



I-580 Express Lane Policy Committee Meeting Agenda Monday, October 8, 2018, 10:00 a.m.

Committee Chair:	Nate Miley, Alameda County, District 4	Executive Director:	Arthur L. Dao
Vice Chair:	David Haubert, City of Dublin	Staff Liaison:	Elizabeth Rutman
Members:	Scott Haggerty, John Marchand, Jerry Thorne	Clerk of the Commission:	Vanessa Lee
Ex-Officio:	Richard Valle, Pauline Cutter		

1. Call to Order/Pledge of Allegiance

2. Roll Call

3. Public Comment

4. Consent Calendar

Page/Action

4.1. [Approve September 10, 2018 I-580 Express Lane PC Meeting Minutes](#) 1 A

5. Regular Matters

5.1. [I-580 Express Lanes: Monthly Operations Status Update](#) 3 I

5.2. [Approve the Draft I-580 Express Lanes After Study Report to the Legislature](#) 13 A

6. Committee Member Reports

7. Staff Reports

8. Adjournment

Next Meeting: Monday, November 19, 2018

Notes:

- All items on the agenda are subject to action and/or change by the Commission.
- To comment on an item not on the agenda (3-minute limit), submit a speaker card to the clerk.
- Call 510.208.7450 (Voice) or 1.800.855.7100 (TTY) five days in advance to request a sign-language interpreter.
- If information is needed in another language, contact 510.208.7400. Hard copies available only by request.
- Call 510.208.7400 48 hours in advance to request accommodation or assistance at this meeting.
- Meeting agendas and staff reports are available on the [website calendar](#).
- Alameda CTC is located near 12th St. Oakland City Center BART station and AC Transit bus lines. [Directions and parking information](#) are available online.



Alameda CTC Schedule of Upcoming Meetings:

Commission Chair
Supervisor Richard Valle, District 2

Commission Vice Chair
Mayor Pauline Cutter,
City of San Leandro

AC Transit
Board President Elsa Ortiz

Alameda County
Supervisor Scott Haggerty, District 1
Supervisor Wilma Chan, District 3
Supervisor Nate Miley, District 4
Supervisor Keith Carson, District 5

BART
Director Rebecca Saltzman

City of Alameda
Mayor Trish Spencer

City of Albany
Councilmember Peter Maass

City of Berkeley
Mayor Jesse Arreguin

City of Dublin
Mayor David Haubert

City of Emeryville
Mayor John Bauters

City of Fremont
Mayor Lily Mei

City of Hayward
Mayor Barbara Halliday

City of Livermore
Mayor John Marchand

City of Newark
Councilmember Luis Freitas

City of Oakland
Councilmember At-Large
Rebecca Kaplan
Councilmember Dan Kalb

City of Piedmont
Vice Mayor Teddy Gray King

City of Pleasanton
Mayor Jerry Thorne

City of Union City
Mayor Carol Dutra-Vernaci

Executive Director
Arthur L. Dao

Description	Date	Time
Bicycle and Pedestrian Community Advisory Committee (BPAC)	October 18, 2018	5:30 p.m.
Alameda CTC Commission Meeting	October 25, 2018	2:00 p.m.
Alameda County Technical Advisory Committee (ACTAC)	November 8, 2018	1:30 p.m.
Finance and Administration Committee (FAC)	November 19, 2018	8:30 a.m.
I-680 Sunol Smart Carpool Lane Joint Powers Authority (I-680 JPA)		9:30 a.m.
I-580 Express Lane Policy Committee (I-580 PC)		10:00 a.m.
Planning, Policy and Legislation Committee (PPLC)		10:30 a.m.
Programs and Projects Committee (PPC)		12:00 p.m.
Independent Watchdog Committee (IWC)	November 19, 2018	5:30 p.m.
Paratransit Advisory and Planning Committee (PAPCO)	November 26, 2018	1:30 p.m.
Paratransit Technical Advisory Committee (ParaTAC)	January 8, 2019	9:30 a.m.

All meetings are held at Alameda CTC offices located at 1111 Broadway, Suite 800, Oakland, CA 94607. Meeting materials, directions and parking information are all available on the [Alameda CTC website](http://www.AlamedaCTC.org).



I-580 Express Lane Policy Committee Meeting Minutes

Monday, September 10, 2018, 10:00 a.m. **4.1**

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1. Call to Order/Pledge of Allegiance

2. Roll Call

A roll call was conducted. All members were present with the exception of Commissioner Miley.

