

## **Meeting Agenda**

## **Bay Area Infrastructure Financing Authority**

Authority Members:

Jake Mackenzie, Chair Amy R. Worth, Vice Chair

Fe		
Wednesday, September 26, 2018	9:35 AM	Board Room - 1st Floor

This meeting is scheduled to be webcast live on the Metropolitan Transportation Commission's website: http://mtc.ca.gov/whats-happening/meetings and will take place at 9:35 a.m. or immediately following the 9:30 a.m. Bay Area Headquarters Authority meeting.

#### 1. Roll Call/Confirm Quorum

Quorum: A quorum of this Authority shall be a majority of its regular voting members (3).

#### 2. Consent Calendar

2a.	<u>18-0699</u>	Minutes of the July 25, 2018 meeting
	Action:	Authority Approval
	Attachments:	2a 07-25-2018 BAIFA Draft Minutes Ver2.pdf
2b.	<u>18-0700</u>	Express Lane Program Quarterly Report - 2nd Quarter 2018
	Action:	Information
	<u>Presenter:</u>	Jim Macrae
	Attachments:	2b Q2'2018 Express Lanes Qtrly Report.pdf

#### 3. Approval

3a.	<u>18-0701</u>	Express Lanes Toll System i. Contract Amendment and Contingency Increase - Express Lane Toll System Integrator: TransCore, LP (\$5,441,327 comprised of \$3,441,327 for contract and \$2,000,000 for contingency)
		A request to amend the Express Lane Toll System Integrator (TSI) contract with TransCore, LP to add the I-680 Northern Segment, Southbound Express Lane in Contra Costa County from Benicia to Walnut Creek (CC-680 North).
		ii. BAIFA Express Lanes Resolution No. 9, Revised - Express Lane Program Expenditure Plan
		A request to amend the Express Lane Program Expenditure Plan to accommodate the changes in the TransCore, LP contract.
	Action:	Authority Approval
	<u>Presenter:</u>	Jim Macrae
	<u>Attachments:</u>	3a_BAIFA_Reso-0009 and Contract_TransCore.pdf

4. Public Comment / Other Business

#### 5. Adjournment / Next Meeting

The next meeting of the Bay Area Infrastructure Financing Authority will be held on October 24, 2018 at 9:40 a.m. at the Bay Area Metro Center, 375 Beale Street, San Francisco CA 94105. **Public Comment:** The public is encouraged to comment on agenda items at Authority meetings by completing a request-to-speak card (available from staff) and passing it to the Authority secretary. Public comment may be limited by any of the procedures set forth in Section 3.09 of MTC's Procedures Manual (Resolution No. 1058, Revised) if, in the chair's judgment, it is necessary to maintain the orderly flow of business.

**Meeting Conduct:** If this meeting is willfully interrupted or disrupted by one or more persons rendering orderly conduct of the meeting unfeasible, the Chair may order the removal of individuals who are willfully disrupting the meeting. Such individuals may be arrested. If order cannot be restored by such removal, the members of the Authority may direct that the meeting room be cleared (except for representatives of the press or other news media not participating in the disturbance), and the session may continue.

**Record of Meeting:** Authority meetings are recorded. Copies of recordings are available at a nominal charge, or recordings may be listened to at MTC offices by appointment. Audiocasts are maintained on MTC's Web site (mtc.ca.gov) for public review for at least one year.

**Accessibility and Title VI:** MTC provides services/accommodations upon request to persons with disabilities and individuals who are limited-English proficient who wish to address Commission matters. For accommodations or translations assistance, please call 415.778.6757 or 415.778.6769 for TDD/TTY. We require three working days' notice to accommodate your request.

**可及性和法令第六章**: MTC 根據要求向希望來委員會討論有關事宜的殘疾人士及英語有限者提供服務/方便。需要便利設施或翻譯協助者,請致電 415.778.6757 或 415.778.6769 TDD / TTY。我們要求您在三個工作日前告知,以滿足您的要求。

**Acceso y el Titulo VI:** La MTC puede proveer asistencia/facilitar la comunicación a las personas discapacitadas y los individuos con conocimiento limitado del inglés quienes quieran dirigirse a la Comisión. Para solicitar asistencia, por favor llame al número 415.778.6757 o al 415.778.6769 para TDD/TTY. Requerimos que solicite asistencia con tres días hábiles de anticipación para poderle proveer asistencia.

