



## I-580 Express Lane Policy Committee Special Meeting Agenda Monday, September 9, 2019, 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:	<a href="#">Elizabeth Rutman</a>
Members:	Scott Haggerty, John Marchand, Jerry Thorne	Clerk of the Commission:	<a href="#">Vanessa Lee</a>
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. <a href="#">Approve July 8, 2019 I-580 Express Lane PC Meeting Minutes</a>	1	A
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### 5. Regular Matters

5.1. <a href="#">I-580 Express Lanes: Approve Amendment No. 1 to Cooperative Agreement with the Bay Area Toll Authority for Regional Customer Service Center Services for the I-580 Express Lanes</a>	3	A
5.2. <a href="#">I-580 Express Lanes Toll System Upgrade: Approve Cooperative Agreement with Caltrans</a>	9	A
5.3. <a href="#">I-580 Express Lanes (PN 1373.002): Monthly Operations Update</a>	11	I

### 6. Committee Member Reports

### 7. Staff Reports

### 8. Adjournment

Next Meeting: Monday, October 14, 2019

#### 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 for September 2019 through December 2019

**Commission Chair**

Supervisor Richard Valle, District 2

**Commission Vice Chair**Mayor Pauline Cutter,  
City of San Leandro**AC Transit**

Board Vice 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**

Vice President Rebecca Saltzman

**City of Alameda**

Mayor Marilyn Ezzy Ashcraft

**City of Albany**

Mayor Rochelle Nason

**City of Berkeley**

Mayor Jesse Arreguin

**City of Dublin**

Mayor David Haubert

**City of Emeryville**

Councilmember 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 Sheng Thao**City of Piedmont**

Mayor Robert McBain

**City of Pleasanton**

Mayor Jerry Thorne

**City of Union City**

Mayor Carol Dutra-Vernaci

**Executive Director**

Arthur L. Dao

### Commission and Committee Meetings

Time	Description	Date
2:00 p.m.	Alameda CTC Commission Meeting	September 26, 2019 October 24, 2019 December 5, 2019
9:00 a.m.	Finance and Administration Committee (FAC)	October 14, 2019 November 18, 2019
9:30 a.m.	I-680 Sunol Smart Carpool Lane Joint Powers Authority (I-680 JPA)	
10:00 a.m.	I-580 Express Lane Policy Committee (I-580 PC)	
10:30 a.m.	Planning, Policy and Legislation Committee (PPLC)	
12:00 p.m.	Programs and Projects Committee (PPC)	

### Advisory Committee Meetings

1:30 p.m.	Paratransit Advisory and Planning Committee (PAPCO)	September 23, 2019 November 25, 2019
1:30 p.m.	Alameda County Technical Advisory Committee (ACTAC)	October 10, 2019 November 7, 2019
5:30 p.m.	Independent Watchdog Committee (IWC)	November 18, 2019
5:30 p.m.	Bicycle and Pedestrian Advisory Committee (BPAC)	November 21, 2019

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, July 8, 2019, 10:00 a.m.

4.1

1111 Broadway, Suite 800, Oakland, CA 94607 • PH: (510) 208-7400 • [www.AlamedaCTC.org](http://www.AlamedaCTC.org)

## 1. Call to Order/Pledge of Allegiance

## 2. Roll Call

A roll call was conducted. All members were present.

## 3. Public Comment

There were no public comments.

## 4. Consent Calendar

### 4.1. Approve the May 13, 2019 I-580 Express Lane PC meeting minutes.

*Commissioner Haubert moved to approve consent calendar. Commissioner Marchand seconded the motion. The motion passed with the following votes:*

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

No: None

Abstain: None

Absent: None

## 5. Regular Matters

### 5.1. I-580 Express Lanes: Monthly Operations Status Update

Ashley Tam presented the I-580 Express Lanes monthly operations update. The update covered average trips by month, user trip breakdown, corridor speed and density heat maps for both directions of travel, and historical toll rates. She concluded by reviewing estimated gross toll revenues versus forecasted operating budget.

*This item was for information only.*

### 5.2. I-580 Toll System Upgrade Project (PN 1486.002, State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project (PN 1386.000), I-680 Express Lanes Project (PN 1369.000), I-580 Express Lane Operations (1373.002), and I-680 Express Lane Operations (1408.000): Approval of Professional Services Agreement A19-0009 and Approval of Amendment No. 2 to Professional Services Agreement A17-0001 with Kapsch TrafficCom USA, Inc.