Subsequent to the roll call:

Commissioner Miley arrived during item 5.1.

3. Public Comment

There were no public comments.

4. Consent Calendar

4.1. Approve the May 14, 2018 I-580 Express Lane PC meeting minutes.

4.2. I-580 Express Lanes: Monthly Operations Status Update

Commissioner Thorne moved to approve Consent Calendar. Commissioner Marchand seconded the motion. The motion passed with the following votes:

Yes: Cutter, Haggerty, Haubert, Marchand, Thorne, Valle

No: None

Abstain: None

Absent: Miley

5. Regular Matters

5.1. I-580 Express Lanes After Study Update

Kristen Villanueva presented the preliminary findings from the legislatively-required I-580 Express Lanes After Study. Ms. Villanueva stated that the Alameda CTC has been operating express lanes along I-580 since February 2016. AB 2032 (Dutra) authorized Alameda CTC to build and operate these lanes, and also required an "after" study of the express lanes to be submitted to the Legislature within three years of operating the facility, which would be by February 2019. Ms. Villanueva covered the key findings from the after study and concluded by informing the Committee that the report will be finalized for the Legislature, which will be submitted in late fall. She noted that staff will recommend the Commission to approve the report in October.

Commissioner Haggerty asked how the bottlenecks on the segments outside of the express lanes would be addressed. Art Dao responded that for I-580, a comprehensive work plan from the Bay Bridge to the county line will be presented in PPLC meeting. Mr. Dao stated that there is not a solution to solve the congestion over the Dublin Grade at this point but that the agency wants to move forward with a design alternatives assessment to evaluate potential options. Mr. Dao noted that over the Altamont Pass there is opportunity to expand I-580 and relieve congestion.

Commissioner Haggerty stated that providing tolls beyond Greenville could provide congestion relief; however, the Castro Valley grade is becoming an increasing problem and the agency needs to focus on relieving congestion in Castro Valley and San Leandro. Mr. Dao agreed that there is a problem with congestion over the Dublin Grade from SR 238 eastbound to I-680.

Commissioner Thorne asked has the agency considered what the traffic will look like with the Valley Link. Mr. Dao said Valley Link may be a solution for the I-580 corridor.

Commissioner Haubert suggested crafting a message for public consumption to inform them what is being done to relieve congestion in the I-580 and I-680 corridor.

This item was for information only.

6. Committee Member Reports

There were no committee reports.

6. Staff Reports

There were no staff reports.

7. Adjournment/ Next Meeting

The next meeting is:

Date/Time: Monday, October 8, 2018 at 10:00a.m.

Location: Alameda CTC Offices, 1111 Broadway, Suite 800, Oakland, CA 94607



Memorandum

5.1

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DATE: October 1, 2018

TO: I-580 Express Lane Policy Committee

FROM: Ashley Tam, Associate Transportation Engineer
Liz Rutman, Director of Express Lanes Implementation and Operations

SUBJECT: I-580 Express Lanes (PN 1373.002): Monthly Operation Update

Recommendation

This item is to provide the Commission with an update on the operation of the I-580 Express Lanes. This item is for information only.

Summary

The Alameda CTC is the project sponsor of the I-580 Express Lanes, located in the Tri-Valley corridor through the cities of Dublin, Pleasanton, and Livermore, which opened to traffic on February 19th and 22nd of 2016. See Attachment A for express lane operation limits.

The August 2018 operations report indicates that the express lane facility continues to provide travel time savings and travel reliability throughout the day. Express lane users typically experienced higher speeds and lesser average lane densities than the general purpose lanes, resulting in a more comfortable drive and travel time savings for express lane users.

Background

The I-580 Express Lanes, extending from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to the I-680 Interchange in the westbound direction, were opened to traffic on February 19th and 22nd of 2016 in the eastbound and westbound directions, respectively. Motorists using the I-580 Express Lanes facility benefit from travel time savings and travel reliability as the express lanes optimize the corridor capacity by providing a new choice to drivers. Single occupancy vehicles (SOVs) may choose to pay a toll and travel within the express lanes, while carpools, clean-air vehicles, motorcycles, and transit vehicles enjoy the benefits of toll-free travel in the express lanes.

An All Electronic Toll (AET) collection method has been employed to collect tolls. Toll rates are calculated based on real-time traffic conditions (speed and volume) in express and general purpose lanes and can change as frequently as every three minutes. California Highway Patrol (CHP) officers provide enforcement services and the California Department of Transportation (Caltrans) provides roadway maintenance services through reimbursable service agreements.

