Alameda County Transportation Commission
meeting as a committee of the whole as the

I-580 EXPRESS LANE POLICY COMMITTEE

MEETING NOTICE

Monday, June 10, 2013 9:45 am

(Or immediately following I-680 SSCLJPA meeting)
1333 Broadway, Suite 300, Oakland, California 94612and
Teleconference location: 2011 Clearwood Drive, Bowie Maryland 20721
(See map on last page of agenda)

Chair:	John Marchand
Vice Chair:	Nate Miley
Members:	Scott Haggerty Jerry Thorne Tim Sbranti
Staff Liaison:	Stewart D. Ng
Executive Director:	Arthur L. Dao
Clerk of the Commission:	Vanessa Lee

AGENDA
Copies of Individual Agenda Items are Available on the:
Alameda CTC Website -- www.AlamedaCTC.org

1 ROLL CALL

2 PUBLIC COMMENT

Members of the public may address the Committee during "Public Comment" on any item not on the agenda. Public comment on an agenda item will be heard when that item is before the Committee. Only matters within the Committee's jurisdictions may be addressed. Anyone wishing to comment should make their desire known by filling out a speaker card and handling it to the Clerk of the Commission. Please wait until the Chair calls your name. Walk to the microphone when called; give your name, and your comments. Please be brief and limit comments to the specific subject under discussion. Please limit your comment to three minutes.

3 CONSENT CALENDAR

3A. Approval of the Minutes of May 13, 2013 – **Page 1** **A**

4 REGULAR MATTERS

4A. I-580 Corridor High Occupancy Vehicle (HOV) Lane Projects Monthly Progress Report **– Page 3** **I**

4B. I-580 Express (HOT) Lane Projects Monthly Progress Report **– Page 13** **I**

5 COMMITTEE MEMBER REPORTS (Verbal)

6 STAFF REPORTS (Verbal)

7 ADJOURNMENT/NEXT MEETING: July 8, 2013

Key: A- Action Item; I – Information Item

(*) Materials will be distributed at the meeting.
(#) All items on the agenda are subject to action and/or change by the Board.

PLEASE DO NOT WEAR SCENTED PRODUCTS SO INDIVIDUALS WITH ENVIRONMENTAL SENSITIVITIES MAY ATTEND

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Glossary of Acronyms

ABAG Association of Bay Area Governments

ACCMA Alameda County Congestion Management Agency

ACE Altamont Commuter Express

ACTA Alameda County Transportation Authority (1986 Measure B authority)

ACTAC Alameda County Technical Advisory Committee

ACTC Alameda County Transportation Commission

ACTIA Alameda County Transportation Improvement Authority (2000 Measure B authority)

ADA Americans with Disabilities Act

BAAQMD Bay Area Air Quality Management District

BART Bay Area Rapid Transit District

BRT Bus Rapid Transit

Caltrans California Department of Transportation

CEQA California Environmental Quality Act

CIP Capital Investment Program

CMAQ Federal Congestion Mitigation and Air Quality

CMP Congestion Management Program

CTC California Transportation Commission

CWTP Countywide Transportation Plan

EIR Environmental Impact Report

FHWA Federal Highway Administration

FTA Federal Transit Administration

GHG Greenhouse Gas

HOT High occupancy toll

HOV High occupancy vehicle

ITIP State Interregional Transportation Improvement Program

LATIP Local Area Transportation Improvement Program

LAVTA Livermore-Amador Valley Transportation Authority

LOS Level of service

MTC Metropolitan Transportation Commission

MTS Metropolitan Transportation System

NEPA National Environmental Policy Act

NOP Notice of Preparation

PCI Pavement Condition Index

PSR Project Study Report

RM 2 Regional Measure 2 (Bridge toll)

