic volumes and existing traffic conditions had changed along the corridor compared to the previous conditions, the most recent data collected between 2005 and 2007 were used in the analysis. As for the PM peak period, since westbound on the mainline is the non-peak direction of travel, and that there are no significant changes to the overall traffic counts or travel patterns, the original 2001-2002 data were retained for the analysis.

Two Caltrans mainline count stations were available along the westbound I-580 corridor; between Greenville Road and Vasco Road interchanges, and between Portola Road and Airway Boulevard interchanges. An additional mainline count was conducted west of the Dougherty Road off-ramp. In order to minimize the effects of constrained counts due to traffic congestion and queues, the eastern-most count station at the Greenville Road interchange was used to develop balanced mainline traffic flow of the study area. Truck volumes were also collected from Caltrans District 4 (*2006 Annual Average Daily Truck Traffic on the California State Highway System*).

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

**Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**  
2015

*All data are for I-580 westbound.*

**No Build and Build LOS, 2015**

Segments	NO BUILD				BUILD <sup>1</sup>			
	AM		PM		AM		PM	
	HOV	Mixed Flow	HOV	Mixed Flow	HOV	Mixed Flow <sup>2</sup>	HOV	Mixed Flow <sup>2</sup>
San Ramon Rd. – Interstate 680/580 Interchange	-	D	-	E	A	D	A	F
Interstate 680/580 Interchange – Hopyard Rd./Dougherty Rd.	-	F	-	E	A	F	A	F
Hopyard Road/Dougherty Rd. – Hacienda Dr.	-	F	-	D	A	F	A	E
Hacienda Dr. – Santa Rita Rd./Tassajara Rd.	-	F	-	D	A	F	A	D
Santa Rita Rd./Tassajara Rd. – El Charro Rd./Fallon Rd.	-	E	-	C	A	F	A	D
El Charro Rd./Fallon Rd. – Airway Blvd.	-	E	-	C	A	F	A	D
Airway Blvd. – Isabel Ave.	-	D	-	C	A	D	A	<b>C</b>
Isabel Ave. - Livermore Ave.	-	C	-	C	A	D	A	C
Livermore Ave. – First St.	-	C	-	C	A	D	A	C
First St. – Vasco Rd.	-	C	-	C	A	C	A	C
Vasco Rd. – Greenville Rd.	-	C	-	B	A	C	A	B
East of Greenville Rd.	-	D	-	B	-	D	-	<b>A</b>

- The project will construct an HOV lane in the westbound direction only (eastbound HOV lane currently in operation).
- Boldfaced** LOS letters indicate improvement in Level of Service compared with the No Build Alternative.
- 2015 LOS determined using Demand Volume/Capacity Ratio for each freeway segment, corridor micro-simulation model not prepared for 2015. 2035 LOS determined using a micro-simulation model for the corridor.

**No Build and Build Total AADT and Truck AADT, 2015**

Segments	NO BUILD		BUILD	
	Total AADT	Truck AADT*	Total AADT	Truck AADT*
San Ramon Rd. – Interstate 680/580 Interchange	106,802	12,816	107,508	12,901
Interstate 680/580 IC – Hopyard Rd./Dougherty Rd.	127,624	15,315	129,250	15,510
Hopyard Road/Dougherty Rd. – Hacienda Dr.	132,958	15,955	134,525	16,143
Hacienda Dr. – Santa Rita Rd./Tassajara Rd.	124,911	14,989	129,434	15,532
Santa Rita Rd./Tassajara Rd. – El Charro Rd./Fallon Rd.	122,389	14,687	127,721	15,327
El Charro Rd./Fallon Rd. – Airway Blvd.	115,770	13,892	122,284	14,674
Airway Blvd. – Isabel Ave.	119,518	14,342	123,709	14,845
Isabel Ave. - Livermore Ave.	130,911	15,709	134,850	16,182
Livermore Ave. – First St.	114,802	13,776	118,461	14,215
First St. – Vasco Rd.	108,429	13,012	110,524	13,263
Vasco Rd. – Greenville Rd.	88,842	10,661	90,154	10,818
East of Greenville Rd.	85,421	10,251	85,468	10,256

\* The Alameda County Travel Demand Model (ACCMA 2005) and other studies conducted along the I-580 corridor project that trucks will represent 20 percent of future traffic under both No Build and Build conditions. Current truck percentages in the project area range from 8 to 12 percent (Caltrans 2008). 2015 Truck percentages assumed to be 12%.