August 2018 Operations Update:

Nearly 826,000 express lane trips were recorded during operational hours in August, an average of approximately 35,900 daily trips. Table 1 presents the breakdown of trips based on toll classification and direction of travel. Pursuant to the Commission-adopted "Ordinance for Administration of Tolls and Enforcement of Toll Violations for the I-580 Express Lanes," if a vehicle uses the express lanes without a valid FasTrak® toll tag then the license plate read by the Electronic Tolling System is used to assess a toll either by means of an existing FasTrak account to which the license plate is registered or by issuing a notice of toll evasion violation to the registered vehicle owner. Approximately 62 percent of all trips by users without a toll tag are assessed tolls via FasTrak account.

Table 1. Express Lane Trips by Type and Direction

Trip Classification		Percent of Trips ¹
		August
By Type	HOV-eligible with FasTrak flex tag	44%
	SOV with FasTrak standard or flex tag	35%
	No valid toll tag in vehicle	21%
By Direction	Westbound	46%
	Eastbound	54%

1. Excludes "trips" by users that had no toll tag and either no license plate or one that could not be read by the Electronic Tolling System with sufficient accuracy that a toll could be assessed.

Express lane users typically experience higher speeds and lesser lane densities than the general purpose lanes. Lane density is measured by the number of vehicles per mile per lane and reported as Level of Service (LOS). LOS is a measure of freeway performance based on vehicle maneuverability and driver comfort levels, graded on a scale of A (best) through F (worst).

Attachment B presents the speed and density heat maps for the I-580 corridor during revenue hours for the six-month period from January 2018 – June 2018. These heat maps are a graphical representation of the overall condition of the corridor, showing the average speeds and densities along the express lane corridor and throughout the day for both the express and general purpose lanes, and are used to evaluate whether the express lane is meeting both federal and state performance standards. During these six months, the average speeds at each traffic sensor location in the westbound express

lane ranged from 55 to 70 mph during the morning commute hours (5 am to 11 am) with the lower speeds occurring between Isabel Avenue and Hacienda Road. The express lane operated at LOS C or better at most times, with a 90-minute period of LOS D experienced near Fallon Road and Isabel Ave in the morning commutes. By comparison, the general purpose lanes experienced average speeds as low as 45 mph and LOS D throughout longer sections of the corridor. During the evening commute, a small period of westbound reverse-commute congestion between Hacienda Road and San Ramon Road is observed from 4 pm to 6 pm, though the express lane continued to operate at LOS B or better during this time. Outside of the commute hours, westbound express lane users experience average speeds of 70 mph or higher and average LOS A.

In the eastbound direction, average express lane speeds from January 2018 through June 2018 ranged from 25 to 70 mph during the evening commute hours (2 pm – 7 pm) with the lowest speeds occurring at the eastern terminus of the express lanes, between Vasco Road and Greenville Road. Average express lane speeds throughout the rest of the day exceeded 70 mph. Most of the express lane corridor operates at LOS C or better during the evening commute hours, with limited sections of degraded LOS at the western end of the express lanes between 3 pm and 6 pm and at the eastern terminus between 3 pm and 7 pm. The express lanes averaged LOS B or better throughout the rest of the day in all locations. By comparison, the general purpose lanes experienced lower speeds and degraded levels of services for longer periods of time than the express lanes during the evening commute hours.

Table 2 presents the maximum posted toll rates to travel the entire corridor in each direction in August 2018, along with the average toll assessed to toll-paying users.

Table 2. Toll Rate Data

Month	Direction	Maximum Posted Toll (Travel Entire Corridor)	Average Assessed ¹ Toll (All Toll Trips)
August	Westbound	\$13.00 (4 of 23 days)	\$2.66
	Eastbound	\$12.00 (21 of 23 days)	\$3.69

¹ Assessed toll is the toll rate applied to non-toll-free trips and reflects potential revenue generated by the trip. Not all potential revenue results in actual revenue received.

Through August of Fiscal Year 2018-19, the I-580 Express Lanes recorded almost 1.58 million total trips. Total gross revenues received include \$2.6 million in toll revenues and \$580,000 in violation fees and penalties.

Fiscal Impact: There is no fiscal impact associated with the requested action.