RTIP Regional Transportation Improvement Program

RTP Regional Transportation Plan (MTC's Transportation 2035*)*

SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation Equity Act

SCS Sustainable Community Strategy

SR State Route

SRS Safe Routes to Schools

STA State Transit Assistance

STIP State Transportation Improvement Program

STP Federal Surface Transportation Program

TCM Transportation Control Measures

TCRP Transportation Congestion Relief Program

TDA Transportation Development Act

TDM Travel-Demand Management

TEP Transportation Expenditure Plan

TFCA Transportation Fund for Clean Air

TIP Federal Transportation Improvement Program

TLC Transportation for Livable Communities

TMP Traffic Management Plan

TMS Transportation Management System

TOD Transit-Oriented Development

TOS Transportation Operations Systems

TVTC Tri Valley Transportation Committee

VHD Vehicle Hours of Delay

VMT Vehicle miles traveled

ALAMEDA
County Transportation Commission

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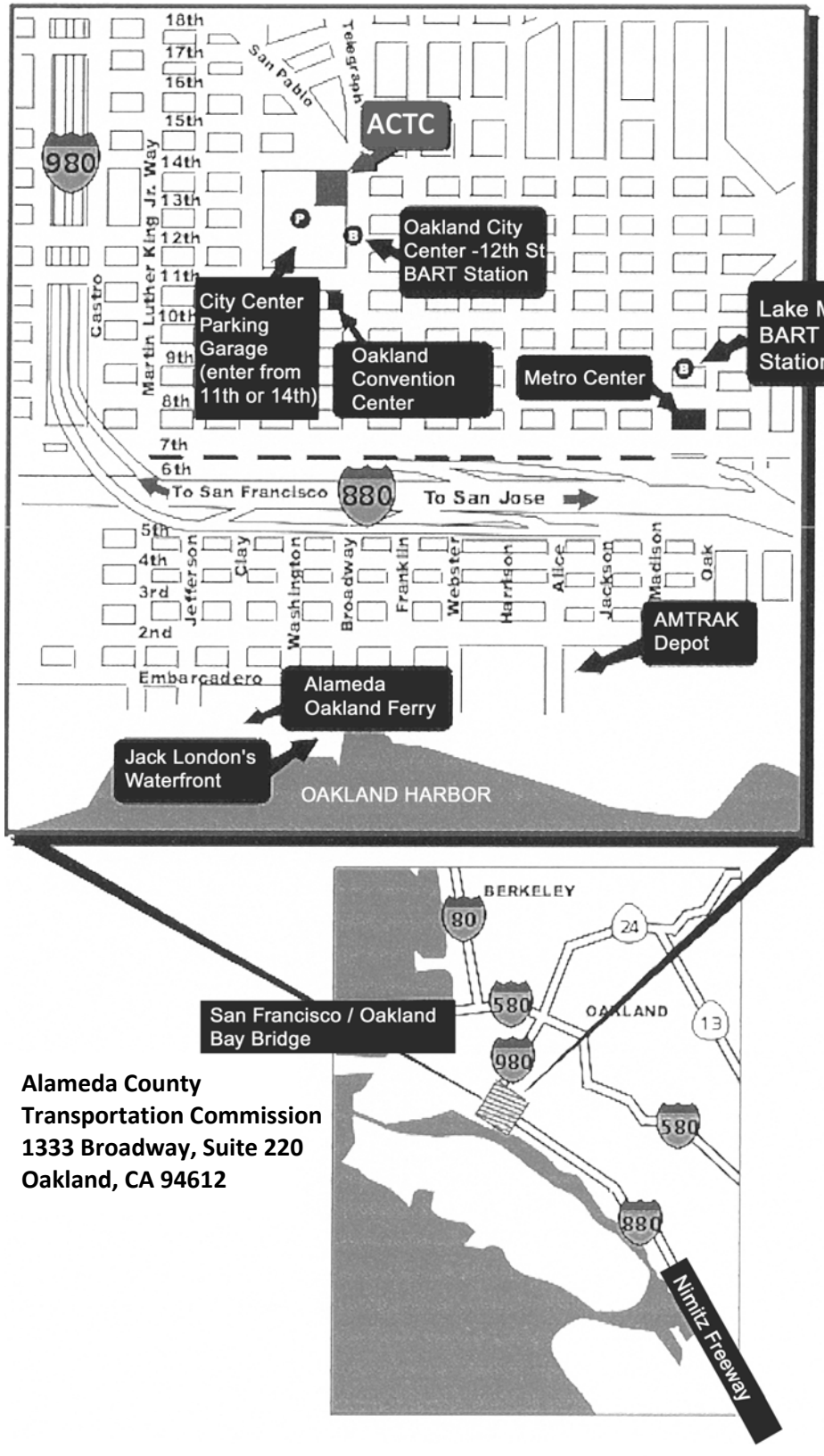

Alameda County Transportation Commission
1333 Broadway, Suite 220
Oakland, CA 94612

Directions to the Offices of the Alameda County Transportation Commission:

1333 Broadway, Suite 220
Oakland, CA 94612

Public Transportation Access:

BART: City Center / 12th Street Station

AC Transit:
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Auto Access:

- Traveling South: Take 11th Street exit from I-980 to 11th Street
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  City Center Garage – Underground Parking,
  (Parking entrances located on 11th or 14th Street)

I-580 Express Lane Policy Committee Meeting
MINUTES OF MAY 13, 2013
OAKLAND, CALIFORNIA

The meeting was convened by the Chair, Mayor Marchand, at 9:57am

1 ROLL CALL

A quorum was confirmed.

2 PUBLIC COMMENT

There were no public comments.

3 CONSENT CALENDAR

3A. Approval of Minutes of April 08, 2013

Mayor Sbranti motioned to approve this Item. Supervisor Miley seconded the motion. The motion passed 5-0.

4 REGULAR MATTERS

4A. I-580 Corridor High Occupancy Vehicle (HOV) Lane Projects Monthly Progress Report

Stefan Garcia provided an update on the I-580 Corridor High Occupancy Vehicle (HOV) Lane Projects. Mr. Garcia gave an update on all three contracts relating to the projects and stated that the Alameda CTC has been working in partnership with Caltrans, the Metropolitan Transportation Commission (MTC), as well as local jurisdictions to deliver the projects.

This item was for information only.

4B. I-580 Express (HOT) Lane Projects Monthly Progress Report

Gary Sidhu presented an update on the I-580 Express (HOT) Lane Projects. The update included a status on the design and construction phase, east and westbound scheduling, implementation of near continuous access configuration, manual and automatic violation enforcement mechanisms and detection systems.

This Item was for information only.

5 COMMITTEE MEMBER REPORTS

There were no committee member reports.

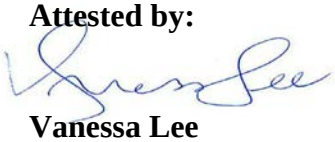
6 STAFF REPORTS

Art Dao informed the Committee that the there was a groundbreaking event for the Westbound 580 HOV lane scheduled for June 13, 2013 in Dublin.

7 ADJOURNMENT/NEXT MEETING: June 10, 2013

The meeting adjourned at 10:15 am. The next meeting will be June 10, 2013.