Art Dao presented an overview of this item, requesting approval of the Professional services Agreement A19-0009 with Kapsch TrafficCom USA, Inc. (Kapsch) for Electronic Toll System Integration Services. He stated that the I-680 northbound express lane would be coming online next year along with a modernization of the existing southbound express lane. The 680/84 Interchange project includes a two mile extension of the express lane, and the 580 Express Lanes system integrator was

procured over 10 years ago but that contract no performance metrics. This award is an opportunity to consolidate the system integrator and day-t-o-day operations under one contract with a potential savings of up to \$15 million over 12 years.

Commissioner Haggerty asked to see a copy of the federal grant submitted for additional funds that may be used for this project. Mr. Dao stated that staff will provide him with the grant.

*Commissioner Haubert moved to approve this item. Commissioner Thorne seconded the motion. The motion passed with the following votes:*

Yes: Cutter, Haubert, Marchand, Thorne, Valle  
No: None  
Abstain: Miley, Haggerty  
Absent: None

**6. Committee Member Reports**

There were no committee reports.

**7. Staff Reports**

There were no staff reports.

**8. Adjournment/ Next Meeting**

The next meeting is:

Date/Time: Monday, September 9, 2019 at 10:00a.m.

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



# Memorandum

5.1

1111 Broadway, Suite 800, Oakland, CA 94607

• 510.208.7400

• www.AlamedaCTC.org

**DATE:** September 3, 2019

**TO:** I-580 Express Lane Policy Committee

**FROM:** Liz Rutman, Director of Express Lanes Implementation and Operations

**SUBJECT:** I-580 Express Lanes (PN 1373.002): Approve Amendment No. 1 to Cooperative Agreement with the Bay Area Toll Authority for Regional Customer Service Center Services for the I-580 Express Lanes

## Recommendation

It is recommended that the Commission approve and authorize the Executive Director to execute Amendment No. 1 to Cooperative Agreement I-580-EL-BAT-FY15-16 with the Bay Area Toll Authority for Regional Customer Service Center Services for the I-580 Express Lanes to extend the term of the Agreement until March 30, 2022 and amend the terms of reimbursable costs.

## Summary

Alameda CTC entered into a cooperative agreement with the Bay Area Toll Authority (BATA) for toll collection and customer services necessary to operate the I-580 Express Lanes in 2015. The current Agreement will expire on November 30, 2019. BATA requests that the Agreement be extended until March 30, 2022.

In addition, BATA is requesting modifications to several terms of the Agreement related to specific reimbursable costs. Because BATA provides Customer Service Center (CSC) services for all of the Bay Area Express Lanes, staff has negotiated these terms with BATA in coordination with the other Bay Area express lane operating agencies. This ensures equitability and consistency of sharing of joint costs and cost adjustments are automatically applied as additional express lane facilities begin operations. A summary of the amendment items is included in Table A.

The overall impact of these changes to the FY 2019-2020 operating costs of the I-580 Express Lanes associated with BATA CSC Services is estimated to be \$100,000, a 7% increase over the FY 2018-19 actual expenditures under this Agreement. However, these additional costs will decrease over time as new express lane facilities begin revenue operations and decrease the proportional share borne by the I-580 Express Lanes.

## Background

The Alameda CTC operates and maintains the I-580 Express Lanes. Tolls for solo drivers are collected through an All Electronic Toll (AET) collection method by the use of FasTrak® transponders; motorists without transponders are assessed a toll via the vehicle's license plate. Prior to the opening of the facility to traffic in February 2016, the Alameda CTC entered into a cooperative agreement with the Bay Area Toll Authority (BATA) for toll collection and customer services necessary to operate the I-580 Express Lanes as an AET facility. BATA is the only agency in the Bay Area that is set up to distribute FasTrak®/FasTrak flex® transponders (a.k.a. toll tags), maintain accounts, collect tolls, process violation penalties, and provide related customer services for the Bay Area. BATA, therefore, provides these back office services for all of the Bay Area toll facilities. The current Agreement will expire on November 30, 2019. BATA requests that the Agreement be extended until March 30, 2022.

In addition, BATA is requesting modifications to several terms of the Agreement related to specific reimbursement costs as outlined below. Because BATA provides back office services for all of the Bay Area Express Lanes, staff has negotiated these terms with BATA in coordination with the other Bay Area express lane operating agencies to ensure equitability and consistency of cost sharing of joint costs and cost adjustments automatically applied as additional express lane facilities begin operations. A summary of the amendment items is included in Table A.