AADT Westbound direction only

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

**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**  
2035

*All data are for I-580 westbound.*

### No Build and Build LOS, 2035

Segments	NO BUILD				BUILD <sup>1</sup>			
	AM		PM		AM		PM	
	HOV	Mixed Flow	HOV	Mixed Flow	HOV	Mixed Flow <sup>2</sup>	HOV	Mixed Flow <sup>2</sup>
San Ramon Rd. – Interstate 680/580 Interchange	-	D	-	D	B	<b>C</b>	A	E
Interstate 680/580 Interchange – Hopyard Rd./Dougherty Rd.	-	F	-	E	B	<b>E</b>	A	<b>D</b>
Hopyard Road/Dougherty Rd. – Hacienda Dr.	-	F	-	D	B	F	A	D
Hacienda Dr. – Santa Rita Rd./Tassajara Rd.	-	F	-	C	C	F	A	D
Santa Rita Rd./Tassajara Rd. – El Charro Rd./Fallon Rd.	-	C	-	C	C	D	A	C
El Charro Rd./Fallon Rd. – Airway Blvd.	-	F	-	E	C	F	A	<b>D</b>
Airway Blvd. – Isabel Ave.	-	F	-	C	C	F	A	C
Isabel Ave. - Livermore Ave.	-	F	-	C	C	F	A	C
Livermore Ave. – First St.	-	F	-	C	C	F	A	C
First St. – Vasco Rd.	-	F	-	D	C	<b>C</b>	A	<b>B</b>
Vasco Rd. – Greenville Rd.	-	F	-	B	C	<b>C</b>	A	<b>A</b>
East of Greenville Rd.	-	F	-	B	-	<b>E</b>	-	B

- The project will construct an HOV lane in the westbound direction only (eastbound HOV lane currently in operation).
- Boldfaced** LOS letters indicate improvement in Level of Service compared with the No Build Alternative.
- 2015 LOS determined using Demand Volume/Capacity Ratio for each freeway segment, micro-simulation model not prepared for 2015. 2035 LOS determined using a micro-simulation model for the corridor.

### No Build and Build Total AADT and Truck AADT, 2035

Segments	NO BUILD		BUILD	
	Total AADT	Truck AADT*	Total AADT	Truck AADT*
San Ramon Rd. – Interstate 680/580 Interchange	104,782	20,956	106,736	21,347
Interstate 680/580 IC – Hopyard Rd./Dougherty Rd.	128,220	25,644	131,090	26,218
Hopyard Road/Dougherty Rd. – Hacienda Dr.	136,620	27,324	139,568	27,914
Hacienda Dr. – Santa Rita Rd./Tassajara Rd.	131,195	26,239	137,577	27,515
Santa Rita Rd./Tassajara Rd. – El Charro Rd./Fallon Rd.	124,147	24,829	130,744	26,149
El Charro Rd./Fallon Rd. – Airway Blvd.	132,069	26,414	138,332	27,666
Airway Blvd. – Isabel Ave.	132,698	26,540	139,231	27,846
Isabel Ave. - Livermore Ave.	149,978	29,996	155,801	31,160
Livermore Ave. – First St.	135,978	27,196	141,768	28,354
First St. – Vasco Rd.	130,675	26,135	133,538	26,708
Vasco Rd. – Greenville Rd.	110,126	22,025	112,473	22,495
East of Greenville Rd.	92,032	18,406	92,236	18,447

Note: \* The Alameda County Travel Demand Model (ACCMA 2005) and other studies conducted along the I-580 corridor project that trucks will represent 20 percent of future traffic under both No Build and Build conditions. Current truck percentages in the project area range from 8 to 12 percent (Caltrans 2008).

**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

**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 traffic analysis (Dowling 2008) shows that the project would result in the following operational improvements:

The project would increase vehicle throughput along westbound I-580; therefore, yielding higher VMT, while decreasing the total VHT. Westbound is the peak commute direction in the morning, and the project would improve corridor-wide average travel speed from approximately 21 mph to 28 mph, an increase of over 33%. Vehicle hours of delay (VHD) during the morning peak hour would be reduced by 1,250 hours. In addition, the project would result in an average travel time saving of approximately 13.2 minutes through the corridor for the mixed-flow lanes. Carpool vehicles utilizing the HOV lane would result in approximately 31 minutes of travel time savings through the entire corridor.