Attested by:



Vanessa Lee
Clerk of the Commission

Memorandum

DATE: June 03, 2013

TO: I-580 Express Lane Policy Committee

FROM: Stewart D. Ng, Deputy Director of Programming and Projects
Stefan Garcia, Project Controls Team

SUBJECT: I-580 Corridor High Occupancy Vehicle (HOV) Lane Projects Monthly Progress Report

Recommendation
This item is for information only.

Summary
The Alameda CTC is the sponsor for the I-580 Corridor High Occupancy Vehicle (HOV) Lane Project, which constructs an HOV lane in the Eastbound and Westbound directions between Pleasanton and Livermore. The projects provide increased capacity, safety and efficiency for commuters and freight along the primary trade corridor connecting the Bay Area with the Central Valley. As project sponsor, the Alameda CTC has been working in partnership with Caltrans, the Metropolitan Transportation Commission (MTC), Alameda County, and the cities of Livermore, Dublin, and Pleasanton to deliver the projects.

The I-580 Corridor HOV Lane Project will be completed with the construction of three final project segments in the Livermore Valley (Two westbound segments and one eastbound). All three of these project segments are currently in construction and are being administered by Caltrans. Construction activity began in March 2013. The project partners will hold a groundbreaking ceremony on June 13, 2013.

Attached for the Committee's review are the May 2013 progress reports for the I-580 Eastbound HOV Lane Project and the I-580 Westbound HOV Lane Project.

Fiscal Impact
This item is for information only. There is no fiscal impact at this time.

Attachment(s)
Attachment A: I-580 Eastbound HOV Lane Project Monthly Progress Report
Attachment B: I-580 Westbound HOV Lane Project Monthly Progress Report
Attachment C: I-580 Corridor HOV Lane Projects – Location Map

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ATTACHMENT A
I-580 Eastbound HOV Lane Project
Monthly Progress Report
Through May 28, 2013

PROJECT DESCRIPTION

The Eastbound I-580 HOV Lane Project includes three segments:

- **SEGMENT 1 –** EB HOV lane from Greenville Road to Portola Avenue. ***OPENED 2009***
- **SEGMENT 2 –** EB HOV lane from Portola Avenue to Hacienda Drive. ***OPENED 2010***
- **SEGMENT 3** – Auxiliary (AUX) Lanes between Hacienda Drive and Greenville Road. Project scope includes:
  - Construction of AUX lanes from Isabel Avenue to First Street;
  - Pavement width necessary for a double high occupancy toll (HOT) lane facility;
  - Final lift of asphalt concrete (AC) pavement and striping for entire eastbound project limits from Hacienda Drive to Portola Avenue;
  - The soundwall that was deleted from the I-580/Isabel Avenue Interchange Project; and,
  - The widening of two bridges at Arroyo Las Positas in the eastbound direction.

CONSTRUCTION STATUS – SEGMENT 3

Traffic Handling & Night Work

Construction activities include both day and night work. Significant work is involved in rehabilitating the existing pavement which requires closing traffic lanes; however, no complete freeway closures are anticipated. Due to heavy day time traffic volumes, closing traffic lanes in the daytime is not feasible. For this reason, pavement rehabilitation work can only be done during night time hours. Night work will include setting lane closures and shifting traffic lanes (placement of k-rail and striping work), existing pavement rehabilitation work (crack and seat, slab replacement and overlay) and electrical work. Caltrans lane closure charts permit the contractor to perform this work at night between 9pm and 4am. Work within the median behind k-rail is expected as the first order of work and will occur during day time hours. In addition, all bridge work is expected to occur during day time hours.

Completed Activities

Construction activities began in April 2013. Work completed to date includes:

- Construction Area signage installation
- Temporary striping and placement of safety barrier (k-rail) for Stage 1
- Installation of bird exclusion measures at bridge locations

Ongoing & Upcoming Activities

Caltrans is maintaining a project website (http://www.dot.ca.gov/dist4/projects/i580wbhov/) and conducts public information and outreach efforts in cooperation with Alameda CTC. Ongoing and upcoming work activities include:

- Install temporary creek diversion system for box culvert and bridge work
- Excavate and construct retaining walls
- Widen bridge over Arroyo Las Positas
- Widen major box culvert and modify related drainage facilities

FUNDING AND FINANCIAL STATUS – SEGMENT 3

The I-580 Eastbound HOV is funded through federal, state and local funds.

Funding Plan at Award – SEGMENT 3

Project Phase	Funding Source ($ x million)						
	CMIA	RM2	TVTC	FED	SHOPP	Meas. B	Total
PA&ED		1.54	0.64				**2.18**
PS&E		1.38	0.92	0.23		0.07	**2.60**
ROW		0.20	0.06			0.33	**0.59**
Construct Cap	17.87	2.20			4.69	6.08	**30.84**
Construct Sup	2.53	1.12				1.09	**4.74**
TOTAL	**20.40**	**6.44**	**1.62**	**0.23**	**4.69**	**7.57**	**40.95**
Total Project Cost: $40.95 M							

SCHEDULE STATUS – SEGMENT 3

The EB Auxiliary Lane project between Hacienda Drive and Greenville Road was advertised on July 9, 2012; bids were opened on October 5, 2012. The contract was awarded to OC Jones & Sons (with a bid 6.33% below the Engineer's Estimate) by Caltrans on November 16, 2012. Construction is planned to complete in late 2014.