### *I-580 Toll System Upgrade Project System Testing:*

Toll collection relies on electronic transfer of files between the I-580 Express Lanes toll system and the BATA CSC system implemented by BATA's consultant. When the I-580 Express Lanes were first, this Agreement included payment to BATA to have their consultant participate in the testing of this electronic transfer of files. Subsequently, anytime there is a change in consultant on either side of the exchange, testing of the electronic file transfers between the new consultants must be performed. In July 2019, the Commission selected Kapsch TrafficCom Transportation NA, Inc. (Kapsch) as the TSI for the I-580 Toll System Upgrade. Staff recommends amending the existing Agreement to include necessary testing of the new toll system's file exchange interface and ensure continued operation of the Express Lane facility throughout and after the upgrade project completion.

### *Clean Air Vehicle Enrollment Costs:*

Alameda CTC's current business rules permit vehicles with two or more persons (HOV2+) to travel toll free in the I-580 Express Lanes. Under California law, clean air vehicles (CAVs) with eligible decals issued by the Department of Motor Vehicle must be allowed to access the Express Lanes regardless of vehicle occupancy; such access may be allowed free of charge or at a reduced rate. Eligibility is determined by California Air Quality Resources Board. The current Ordinance for Administration of Tolls and Enforcement of Toll Violations for the I-580 Express Lanes authorizes CAVs to travel toll-free in the I-580 Express Lanes if the vehicle is displaying a qualifying DMV decal and the vehicles is carrying a valid FasTrak® Flex® transponder in the HOV2 or HOV3+ position. The latter requirement is necessary in order for the toll system to identify the vehicle as eligible for toll-free travel since the DMV decal is not electronically detectable. Use of the HOV setting makes it more difficult for CHP to enforce the express lanes as they now must look for a DMV decal as well as occupancy when assessing the status of a CAV.

To better facilitate enforcement of the Express Lanes, as well as support agencies throughout the state that intend to shift from toll-free to reduced-rate toll CAV policies, BATA is developing an enrollment program to allow CAV owners to register their CAV with their FasTrak account and obtain a new "CAV transponder" that will indicate to all toll systems within the state that the vehicle is a documented CAV. In conjunction with a recent state-mandated update, the I-580 Express Lanes toll system was modified to identify these new transponders to ensure such vehicles are assessed toll amounts in accordance with the I-580 Express Lanes business rules. At this time, staff is not recommending that Alameda CTC modify the I-580 Express Lanes business rules with respect to CAVs. Prior to any potential change to Alameda CTC's business rules regarding CAVs, the Commission would need to adopt a revised Ordinance for Administration of Tolls and Enforcement of Toll Violations for the I-580 Express Lanes. However, staff recommends approval of the requested amendment to include reimbursement to BATA for I-580 Express Lanes' calculated share of costs associated with BATA CSC staff and material costs for CAV toll tag enrollment and swap-out mailing for replacement tags for an existing account holder who is trading in an existing FasTrak tag for a new "CAV" tag. Alameda CTC's monthly share of additional startup costs shall be calculated based on the Alameda CTC proportion of Bay Area Express Lane transactions processed by the BATA CSC.

#### *Transaction Processing Costs:*

The I-580 Express Lanes toll system creates a trip record, or transaction, each time a vehicle uses the express lane. The current Cooperative Agreement includes fixed cost per transaction for each transponder-based transaction, each license plate image-based transaction, and each violation notice. These costs are incurred only for the first handling of the transaction, including the first violation notice generated by the BATA CSC and does not apply to subsequent handling of the transaction necessary for full transaction processing. The Agreement allows for review of the unit cost on an annual basis. BATA is now requesting that the Cooperative Agreement be amended to stipulate that these unit costs will be escalated beginning October 2019 according to the then current California Consumer Price Index (CPI) for San Francisco CMSA as published by the California Department of Finance, and annually thereafter, consistent with the BATA CSC contract costs.

#### *BATA CSC Operation and Maintenance Costs:*

The current Agreement includes reimbursement to BATA for Alameda CTC's share of operational and maintenance of software and hardware, and licensing fee associated with BATA CSC's services specifically related to the I-580 Express Lanes. Alameda CTC's current share is calculated as 13% of the total actual operations and maintenance cost. With this amendment, staff is recommending that Alameda CTC's monthly share of additional startup costs be calculated based on the Alameda CTC proportion of Bay Area Express Lane transactions processed by the BATA CSC.

#### *BATA CSC Accounting Specialist Cost:*

BATA is requesting that express lane operators reimburse BATA for the monthly cost associated with BATA CSC's accounting specialist support staff needs specifically related to the express lanes. The Agreement amendment would include that Alameda CTC reimburse BATA for its share of this monthly cost, with the cost share based on the Alameda CTC proportion of Bay Area Express Lane transactions processed by the BATA CSC.