The project is projected to reduce traffic congestion and increase freeway mainline throughput. Compared to the No-Build conditions, the project would increase vehicle throughput by approximately 14%, based on vehicle miles traveled for AM Peak hour.

## 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 hot spot 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 or categories of projects qualify as a POAQC. The following discussion evaluates whether the proposed project falls into any of these five POAQC categories.

The project does not qualify as 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 project would not add capacity for diesel vehicles. I-580 WB in the project limits has four mixed-flow lanes of traffic with auxiliary lanes. The project will construct an HOV lane in the WB direction from Greenville to Foothill/San Ramon and construct westbound auxiliary lanes at various locations. The majority of diesel trucks are restricted from using HOV lanes, even for passing, by California Vehicle Code Section 21655(b).

2. The project does not affect any intersections (40 CFR Section 93.123(b)(1)(ii)).

3. It is not a new bus or rail terminal or transfer point (40 CFR Section 93.123(b)(1)(iii)).

4. It is not an expansion of an existing bus or rail terminal or transfer point (40 CFR Section 93.123(b)(1) (iv)).

5. There is no state implementation plan for PM<sub>2.5</sub>, and the project area is therefore not identified in an implementation plan as an area of potential violation (40 CFR Section 93.123(b)(1)(v)).

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hotspot analysis. The proposed project would not create a new, or worsen an existing, PM<sub>2.5</sub> violation.

# CAPITAL PROJECTS PROGRAM

## Project Fact Sheet



### PROJECT SPONSOR

Alameda CTC

### PROJECT DESCRIPTION

The I-580 Westbound (WB) HOV Lane Project provides a westbound high occupancy vehicle (HOV) lane from the Greenville overcrossing in Livermore to the San Ramon / Foothill Road overcrossing in Dublin / Pleasanton. The project will be constructed in three segments, under three construction contracts: an east segment, a west segment and the widening of the eastbound bridges.

### PROJECT STATUS

The Project Scope Summary Report (PSSR) for the project to rehabilitate the existing pavement was approved in October 2010 and the design consultant has added pavement rehabilitation to the I-580 WB HOV Lane Project. Final PS&E design documents for both the west and east segments have been submitted to Caltrans for review; approval is expected to be completed spring 2012. The widening of the bridges in the eastbound (EB) direction will be combined with the EB Auxiliary Lane Project. Right-of-way (ROW) Hardcopy/appraisal maps have been approved by Caltrans; offers will be made in December 2011.

## I-580 Westbound HOV Lane

Project Number: 724.0 | November 2011

### Project Highlights

- Final PS&E (west and east Segments) design documents have been submitted to Caltrans District 4 for review; west segment documents have been forwarded to Caltrans headquarters
- Approval of final design (RTL) documents expected spring 2012
- ROW acquisition in progress



# Project Fact Sheet

I-580 Westbound HOV Lane Project

Project Number: 724.0

November 2011

PROJECT COST ESTIMATE	
Cost Estimate by Phase (\$ X 1,000)	
Scoping	\$ 0
PE/Environmental	\$ 9,950
Final Design (PS&E)	\$ 3,150
Right-Of-Way	\$ 2,830
Utility Relocation	\$ 0
Construction	\$ 149,766
Equipment Purchase	\$ 0
<b>TOTAL Expenditures:</b>	<b>\$ 165,696</b>

PROJECT FUNDING	
Funding by Fund Source (\$ X 1,000)	
Measure B	\$ 0
Federal	\$ 8,916
State	\$ 141,100
Regional	\$ 14,280
Local	\$ 1,400
<b>TOTAL Revenues:</b>	<b>\$ 165,696</b>

PROJECT SCHEDULE								
Project Phase	Begin - End MM/YY	2010	2011	2012	2013	2014	2015	2016
PE/Environmental	07/07 - 10/09							
<i>West Segment</i>								
Final Design (PS&E)	06/08 - 02/12							
Right-Of-Way	04/08 - 02/12							
Vote/ Adv. / Award	03/12 - 07/12							
Construction	07/12 - 11/14							
<i>East Segment</i>								
Final Design (PS&E)	06/08 - 03/12							
Right-Of-Way	04/08 - 02/12							
Vote/ Adv. / Award	04/12 - 08/12							
Construction	08/12 - 11/14							