Attachments

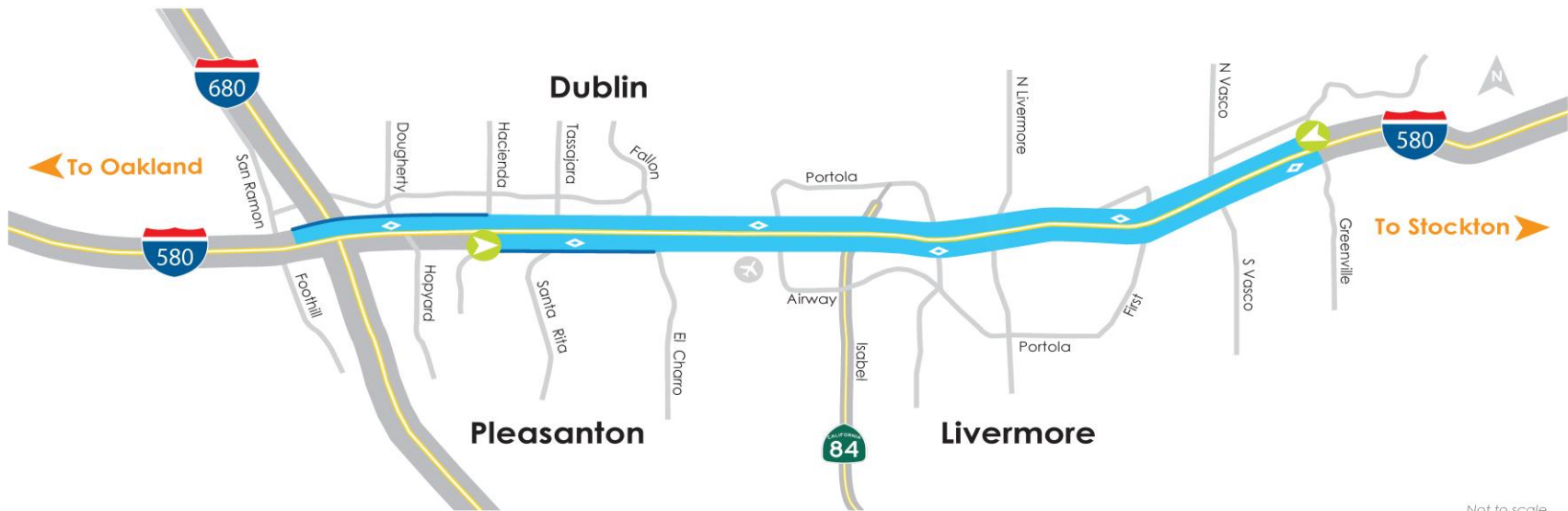
- A. I-580 Express Lanes Location Map
- B. I-580 Corridor Express Lanes Heat Maps January 2018 – June 2018

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I-580 Express Lanes Project Location Map

5.1A



Not to scale



Two Eastbound Express Lanes

Lanes begin at Hacienda

No entry/exit from eastbound express lanes from Hacienda to Fallon / El Charro.

Please note: For access to Santa Rita Road, do not enter express lanes.