## BATA Direct Costs:

The current Agreement includes reimbursement of BATA for direct staff costs, including overhead, expended by BATA for ongoing management and support of the Express Lanes. The Agreement allows for review of the unit cost on an annual basis. BATA is now requesting that the Cooperative Agreement be amended to increase this amount from \$5,500 per month to \$5,670 per month to account for increases in those costs since the Agreement was initially executed.

**TABLE A: Summary of Amendment Impacts to Cooperative Agreement I-580-EI-BATA-FY15-16**

<b>Agreement Item</b>	<b>Current Terms</b>	<b>Proposed Revised Terms</b>
Expiration Date	November 30, 2019	March 30, 2022
Testing Related to I-580 Toll System Upgrade Project	N/A	Not to exceed \$30,000
CAV Program Costs:	N/A	
CAV Application Validation		Calculated share \$6.350 each based on monthly express lane transaction share
CAV Tag Kit Assembly (replacement tags only)		Calculated share of \$3.099 each based on monthly express lane transaction share
CAV Tag Kit Postage (replacement tags only)		Calculated share of actual cost based on monthly express lane transaction share
Transaction Processing Costs:		Transaction costs, License Plate Image Based costs and Violation Notice costs will be escalated beginning October 2019 according to the then current California Consumer Price Index (CPI) for San Francisco CMSA as published by the California Department of Finance, and annually thereafter, consistent with the BATA CSC contract costs.
Transponder-Based Transactions	\$0.161 each	
License Plate Image-Based Transactions	\$0.161 each	
Violation Notice Costs	\$0.880 each	
BATA CSC Operation and Maintenance Costs	13% of Total Actual O&M Cost related to Express Lanes	Calculated share of (estimated \$19,287) Total Actual O&M Costs related to Express Lanes based on monthly express lane transaction share
BATA CSC Accounting Specialist Cost	N/A	Calculated share of (estimated \$6,309) per month cost based on monthly express lane transaction share
BATA Direct Costs	\$5,500 per month	\$5,670 per month
<b>TOTAL ESTIMATED ADDITIONAL COST FOR FY 2019-2020</b>		<b>\$100,000</b>



Cost Share Formula:

$$\text{Alameda CTC Cost Share} = \frac{\text{Alameda CTC Monthly number of Transactions}}{\text{Total Monthly number of Bay Area Express Lane Transactions for Alameda CTC}}$$

*Bay Area Infrastructure Financing Authority  
San Mateo Express Lanes Joint Powers Authority  
Santa Clara Valley Transportation Authority  
I – 680 Sunol Smart Carpool Lane Joint Powers Authority*

**Fiscal Impact:** Approval of Amendment No. 1 to the Agreement will encumber I-580 Toll Revenue funds for subsequent expenditure from September 1, 2019 through March 30, 2022 subject to the approval of the FY 2020-21 and FY 2021-22 operating budgets.

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# Memorandum

5.2

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**ApDATE:** September 3, 2019

**TO:** I-580 Express Lane Policy Committee

**FROM:** Liz Rutman, Director of Express Lanes Implementation and Operations

**SUBJECT:** I-580 Express Lanes Upgrade Project (PN 1486.000): Approve Cooperative Agreement with the Caltrans

## Recommendation

It is recommended that the Commission approve and authorize the Executive Director to execute a Cooperative Agreement with the California Department of Transportation (Caltrans) for the I-580 Express Lanes Toll System Upgrade Project.

## Summary

The Alameda CTC operates and maintains the I-580 Express Lanes and is implementing the I-580 Toll System Upgrade Project (Project). The Project will replace and/or upgrade most of the tolling equipment to improve enforcement and toll operations and make minor modifications to the associated toll signage. The Project is funded by I-580 Toll Revenues.

Since this work will be performed within the State Right-of-Way, a Cooperative Agreement is required to delineate the roles and responsibilities between Alameda CTC and Caltrans for the design and construction phases of the project, obtain necessary project approvals from Caltrans, and obtain the encroachment permit necessary for the Toll System Integrator to install the new toll equipment. The total cost of this Cooperative Agreement has a not-to-exceed budget of \$185,000.

## Background

The I-580 Express Lanes, extending from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to the I-580/I-680 Interchange in the westbound direction, were opened to traffic in February 2016. Motorists using the I-580 Express Lanes facility benefit from travel time savings and travel reliability compared to those in the general purpose lanes. An All Electronic Toll (AET) collection method has been employed to collect tolls.