Project Approval	December 2011 (A)
RTL	May 2012 (A)
CTC Vote	May 2012 (A)
Begin Construction (Award)	November 2012 (A)
End Construction	November 2014 (T)

ATTACHMENT B
I-580 Westbound HOV Lane Project
Monthly Progress Report
Through May 28, 2013

PROJECT DESCRIPTION

The Westbound I-580 HOV Lane Project includes three segments:

- **SEGMENT 1** – WB HOV Eastern Segment from Greenville Road to Isabel Avenue.
- **SEGMENT 2** – WB HOV Western Segment from Isabel Avenue to San Ramon Road.
- **SEGMENT 3** – Bridge widening at Arroyo Las Positas Creek. This work is included in the construction contract for the EB HOV Lane Project (see Attachment A).

CONSTRUCTION STATUS – SEGMENTS 1 & 2

Traffic Handling & Night Work

Construction activities include both day and night work. Significant work is involved in rehabilitating the existing pavement which requires closing traffic lanes; however, no complete freeway closures are anticipated. Due to heavy day time traffic volumes, closing traffic lanes in the daytime is not feasible. For this reason, pavement rehabilitation work can only be done during night time hours. Night work will include setting lane closures and shifting traffic lanes (placement of k-rail and striping work), existing pavement rehabilitation work (crack and seat, slab replacement and overlay) and electrical work. Caltrans lane closure charts permit the contractor to perform this work at night between 9pm and 4am. Work within the median behind k-rail is expected as the first order of work and will occur during day time hours. In addition, all bridge work is expected to occur during day time hours.

Completed Activities

Construction activities began in March 2013. Work completed to date includes:

SEGMENT 1 (Eastern Segment)

- Temporary striping, shift traffic lanes and placement of safety barrier (k-rail) on outside shoulder from Greenville to Airway
- Removed shrubs and some trees to prevent bird nesting
- Removed OH sign at N. Livermore Ave to facilitate relocation of PG&E pole.

SEGMENT 2 (Western Segment)

- Temporary striping, shift traffic lanes and placement of safety barrier (k-rail) on median shoulder from Airway to Foothill
- Storm Water Pollution Prevention Program (SWPPP) approved
- Removed shrubs and some trees to prevent bird nesting

Ongoing & Upcoming Activities

Caltrans is maintaining a project website (http://www.dot.ca.gov/dist4/projects/i580wbhov/) and conducts public information and outreach efforts in cooperation with Alameda CTC. Ongoing and upcoming work activities include:

SEGMENT 1 (Eastern Segment)

- Submittal reviews ongoing

- PG&E relocating overhead line at N. Livermore Avenue
- Install temporary creek diversion system for bridge and box culvert (RCB) widening

SEGMENT 2 (Western Segment)

- Bridge widening at Dougherty near Dublin BART station
- Submittal reviews in progress
- Stage 1 median widening
- Install temporary creek diversion system at Tassajara Creek.

FUNDING AND FINANCIAL STATUS

The I-580 Westbound HOV Lane Project is funded through federal, state, and local funds available for the I-580 Corridor. The total project cost is $145.2M. The total programmed (committed) funding from federal, state and local sources is $45.2M.

Funding Plan At Award – SEGMENT 1 (Eastern Segment)

Project Phase	Funding Source ($ x million)								
	CMIA	RM2	TCRP	FED	SHOPP	Meas. B	TVTC	TCRP LONP	Total
PA&ED		4.44							**4.44**
PS&E		3.23		0.12		0.89	0.54		**4.78**
ROW		1.37							**1.37**
Const Cap	35.34		5.92	6.19	13.54	0.96			**61.95**
Const. Sup	6.52		1.59			2.06		0.24	**10.41**
Total	**41.86**	**9.04**	**7.51**	**6.31**	**13.54**	**3.91**	**0.54**	**0.24**	**82.95**
Total Project Cost: $82.95 M									

Funding Plan At Award – SEGMENT 2 (Western Segment)

Project Phase	Funding Source ($ x million)							
	CMIA	RM2	TCRP	FED	SHOPP	Meas. B	TVTC	Total
PA&ED		3.71						**3.71**
PS&E		2.71		0.10		0.73	0.46	**4.00**
ROW		1.12						**1.12**
Const Cap	33.73		2.49		9.61			**45.83**
Const. Sup	6.75					0.88		**7.63**
Total	**40.48**	**7.54**	**2.49**	**0.10**	**9.61**	**1.61**	**0.46**	**62.29**
Total Project Cost: $62.29 M								

SCHEDULE STATUS

SEGMENT 1 (Eastern Segment):
The WB HOV Eastern Segment from Greenville Road to Isabel Avenue was advertised on July 16, 2012; bids were opened on September 19, 2012. The contract was awarded to Ghilotti Construction Company, Inc. (with a bid 16.33% below Engineer's Estimate) by Caltrans on November 20, 2012. Construction is planned to complete in late 2014.

Project Approval	January 2010 (A)
RTL	May 2012 (A)
CTC Vote	May 2012 (A)
Begin Construction (Award)	November 2012 (A)
End Construction	November 2014 (T)

SEGMENT 2 (Western Segment):
The WB HOV Western Segment from Isabel Avenue to San Ramon Road was advertised on June 25, 2012 and bids were opened on August 29, 2012. The contract was awarded to DeSilva Gates Construction (with a bid 23.32% below Engineer's Estimate) by Caltrans on October 29, 2012. Construction is planned to complete in late 2014.