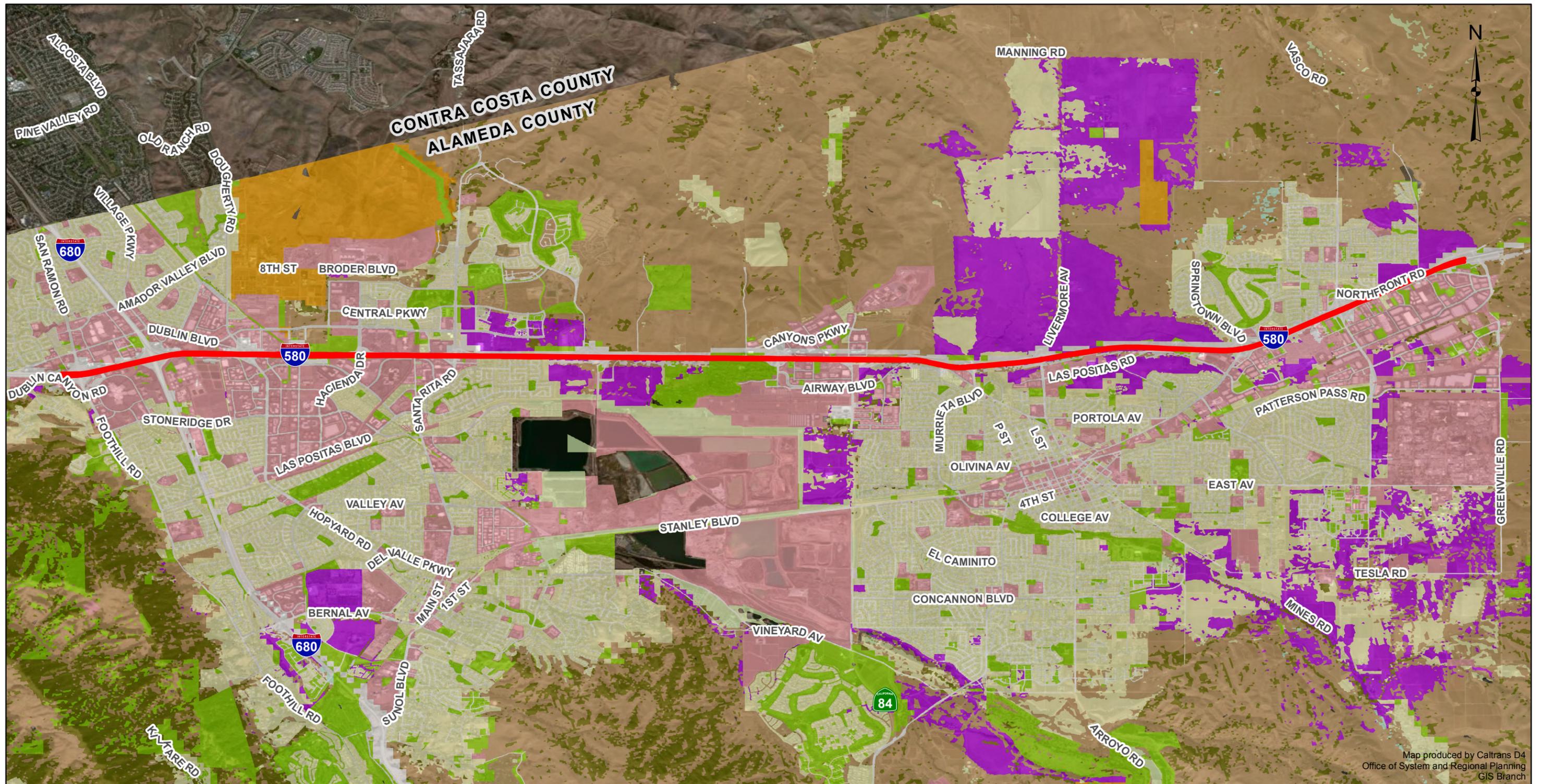


Westbound I-580 Corridor (looking west): the HOV lane is currently in design.



Westbound I-580 Corridor (looking east): the HOV lane is currently in design.

Note: The information on this fact sheet is subject to periodic updates.



**Legend**

- |   |  |   |
|---|--|---|
|  Project Limits |  Employment Areas |  Rangeland               |
| <b>Landuse</b>  |  Military         |  Forest Land             |
|  Infrastructure |  Urban Open       |  Sparsely Vegetated Land |
|  Residential    |  Agriculture      |  Wetlands                |

Source: ABAG 2005 Land Use Data

Map produced by Caltrans D4  
Office of System and Regional Planning  
GIS Branch