The I-580 Express Lanes toll system, which was competitively procured in 2009 and put into revenue service in February 2016, now lacks technological advances in vehicle detection

and identification that would improve enforcement and increase toll revenues. In July 2019, the Commission selected Kapsch TrafficCom Transportation NA, Inc. (Kapsch) as the Toll System Integrator (TSI) for the I-580 Toll System Upgrade. The Project includes development of a new toll host system and replacement of some of the lane equipment to improve vehicle capture and association, thereby improving enforcement and increasing revenues.

As owner/operator of the state highway system (SHS), Caltrans must provide owner/operator approvals for the portions of the Project being deployed within the existing SHS right-of-way. The estimated cost of the Project elements within the SHS is \$4.8 million, which exceeds the limits for a pure encroachment permit. Through negotiations with Caltrans, the project has been granted an expedited process for project delivery but still requires a Cooperative Agreement for reimbursed oversight. Caltrans has proposed a not-to-exceed budget for this oversight work totaling \$185,000.

Staff recommend that the Commission approve and authorize the Executive Director to execute a Cooperative Agreement with Caltrans for the I-580 Express Lanes Toll System Upgrade Project with a not-to-exceed budget of \$185,000.

**Fiscal Impact:** Approval of the Cooperative Agreement will encumber \$185,000 of I-580 Toll Revenue funds for subsequent expenditure. *This* budget is included in the I-580 Express Lanes Toll System Upgrade project funding plan and has been included in the Alameda CTC Adopted FY 2019-2020 Operating and Capital Program Budget.



# Memorandum

5.3

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• 510.208.7400

• www.AlamedaCTC.org

**DATE:** September 3, 2019

**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 19<sup>th</sup> and 22<sup>nd</sup> of 2016. See Attachment A for express lane operation limits.

The June/July 2019 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 19<sup>th</sup> and 22<sup>nd</sup> 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.

### June/July 2019 Operations Update:

Approximately 696,000 and 749,000 express lane trips were recorded during operational hours in June and July, respectively, which is an average of approximately 34,400 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 75 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 <sup>1</sup>
		April/May
By Type	HOV-eligible with FasTrak flex tag	47%
	SOV with FasTrak standard or flex tag	33%
	No valid toll tag in vehicle	20%
By Direction	Westbound	44%
	Eastbound	56%

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 2019 through June 2019. 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 lanes are 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 50 to over 70 mph during the morning commute hours (5 am to 11 am) with the lower speeds occurring between Isabel Avenue and Santa Rita Road. The

express lane operated at LOS C or better at most times, with a short period of LOS D experienced near Fallon Road in the morning commute. By comparison, the general purpose lanes experienced average speeds as low as 45 mph and LOS D throughout longer sections of the corridor for longer periods of time. During this six-month period, the evening westbound reverse-commute congestion between Hacienda Road and San Ramon Road improved such that, outside of the commute hours, westbound express lane users experience average speeds of 65 mph or higher and average LOS A.

In the eastbound direction, average express lane speeds from January 2019 through June 2019 ranged from 20 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 65 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 June and July 2019, 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 <sup>1</sup> Toll (All Toll Trips)
June/July	Westbound	\$13.00 (3 of 42 days)	\$2.71
	Eastbound	\$12.00 (30 of 42 days)	\$3.74

<sup>1</sup> 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.

In Fiscal Year 2018-19, the I-580 Express Lanes recorded over 8.4 million total trips. Total gross revenues received include \$13.4 million in toll revenues and \$2.7 million in violation fees and penalties. Gross toll revenues in July 2019 include \$1.1 million of toll revenues and \$250,000 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 2019 – June 2019