Project Approval	January 2010 (A)
RTL	April 2012 (A)
CTC Vote	April 2012 (A)
Begin Construction (Award)	October 2012 (A)
End Construction	November 2014 (T)

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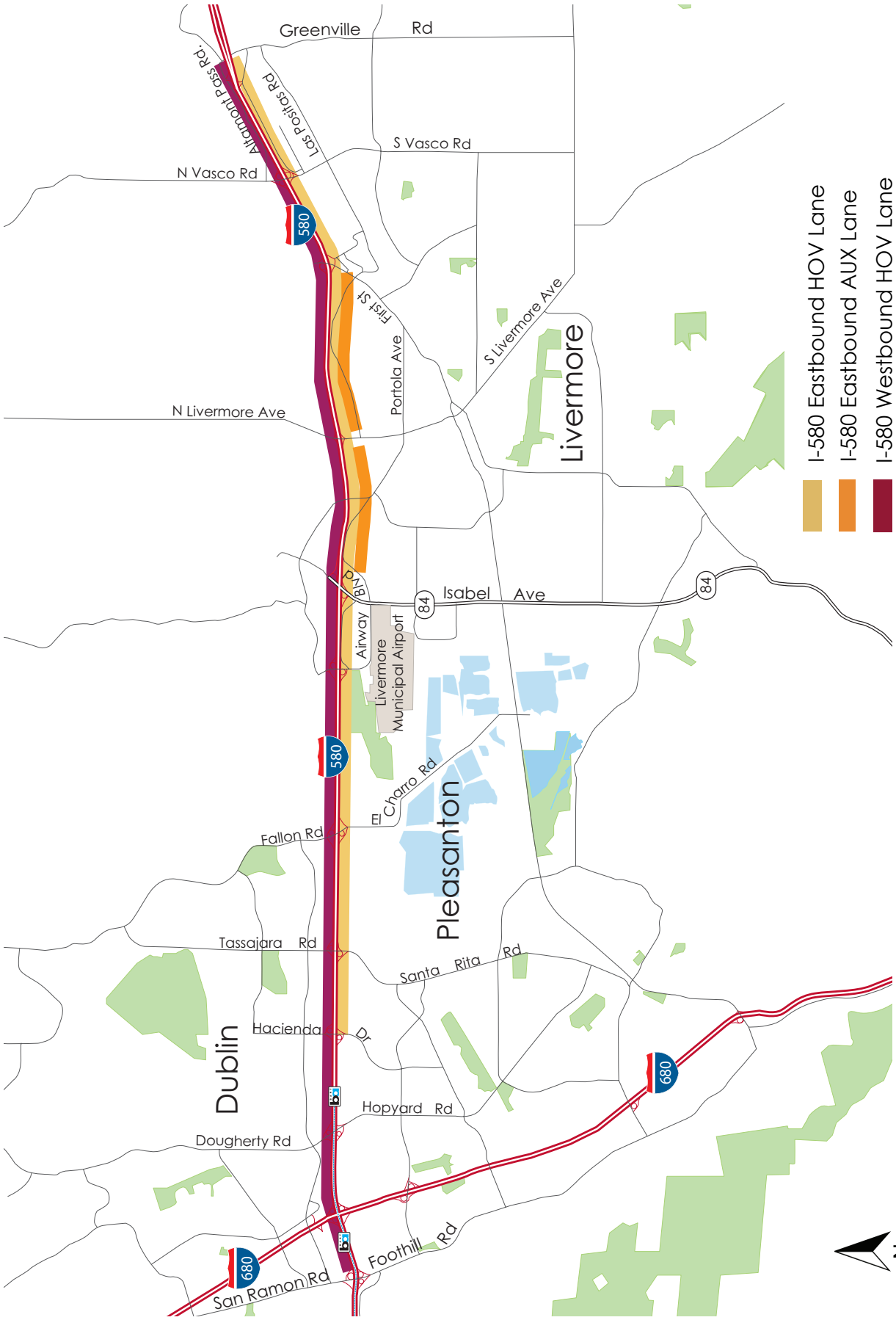
I-580 Corridor HOV Lane Projects - Location Map



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Memorandum

DATE: June 03, 2013

TO: I-580 Express Lane Policy Committee

FROM: Stewart D. Ng, Deputy Director of Programming and Projects
Gary Sidhu, Project Controls Team

SUBJECT: I-580 Express (HOT) Lane Projects Monthly Progress Report

Recommendation
This item is for information only.

Summary
The Eastbound I-580 Express High Occupancy Toll (HOT) Lane Project will convert the newly constructed eastbound HOV lane, from Hacienda Drive to Greenville Road, to a double express lane facility. The I-580 Westbound Express High Occupancy Toll (HOT) Lane will convert the westbound HOV lane (currently under construction) to a single express lane facility from west of Greenville Road to west of the San Ramon Road/Foothill Road Overcrossing in Dublin/Pleasanton.

Both I-580 express lane projects are currently in the environmental phase which is forecast for completion in August 2013 and are scheduled to start construction immediately after the east and west segments of the I-580 Westbound HOV Lane and I-580 Eastbound Auxiliary Lane Projects are completed in 2014. These HOV lane projects will widen the freeway to provide the width needed for the express lane projects. The I-580 Eastbound and Westbound Express Lane Projects will construct the necessary infrastructure, such as signing, sign gantries for dynamic messaging and toll reading, electrical conduit for connecting power and communication sources, and striping to accommodate the express lanes. The System Integrator contractor will install the required communication equipment and software. The express lane facility will be open for use in 2015.

For detailed information on project funding, schedule and status of the Eastbound I-580 Express (HOT) Lane, Westbound I-580 Express (HOT) Lane and System Integration, see Attachments A, B and C of this report.

Discussion
Delivery Strategy
I-580 Eastbound Express (HOT) and I-580 Westbound Express (HOT) Projects will be combined into one construction project. This will reduce bid advertising and construction support costs

and minimize potential conflicts with two contractors performing work within the same project limits and median of the highway.