Attachments are sent to Authority members, key staff and others as appropriate. Copies will be available at the meeting.

All items on the agenda are subject to action and/or change by the Authority. Actions recommended by staff are subject to change by the Authority.



## Metropolitan Transportation Commission

## Legislation Details (With Text)

File #:	18-0699	Version:	1	Name:	
Туре:	Minutes			Status:	Consent
File created:	8/23/2018			In control:	Bay Area Infrastructure Financing Authority
On agenda:	9/26/2018			Final action:	
Title:	Minutes of the	July 25, 20	18 me	eeting	
Sponsors:					
Indexes:					
Code sections:					
Attachments:	<u>2a_07-25-201</u>	8_BAIFA_D	raft_N	<u> Minutes_Ver2.pdf</u>	
Date	Ver. Action By			Actio	n Result

### Subject:

Minutes of the July 25, 2018 meeting

#### **Recommended Action:**

Authority Approval

Bay Area Metro Center 375 Beale Street San Francisco, CA 94105



## **Meeting Minutes**

## **Bay Area Infrastructure Financing Authority**

Authority Members:

Jake Mackenzie, Chair Amy R. Worth, Vice Chair

Federal D. Glover, Scott Haggerty, James P. Spering Non-Voting Member: James E. Davis

Wednesday, July 25, 2018 10:05 AM	Board Room - 1st Floor
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#### Call Meeting to Order

#### 1. Roll Call/Confirm Quorum

Present: 5 - Commissioner Glover, Commissioner Haggerty, Chair Mackenzie, Commissioner Spering and Vice Chair Worth

Non-Voting Member Absent: James E. Davis

#### 2. Consent Calendar

Approval of the Consent Calendar

Upon the motion by Commissioner Spering and the second by Commissioner Haggerty, the Consent Calendar was unanimously approved by the following vote:

- Aye: 5 Commissioner Glover, Commissioner Haggerty, Chair Mackenzie, Commissioner Spering and Vice Chair Worth
- **2a.** <u>18-0564</u> Minutes of the June 27, 2018 meeting

Action: Authority Approval

 2b.
 18-0565
 Contract Change Order - I-880 Express Lanes Civil Construction Contract: Bay Cities Paving and Grading (\$3,000,000)

Action: Authority Approval

Presenter: Angela Louie

 2c.
 18-0599
 Agreement - Contract Allocation - Express Lanes Operations and Maintenance: Caltrans (\$600,000)

 Action:
 Authority Approval

<u>Presenter:</u> Lisa Klein

- 3. Approval
- **3a.**<u>18-0566</u>BAIFA Resolution No. 9, Revised Express Lane Program Expenditure<br/>Plan

Updates the Expenditure Plan to reflect (1) new funding to connect Caltrans freeway management equipment on I-880 to the backhaul fiber communications network (Backhaul) and (2) updated costs for certain corridors.

- Action: Authority Approval
- Presenter: Lisa Klein

Upon the motion by Commissioner Spering and the second by Vice Chair Worth, BAIFA Resolution No. 9, Revised - Express Lane Program Expenditure Plan was unanimously adopted. The motion carried by the following vote:

- Aye: 5 Commissioner Glover, Commissioner Haggerty, Chair Mackenzie, Commissioner Spering and Vice Chair Worth
- 4. Public Comment / Other Business
- 5. Adjournment / Next Meeting

The next meeting of the Bay Area Infrastructure Financing Authority will be held on September 26, 2018 at 10:10 a.m. at the Bay Area Metro Center, 375 Beale Street, San Francisco CA 94105.