One Westbound Express Lane

Lane begins at Greenville

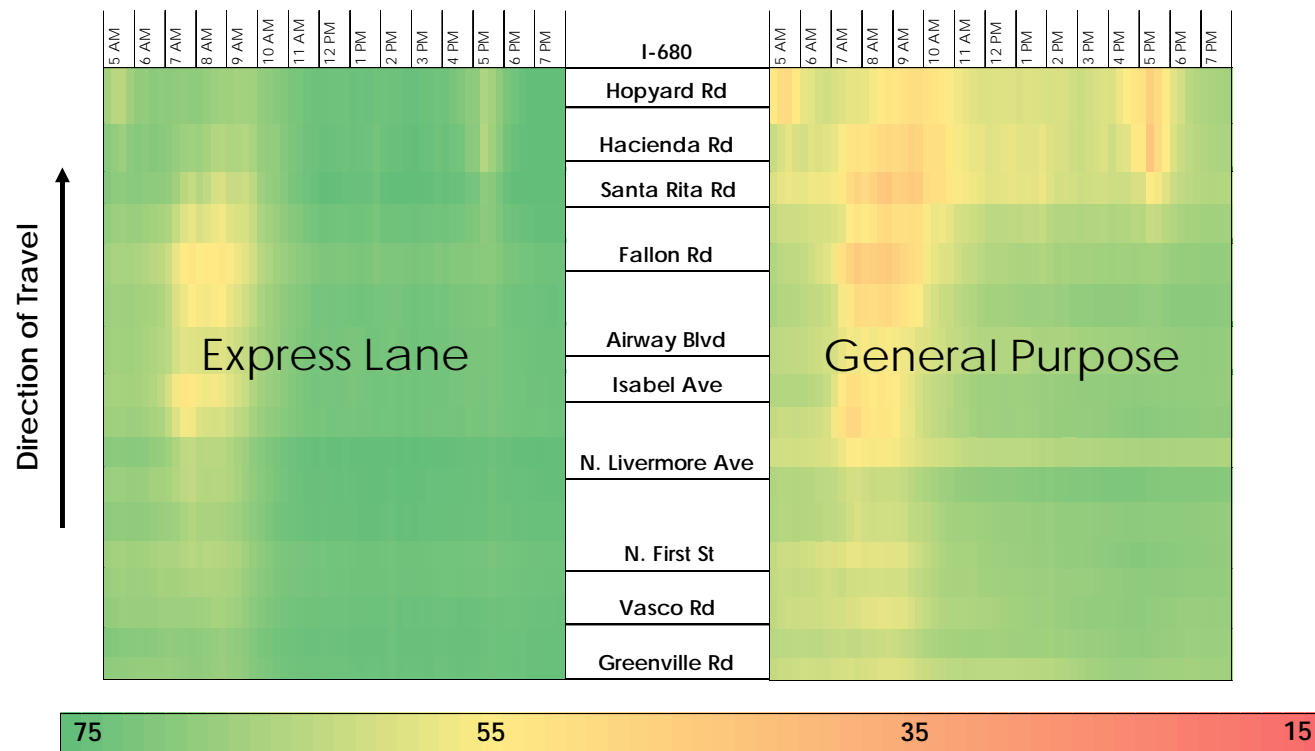
No entry/exit from westbound express lane from Hacienda to end.

Please note: For access to I-680 or Dougherty, exit express lane before Hacienda.

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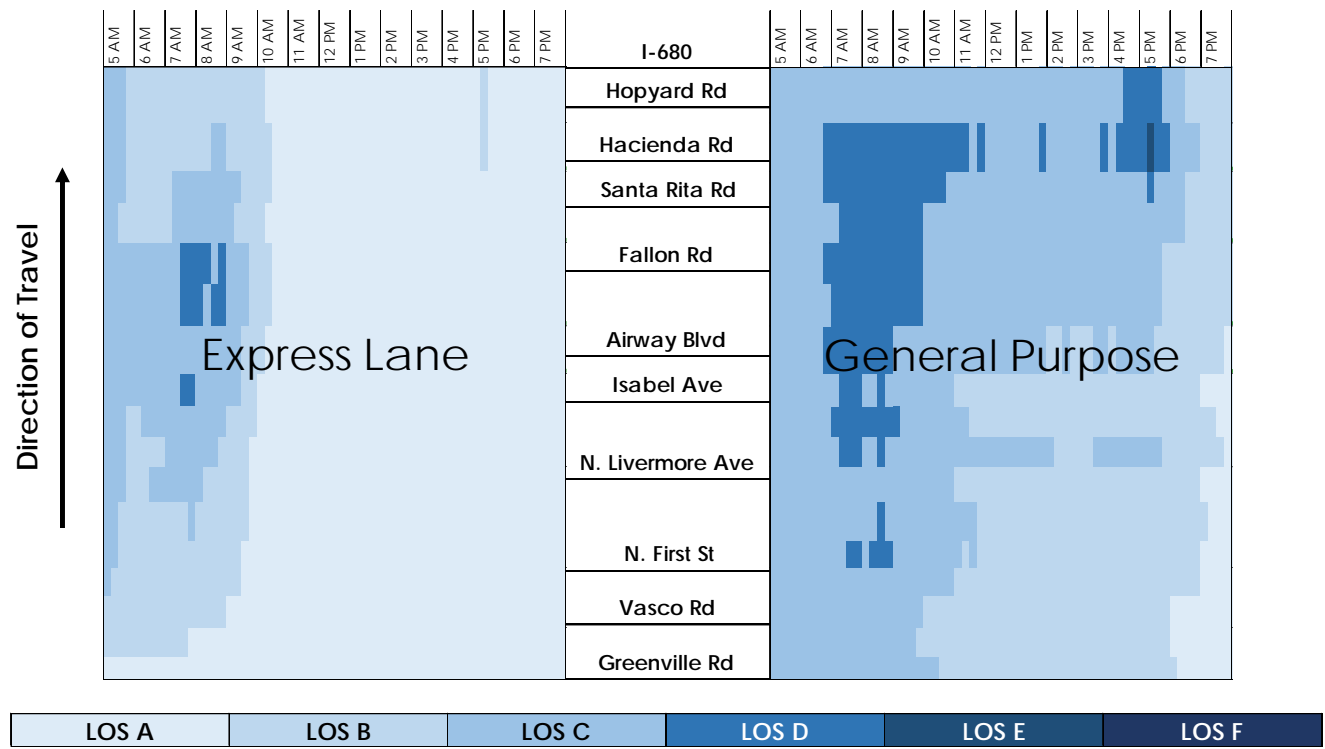
Westbound I-580 Corridor Speed Heat Maps