Staff continues to work with Caltrans to add strategic express lane project elements to the existing I-580 Westbound HOV and I-580 Eastbound Auxiliary Lane construction contracts via contract change order, where feasible. The benefit of this approach is to avoid additional traffic disruptions to the traveling public and reduce or eliminate re-work. Items under consideration to be included as contract change order work includes:

- Electrical Conduit – across and along I-580
- Striping – stripe to final HOT configuration
- Install K-rail along median at sign locations

"Near Continuous" Access Configuration Status

Staff is currently moving forward with the concept of a "near continuous" access configuration in lieu of "limited" access for the express lanes on the I-580 corridor. The "near continuous" (aka "more open") access configuration would eliminate the two foot buffer between the express lane and the general purpose lanes except at "hot spots" or "safety zones" such as between Hacienda and Fallon Road (eastbound) and Hacienda and I-680 (westbound). The project team is working on refining the traffic operations analysis for a "near continuous" access configuration. This process has required more work and time than originally anticipated; which will result in a delay in completion of the environmental phase of the eastbound project until approximately October 2013. The construction start date will not be delayed and is scheduled to start in fall 2014.

In addition, other project revisions are underway to implement the "near continuous" access concept including revisions to the toll systems software, changes to the location of the Dynamic Message Signs (DMS) and toll gantries, updating the Concept and Operations Plan and System Engineering and Management Plan, and analyzing zone tolling requirements.

Fiscal Impact

This item is for information only. There is no fiscal impact at this time.

Attachment(s)

Attachment A: I-580 Eastbound Express (HOT) Lane Project Monthly Progress Report
Attachment B: I-580 Westbound Express (HOT) Lane Project Monthly Progress Report
Attachment C: I-580 Express (HOT) Lanes System Integration Monthly Progress Report
Attachment D: I-580 Corridor Express Lane Projects – Location Map

ATTACHMENT A
I-580 Eastbound Express (HOT) Lane Project
Monthly Progress Report
Through May 31, 2013

PROJECT DESCRIPTION

The Eastbound I-580 Express or High Occupancy Toll (HOT) Lane Project will convert the newly constructed eastbound HOV lane, from Hacienda Drive to Greenville Road, to a double express lane facility which will include standard shoulder and lane widths where feasible.

PROJECT DELIVERY STATUS

The Environmental Phase for this project is underway as follows:

- Environmental studies are complete and the Initial Study and Environmental Assessment (IS/EA) is drafted and ready to circulate pending updating for changes to address "near continuous" access alternative and Caltrans approval of the Traffic Operational Analysis Report and Draft Project Report in June 2013. The estimated date of circulation of the draft IS/EA is July 2013. A 30 day public circulation period is required in addition to a public meeting expected in August 2013.
- Staff is working to coordinate with the three I-580 HOV lane projects currently in construction (I-580 Westbound HOV - West Segment, I-580 Westbound HOV - East Segment, I-580 Eastbound HOV Segment 3 - Auxiliary Lanes) to add some express lane elements to the civil projects via contract change order (CCO). The following is a list of work under consideration to include by CCO:
    - Electrical Conduit – across and along I-580
    - Striping – stripe to final HOT configuration
    - Install K-rail along median at sign locations

POTENTIAL ISSUES/RISKS

- Funding – Current funding shortfall to implement "near continuous" approach. (See "Funding & Financial Status" at the end of Attachment C). Staff is pursuing TIGER GRANT funding and exploring other options to fully fund the project.
- Schedule impacts –additional project delays to the environmental phase due to refinement of traffic analysis for "near continuous" access configuration and final agreement of the Design Exceptions. The delay in environmental phase is not expected to have any effect on construction start which is scheduled to start in 2014.

SCHEDULE STATUS

I-580 Eastbound Express (HOT) Lane Project Schedule:

Project Approval	October 2013
RTL	June 2014
Begin Construction	September 2014
End Construction	June 2015

RECENT ACTIVITIES

- Refining traffic studies for "near continuous" access alternative
- Updating the civil work cost estimate and System Integration scope & cost
- Discussing dynamic messaging and other sign plans with Caltrans to get their approval

UPCOMING ACTIVITIES

- Finalize Traffic Study refinements – Target date June 2013
- Finalize Draft Project Report – Target June 2013
- Circulate the Draft IS/EA for 30 day public comment – working toward July 2013 circulation of document; dependent on completion of additional work for conversion to "near continuous" access. A public meeting will be held during the 30 day comment period
- Working toward environmental clearance and project approval by Caltrans and the Federal Highway Administration by October 2013
- Determine items to be added to HOV lane projects via CCO – Target date June 2013

ATTACHMENT B
I-580 Westbound Express (HOT) Lane Project
Monthly Progress Report
Through May 31, 2013

PROJECT DESCRIPTION

The I-580 Westbound Express or High Occupancy Toll (HOT) Lane Project will convert the planned westbound HOV lane to a single express lane facility on I-580 in Alameda County from west of the Greenville Road Undercrossing in Livermore to west of the San Ramon Road/ Foothill Road Overcrossing in Dublin/Pleasanton, a distance of approximately 14 miles.

PROJECT DELIVERY STATUS

The environmental phase for this project is underway as follows:

- Traffic studies are being updated to include an evaluation of the "near continuous" access alternative.
- The environmental document, a Categorical Exemption (CE), is being finalized.
- A Supplemental Project Report is being reviewed by Caltrans.