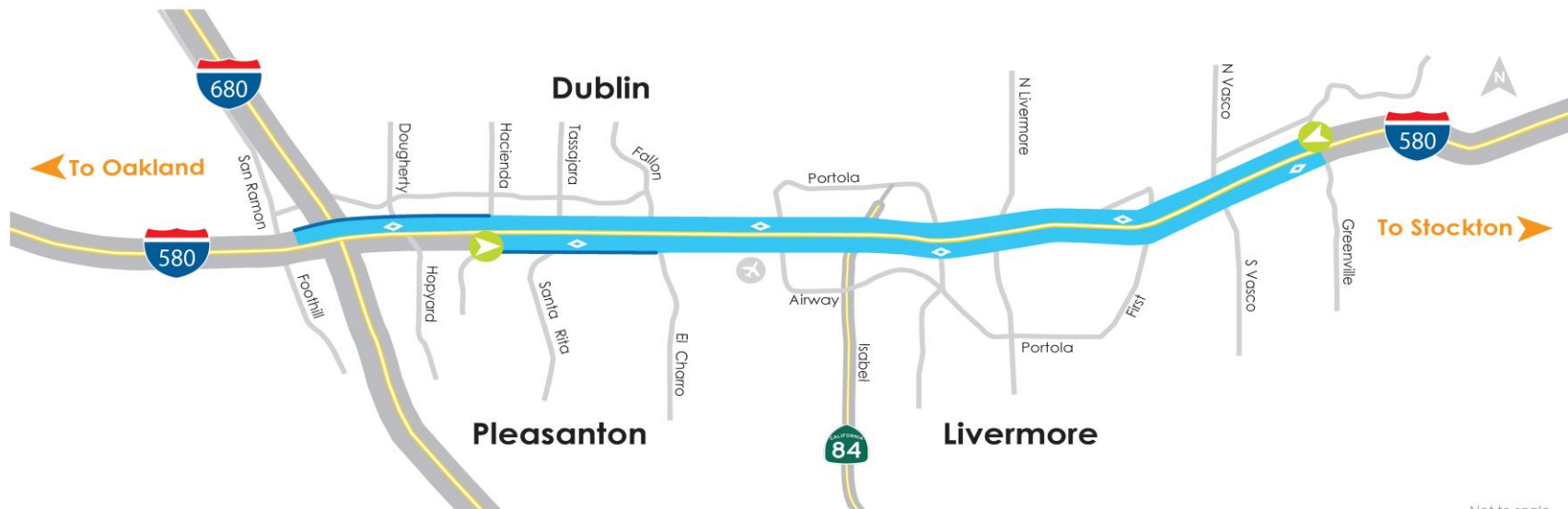
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# I-580 Express Lanes Location Map

5.3A



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



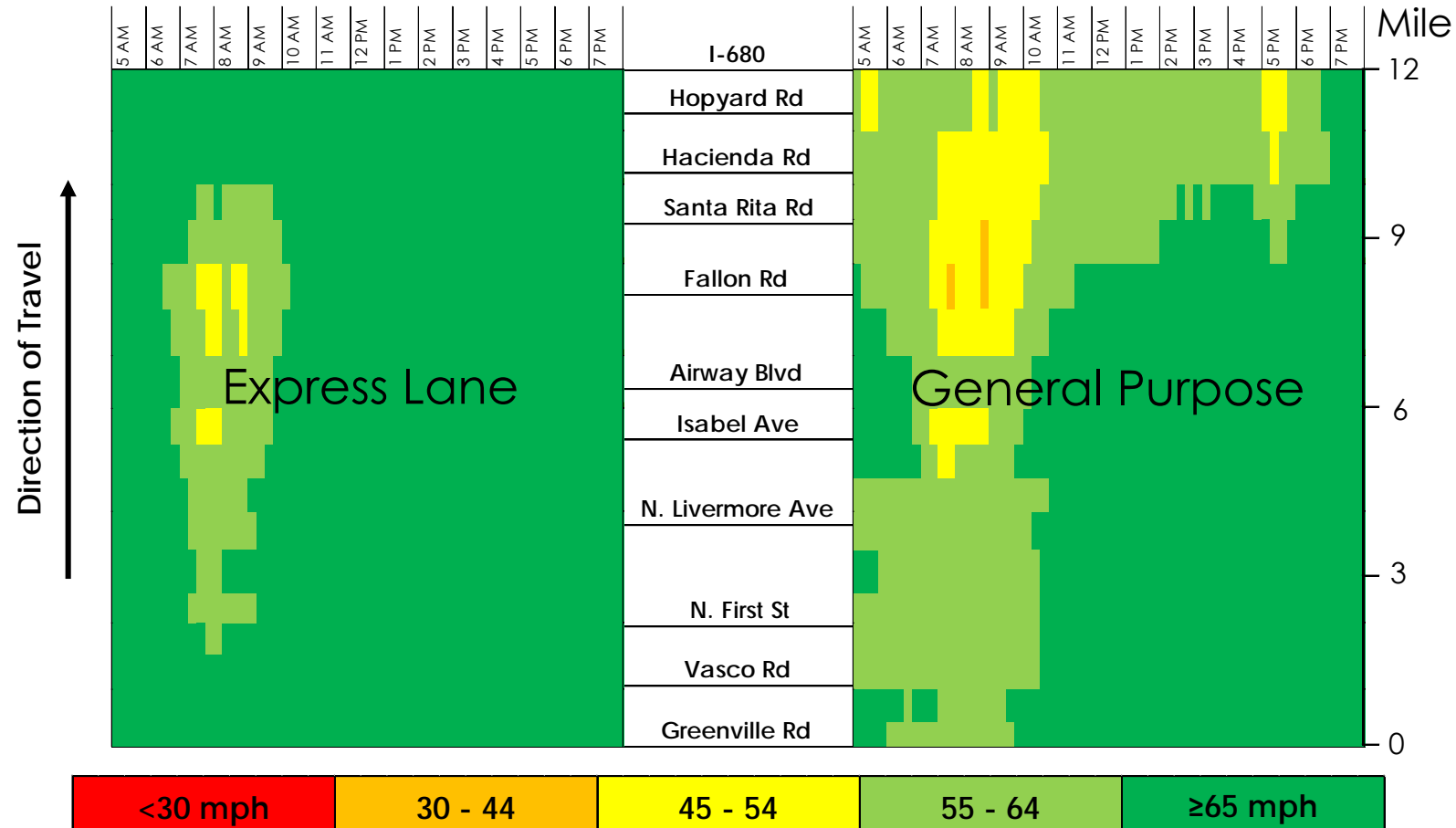
No entry/exit from westbound express lane from Hacienda to end.