Monday-Friday, January 2018 – June 2018



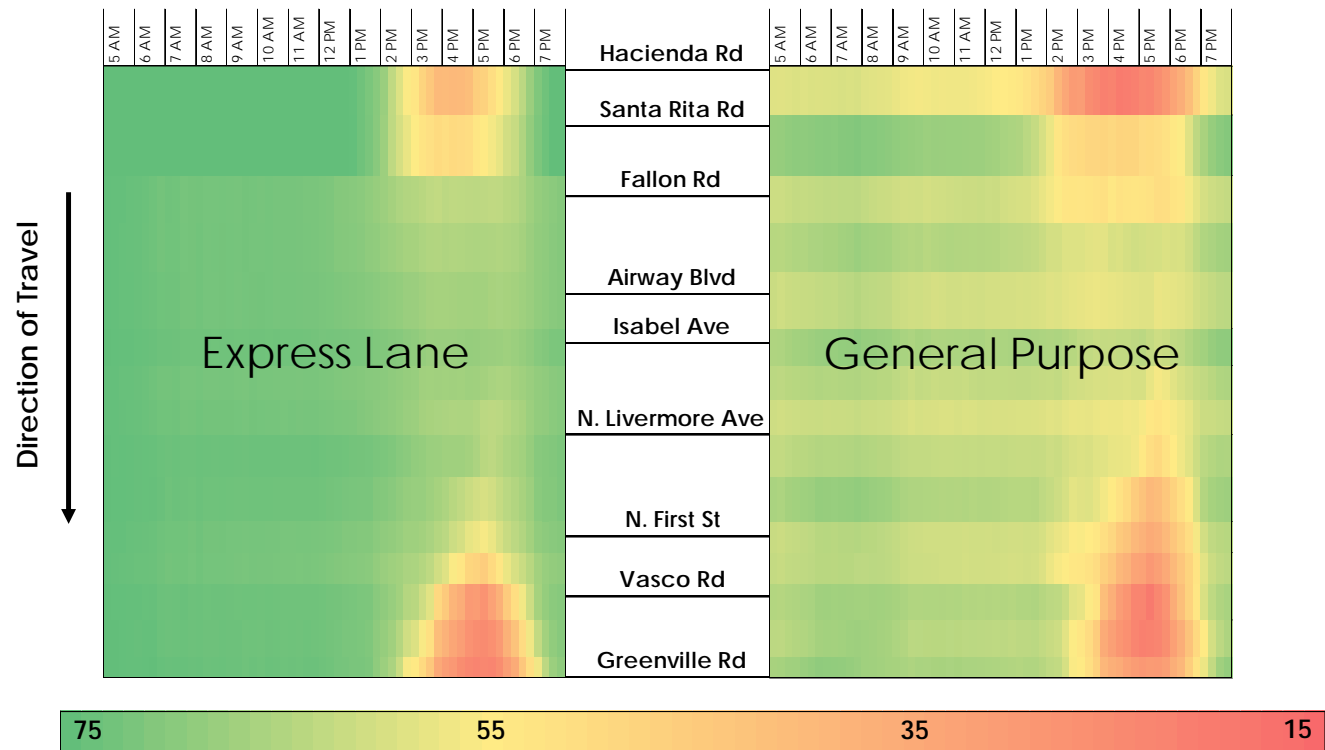
Westbound I-580 Corridor Density Heat Maps