POTENTIAL ISSUES/RISKS

- Funding – there is a current funding shortfall. (See Funding & Financial Status at the end of Attachment C). Staff is pursuing TIGER GRANT funding and exploring other options to fully fund the project.
- Schedule impacts –There have been some delays associated with completing the traffic studies for the "near continuous" access approach. The target date for completion of the environmental phase is currently July 2013. This delay is not expected to have any effect on construction start which is scheduled for fall 2014

SCHEDULE STATUS

I-580 Westbound Express (HOT) Lane Project Schedule:

Project Approval	July 2013
RTL	June 2014
Begin Construction	September 2014
End Construction	June 2015

RECENT ACTIVITIES

- Environmental technical studies and completion of traffic studies (including "near continuous" access configuration) are underway
- Completion of geometrics and Supplemental Project Report (including Design Exceptions) are underway
- Discussing dynamic messaging and other sign plans with Caltrans for their approval.
- Draft Traffic Operational Analysis Report (TOAR)
- A Public Outreach Meeting held on May 14, 2013.

UPCOMING ACTIVITIES

- Supplemental Project Report Approval – Target date July 2013
- Final environmental clearance – Target date July 2013

ATTACHMENT C
I-580 Express (HOT) Lanes Systems Integration
Monthly Progress Report
Through May 31, 2013

SYSTEM INTEGRATION SCOPE DESCRIPTION

The I-580 Express Lane civil work will construct the necessary infrastructure, such as signing, sigh gantries for dynamic messaging and toll reading, electrical conduit for connecting power and communication sources, and pavement striping to accommodate express lanes. The System Integrator will include tolling hardware design and software development, factory testing of design, equipment and system installation, and road geometry and toll system integration. It will also consist of field testing of the toll equipment and all subsystems including the interfaces to the BATA Regional Customer Service Center and Caltrans prior to implementing the new express lanes.

Detailed Discussion

The systems integration focuses on the most recent technologies including software, hardware and traffic detection that will be deployed to optimize the existing corridor capacity in order to effectively manage the current and forecasted traffic in the corridor. The system integrator, however, will continue to own the software while the implementing agency will pay for the use of license to allow for the usage of the toll integrator's software.

In March 2010, the Alameda CTC retained Electronic Transaction Consultants (ETC) Corporation as its Systems Integrator for implementation of the new electronic toll collection system for the I-580 Eastbound Express Lanes facility. As discussed at the previous I-580 PAC meetings, the agency and ETC staff have been working towards revising the contract requirements to revise the express lane access configuration from "limited" to a "near continuous" operating concept and include additional tasks for implementing the electronic toll collection system for the Westbound I-580 Express Lane. With the revisions to the consultant services agreement, ETC would be responsible for the toll system design, development, factory testing, installation, integration, field testing and operations and maintenance, for the new I-580 express lanes in both directions of travel.

The "near continuous" concept provides additional access opportunities while reducing the foot-print required for implementing a shared express/general purpose lane facility. In addition, it looks and feels almost like an HOV facility and, therefore, would expect to provide driver familiarity.

Project Status

The following is a detailed discussion of the major activities that are either progressing or planned for in 2013:

Project Geometry and Electronic Toll System Design
The civil/roadway designers have developed geometry for the "near continuous" express lanes operating concept. Geometric development is an iterative process as it requires close coordination with the operational analysis and needs to address operational, safety and enforcement issues. The latest version of the express lanes concept proposes the following:

In the eastbound I-580 direction:

- Buffer separated single-lane HOV/Express Lane will be installed from Hacienda Drive to Fallon Road
- Continuous dual-lane HOV/Express Lane will be installed from Fallon Road to west of Vasco Road
- Continuous single-lane HOV/Express Lane will be installed from west of Vasco Road to Greenville Road

In the westbound I-580 direction:

- Continuous single-lane HOV/Express Lane will be installed from Greenville Road to Hacienda Drive
- A buffer separated single-lane HOV/Express Lane will be installed from Hacienda Drive to the I-580/I-680 Interchange

Additional coordination between the designers and Caltrans is necessary prior to finalizing the project geometry.

On a regular basis, the civil and toll system designers have been coordinating their designs and have determined the preliminary locations of the toll equipment, such as the Dynamic Message Signs (DMS), the toll antennas and readers. ETC staff will design the toll system software and hardware based on the identified new toll equipment locations, the power and communication sources, and the revised express lanes access configuration. ETC will also define the power and communication requirements for the electronic toll collection system design and provide this information to the civil/roadway design team for their power/communication design.

Traffic and Revenue Study
The travel demand forecast and toll revenue forecasts in both directions of the I-580 express lanes facility are being updated to reflect post-recession traffic numbers. In addition, the revenue model will incorporate the post-recession socio/economic conditions that have been experienced in the east county communities and the near continuous access concept.

While the "near continuous" access could potentially generate additional revenue, it might lead to an increase in revenue leakage due to challenges associated with enforcing express lane violations in a "continuous" express lane concept. Project staff is exploring an automated violation enforcement system concept to try and deter system violations, as described in subsequent sections of this memorandum.

Concept of Operations/System Engineering Management & Enforcement Plans
CDM Smith staff will be updating a concept of operations (Con Ops) plan and a system engineering management plan (SEMP) to reflect the changes described above. These plans will outline the engineering process, the testing process, QA/QC guidelines, toll maintenance and operations requirements, and communication network requirements, etc. A System Enforcement

plan needs to be developed by CDM Smith, utilizing electronic equipment to deter/minimize toll evasion/violation. A final SEMP will include both the Con Ops and the System Enforcement plan as appendices; which will require FHWA review and approval.