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

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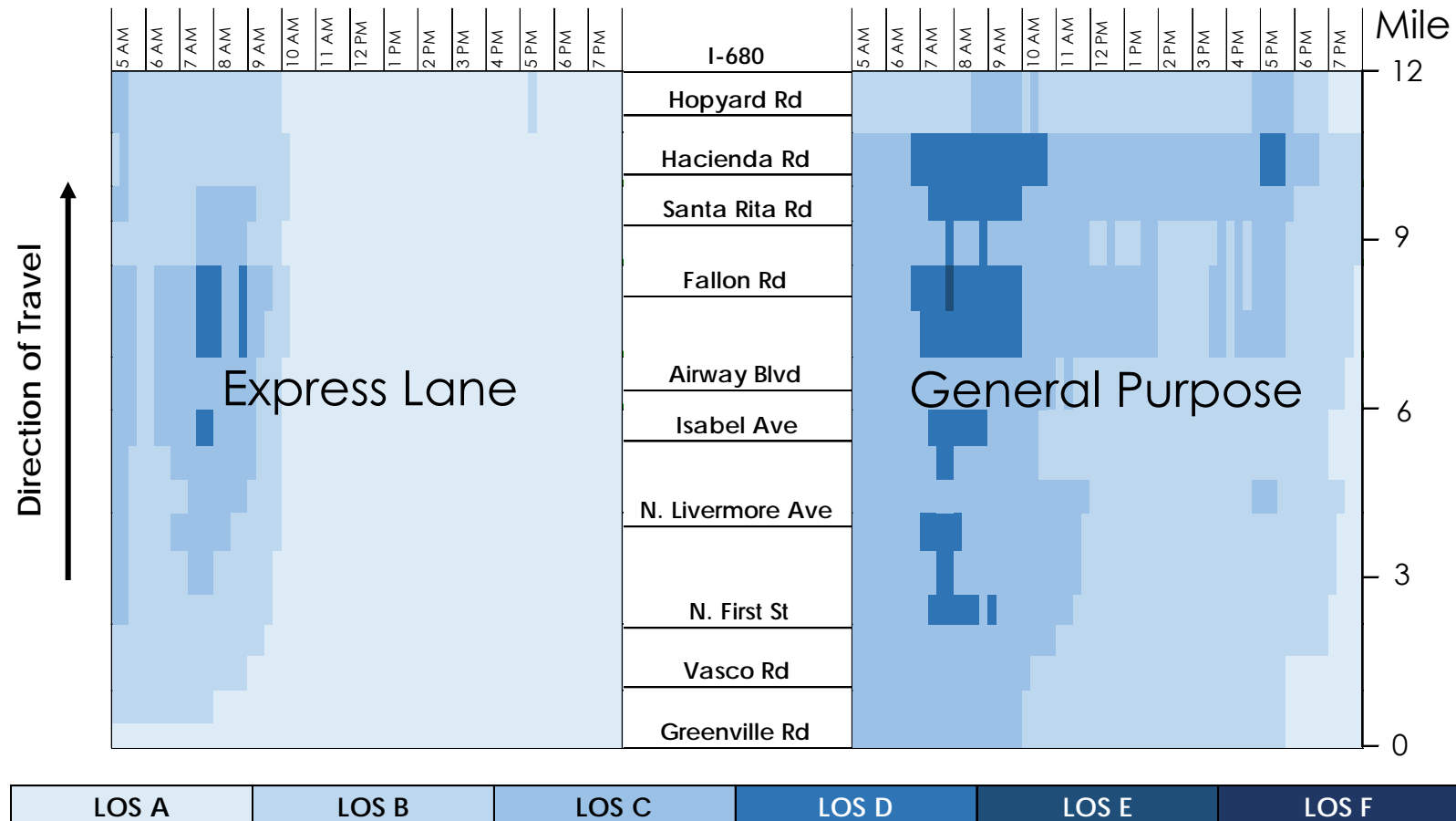
# Westbound I-580 Corridor Speed Heat Maps