Monday-Friday, January 2018 – June 2018



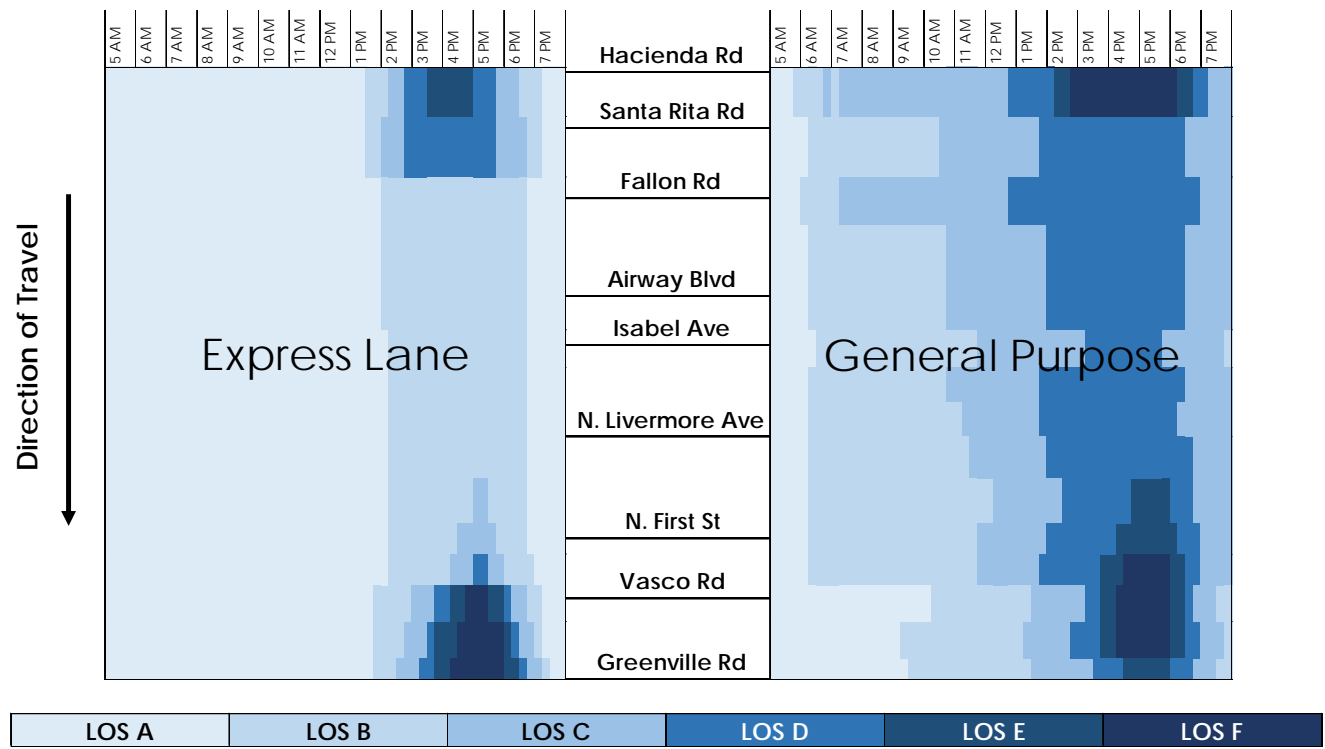
Eastbound I-580 Corridor Speed Heat Maps

Monday-Friday, January 2018 – June 2018



Eastbound I-580 Corridor Density Heat Maps

Monday-Friday, January 2018 – June 2018





Memorandum

5.2

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DATE: October 1, 2018

TO: I-580 Express Lane Policy Committee

FROM: Elizabeth Rutman, Director of Express Lanes Implementation and Operations
Kristen Villanueva, Senior Transportation Planner
Saravana Suthanthira, Principal Transportation Planner

SUBJECT: Approve the Draft I-580 Express Lanes After Study Report to the Legislature

Recommendation

It is recommended that the Committee approve the Draft I-580 Express Lanes After Study Report to the Legislature.

Summary

At the September 10, 2018 meeting of this Committee, staff presented the key findings of the I-580 Express Lanes After Study. An After Study is a requirement under AB 2032, which authorized Alameda CTC to operate the I-580 Express Lanes. Since last month's meeting, the study team has received feedback from both Caltrans and CHP and has finalized the report.

The legislative report expands upon the key findings presented in September and provides information on project goals, evaluation methodology, results by evaluation measure, and a conclusion of how the I-580 Express Lanes performed against the project goals. The draft report is available for review [here](#).