Software and hardware design

ETC will revise the Detailed Design Document (DDD) for the software and hardware development based on deploying a "near continuous" access express lane system. The designers will also revise the communication network and electrical power needs. ETC staff will then perform a series of factory and field tests and work with the agency staff to validate its hardware and software design, prior to opening the new express lanes facility.

Toll Pricing and Rate Publishing

As discussed in previous meetings, for practical purposes and to curtail toll violation, a zone-based toll pricing scheme likely will be implemented to effectively support the "near continuous" access configuration. The zone-based toll rates will be displayed to patrons via the DMSs. However, since the "near continuous" access approach is a new concept and first of its kind to be implemented in California, additional details for pricing and messaging will have to be analyzed and determined during the system design process, prior to finalizing the electronic toll collection and price-setting systems.

Toll Antennas, Readers and Violation Enforcement Subsystem

Closely spaced toll antennas and readers will help facilitate a "near continuous" access express lane configuration since it will lead to an effective FasTrak® transponder read. It should also support more effective toll violation enforcement. Various local and regional agencies are currently studying the potential effects of placing toll reader gantries at various intervals through the corridor, for example from ½ mile or 1 mile intervals, which is expected to effectively support a "near continuous" access express lane facility. While evaluating a preliminary project geometry and electronic toll collection system design, staff situated the toll gantries at approximately ¾ mile intervals. Efforts were made by the project design team to combine the tolling gantry and DMS locations at the same locations, for use in both directions of travel.

Since the "near continuous" access will employ an increased number of toll gantries (for readers), it will be difficult to enforce manual toll violation enforcement. Therefore, an automated toll violation enforcement system strategy will have to be designed and deployed to effectively manage the toll violation enforcement. The issues related to customer privacy, toll dispute resolution, customer service and issuance of automated violation tickets will have to be vetted to ensure that it can be implemented within the current California vehicle code and agency requirements. In addition, to enhance system violation detection, additional CCTV cameras and violation enforcement system (VES) cameras (for license plate capture) will need to be designed, developed, integrated into the toll system and installed.

LA Metro implemented switchable transponders when it opened its express lanes on I-110 and I -10. However, the switchable transponders are new to Bay Area toll customers. Therefore, the robust public education/outreach program that the agency plans to employ, at least a year prior to opening the facility, will have to include additional information about these toll transponders (i.e. how to obtain it, who needs to use it, how it works, how to reach customer service, etc.).

The Golden Gate Bridge Authority implemented another payment option, payment through pay-by-plate. The user will be required to open up an account to pay via their license plate. Our initial assessment indicates that this payment option is likely to encounter challenges since it will be difficult to distinguish the HOV and SOV users in an open/shared express lane facility, unless every vehicle is required to register as either an HOV or SOV vehicle. Staff will continue to evaluate and collaborate with other toll operators and report back to the committee on whether the I-580 Express Lanes will employ such payment option.

A Work Plan for the I-580 Express Lanes; presented in April 2013 I-580 PC meeting included a timeline for the approval of all toll policies and business operating rules, financial breakeven analysis, the SEMP; development of project delivery and financing strategies, completion of electronic toll system design, and development of a public education/outreach program. In addition, the policy matters/business rules will be discussed and adopted by the I-580 PC and Commission prior to implementation of the I-580 Express Lanes.

In summary, even though the "near continuous" access concept provides additional opportunities it is a relatively new concept for implementation in the region. Additional research, education and evaluation are necessary for effective implementation of such a concept for all future Alameda County Express Lanes, including the I-580 Express Lanes. Staff is committed to working closely with other likeminded agencies/industry experts to move forward and implement an effective electronic toll collection system strategy to effectively support a "near continuous" access express lane configuration.

RECENT ACTIVITIES

- Alameda CTC, URS, CDM Smith and ETC staff have been working towards revising ETC contract requirements to revise the express lane access configuration from "limited" to a "near continuous" approach and include additional tasks for implementing the electronic toll collection system for the Westbound I-580 Express.
- Continue to work on "zone tolling", pricing and automated violation strategies.
- Express Lane sign plans have been reviewed by Caltrans. Staff is working with design consultant teams and Caltrans to develop system design requirements.

UPCOMING ACTIVITIES

- Finalize contract negotiations with ETC – Target date June 2013
- ETC contract amendment – Target date July 2013 Commission Meeting
- Prepare Draft Concept Operations Plan – Target date June 2013
- Prepare Draft System Engineering Management Plan – Target date July 2013

FUNDING AND FINANCIAL STATUS

Combined Eastbound & Westbound Funding Plan for "near continuous" access

Project Phase	Funding Source ($ x million)							
	ARRA	Federal Earmark	RM2	TVTC	TCRP Deferred	Local (Meas. B)	TBD	Total
PA&ED			1.39	2.17	0.10			3.66
PS&E	0.70		0.11	0.93	3.10			4.84
Sys. Int.	6.80			0.68	1.47		8.05	17.00
ROW				0.37				0.37
Const. Support			2.55		0.05	1.47		4.07
Construct Cap		1.00		0.63	1.28		21.65	24.56
O&M						0.18	0.30	0.48
TOTAL	**7.50**	**1.00**	**4.05**	**4.78**	**6.0**	**1.65**	**30.00**	**54.98**
Total Project Cost: $54.98 M								

Note: An additional funding shortfall of $3M from the previous report is due to additional lighting required by Caltrans based on the Safety Review Committee's recommendations.

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I-580 Express Lane Projects Location map

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