Monday-Friday, January 2019 – June 2019



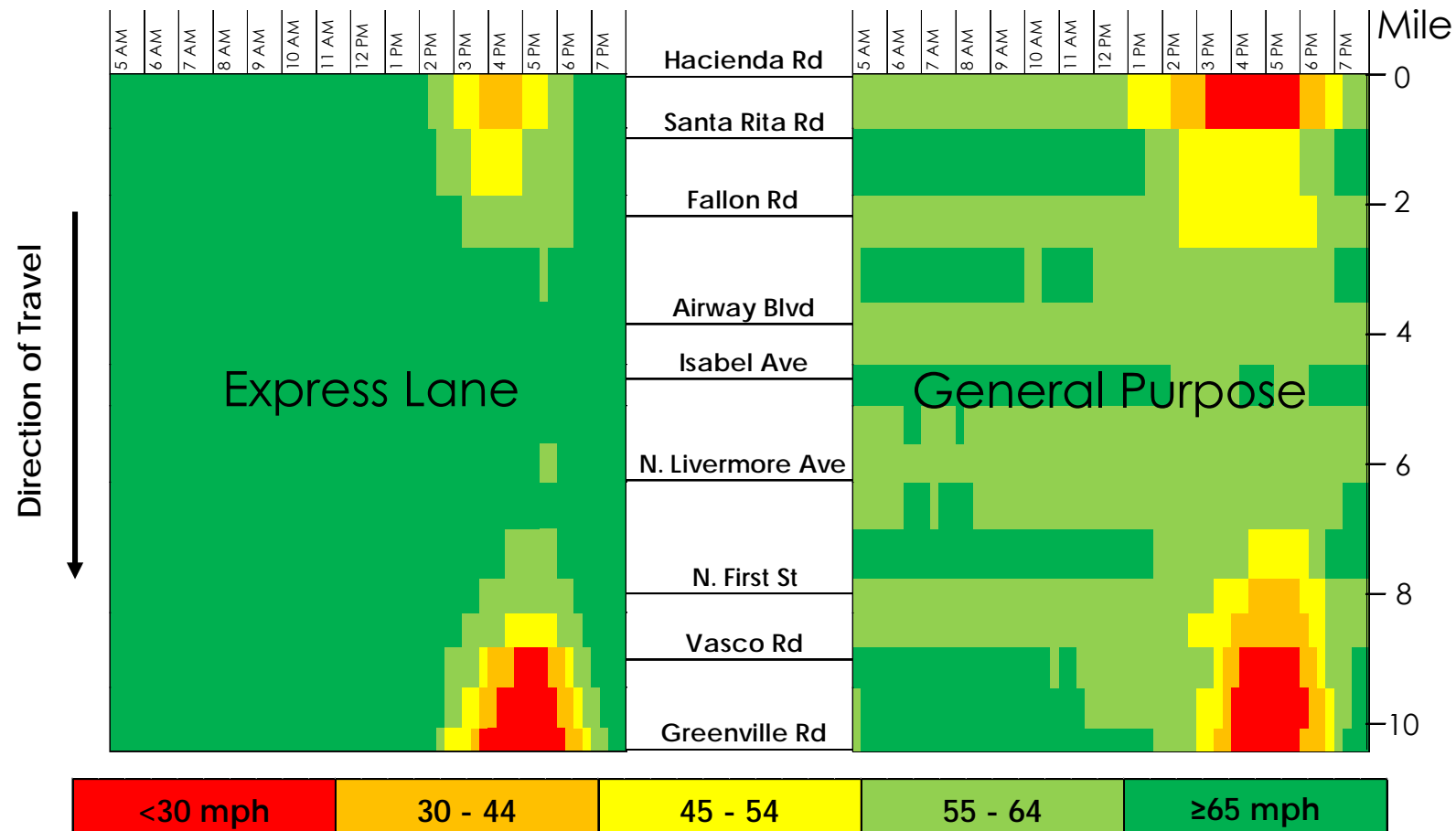
# Westbound I-580 Corridor Density Heat Maps

Monday-Friday, January 2019 – June 2019



# Eastbound I-580 Corridor Speed Heat Maps

Monday-Friday, January 2019 – June 2019



# Eastbound I-580 Corridor Density Heat Maps

Monday-Friday, January 2019 – June 2019