Staff will request approval of the Final I-580 Express Lanes After Study at the October Commission meeting before sending to the Legislature this fall.

Background

The I-580 Express Lanes (Project), extending from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to the I-680 overcrossing in the westbound direction, were opened to traffic on February 19 and 22, 2016 in the eastbound and westbound directions, respectively. The Project corridor is the second of two corridors authorized by AB 2032 for express lane operations in Alameda County. AB 2032 requires

an “after” study to be completed no later than three years after the Project opened to traffic and is codified in law as Streets and Highways Code Section 149.5 (g), which states:

Not later than three years after the administering agency first collects revenues from the program authorized by this section, the administering agency shall submit a report to the Legislature on its findings, conclusions, and recommendations concerning the demonstration program authorized by this section. The report shall include an analysis of the effect of the HOT lanes on the adjacent mixed flow lanes and any comments submitted by the Department of Transportation and California Highway Patrol regarding operation of the lane.

Caltrans and CHP reviewed the technical details of the evaluation and agreed with the findings. They offered suggestions for clarifying some aspects of the report, which have been incorporated into the draft report.

Draft I-580 Express Lanes After Study Report to the Legislature








The I-580 After Study report expands upon the key findings presented in September and provides details on project goals, evaluation methodology, results by evaluation measure, and a conclusion of how the I-580 Express Lanes performed against the project goals.

The focus of the legislative report is performance of the I-580 Express Lanes against the project goals. For purposes of this report, the study team compiled goals from the environmental documents for the I-580 Express Lanes and the authorizing legislation for express lanes in California. These documents and goals were developed before the express lanes were implemented on I-580. Based on this review, the goals for the I-580 Express Lanes are the following:

1. Provide congestion relief.
2. Project enhanced operational and safety improvements.
3. Expand available capacity for high-occupant vehicles (HOVs).
4. Expand the mobility options in the corridor.
5. Provide reliable travel time savings to express lane users.
6. Increase the efficiency of the transportation system by charging single occupant vehicles for use of available capacity without impacting carpool lane operations.
7. Maintain Level of Service (LOS) C in the express lanes.

Table 1 presents a high-level overview of the results of the after study compared to the project goals. A green check mark means the project met the goal whereas an orange check mark indicates the project partially met the goal. More detail is included in the draft report.

Table.1 I-580 Express Lanes After Study Performance

Project Goals		Did the Project meet its Goals?	
1	Provide congestion relief.		The project reduced overall travel times in the westbound AM peak direction by 5 minutes (28%) and in the eastbound PM peak direction by 3 minutes (19%). Annual vehicle hours of severe delay ¹ decreased by 151,000 vehicle-hours (47%).
2	Provide enhanced operational and safety improvements.		The project removed bottlenecks and reduced queuing from El Charro Road to Greenville Road in both directions. Collisions and number of fatal and injury collisions per million vehicle-miles traveled (severe collision rate) increased in the express lane corridor at similar rates as across Alameda County freeways and the I-880 corridor. Over the past year, there was a 5% decline in the severe collision rate in the express lane corridor.
3	Expand available capacity for HOVs.		The project added carpool capacity in both directions in the form of a new express lane in the westbound direction and a new express lane in the eastbound direction.
4	Expand the mobility options in the corridor.		Express lanes are faster and more reliable than the adjacent general purpose lanes, creating an attractive mobility option in the corridor.
5	Provide reliable travel time savings to express lane users.		Express lanes provide 2-4 minutes faster travel time than general purpose lanes on average. The variation of travel times is also lower in the express lanes than the general purpose lanes.
6	Increase the efficiency of the transportation system by charging single occupant vehicles for use of available capacity without impacting carpool lane operations.		The project improved travel time and reliability across all lanes during the AM and PM peak periods. The corridor carries 27-30% more vehicles in the AM peak period and up to 12% more vehicles in the PM peak period in the eastbound direction.
7	Maintain Level of Service (LOS) C in the express lanes.		The express lanes operate at LOS C in the AM and PM peak hours ¹
Notes			
1. Per Caltrans standard methodology, LOS was estimated for the peak hours which are 8am to 9am for the AM peak hour and 5 pm to 6 pm for the PM peak hour.			

Fiscal Impact: There is no fiscal impact associated with the requested action.

¹ Severe delay is considered to occur when average speeds are slower than 35 mph.

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