## Metropolitan Transportation Commission

## Legislation Details (With Text)

File #:	18-0700	Version:	1	Name:		
Туре:	Report			Status:	Consent	
File created:	8/23/2018			In control:	Bay Area Infrastructure Financing Aut	thority
On agenda:	9/26/2018			Final action:		
Title:	Express Lane I	Program Qu	larter	ly Report - 2nd Q	uarter 2018	
Sponsors:						
Indexes:						
Code sections:						
Attachments:	<u>2b_Q2'2018_E</u>	xpress_Lar	nes_C	<u>Qtrly_Report.pdf</u>		
Date	Ver. Action By			Actio	n	Result

#### Subject:

Express Lane Program Quarterly Report - 2nd Quarter 2018

#### Presenter:

Jim Macrae

#### **Recommended Action:**

Information



Bay Area Infrastructure Financing Authority Bay Area Metro Center 375 Beale Street, Suite 800 San Francisco, CA 94105 TEL 415.778.6700 WEB www.mtc.ca.gov

## Memorandum

TO: BAIFA

FR: Executive Director

DATE: September 12, 2018

W. I. 6840

RE: <u>Express Lanes Program Quarterly Report – 2<sup>nd</sup> Quarter 2018</u>

MTC issues Express Lanes Program reports on a quarterly basis. The quarterly report summarizes major developments, project schedules and risks, and compares forecast costs with the Express Lanes Program Expenditure Plan approved by BAIFA as well as the operational performance of BAIFA's open express lanes. The attached report covers the second quarter of 2018, April 1 to June 30.

Key accomplishments in the second quarter and current work activities are summarized by express lane in the 'Program Highlights' section of the quarterly report. I would like to draw your attention to a few milestones – recently accomplished and on the horizon:

- I-680 Contra Costa Southern Segment Performance highlights include:
  - Express lane usage was 2.3 million trips in the second quarter, and 6.3 million trips for the fiscal year ending June 30, 2018.
  - 37 percent of trips were by vehicles declared as carpools. Vehicles without FasTrak<sup>®</sup> accounts represented 6 percent of all trips.
  - In the peak hour of the peak period, express lane users traveled 11 to 12 miles per hour faster on average than those in the general purpose lanes in June.
  - Peak period tolls paid were more consistent across the months in the quarter, compared to the first quarter. In the northbound direction, the average paid toll peaked at \$7.10 around 4 p.m. in June. The average paid toll in the southbound direction was slightly lower, peaking at \$5.80 around 8 AM in May. In the middle of the day, it was consistently less than \$1.00.
  - The highest posted toll to travel the entire corridor during the quarter was \$8.50 in both the a.m. and p.m. peak period in the northbound direction and the a.m. peak period in the southbound direction.
- **I-880 Alameda** The express lanes work to be delivered through Caltrans' median barrier contract, which included a majority of the more risky work for the sign structure foundations, is complete. The civil contractor continues construction work on the remaining express lane elements. A change order will be executed for the civil contractor to install fiber laterals to connect Caltrans freeway management equipment to the communications backhaul. The toll system integrator began work recently.

- I-680 Contra Costa Northern Segment Southbound The Contra Costa Transportation Authority opened bids for civil construction in June and awarded a contract in July. Ground-breaking is anticipated in September.
- **I-80 Solano** The Solano Transportation Authority (STA) is completing final design activities so the project is shelf-ready. MTC and STA staff will continue to seek nearly \$200 million to build the project.
- Toll System Staff is negotiating with the toll system integrator, Transcore, LP (TransCore), on a contract amendment to reflect increased contract scope and duration and is seeking BAIFA's approval for a contract amendment at the September meeting. TransCore's scope has grown to include the I-680 Contra Costa Northern Segment Southbound (not in the original contract) and some work shifted from the civil and backhaul contracts. The original TransCore contract anticipated all express lanes would be in operation by fall 2017. With delays on I-880 due to coordination with Caltrans paving and median barrier work and the addition of the I-680 Contra Costa Northern Segment Southbound, the completion date for TransCore's implementation work will be sometime in 2021. These changes are discussed further in Agenda Item 3a.

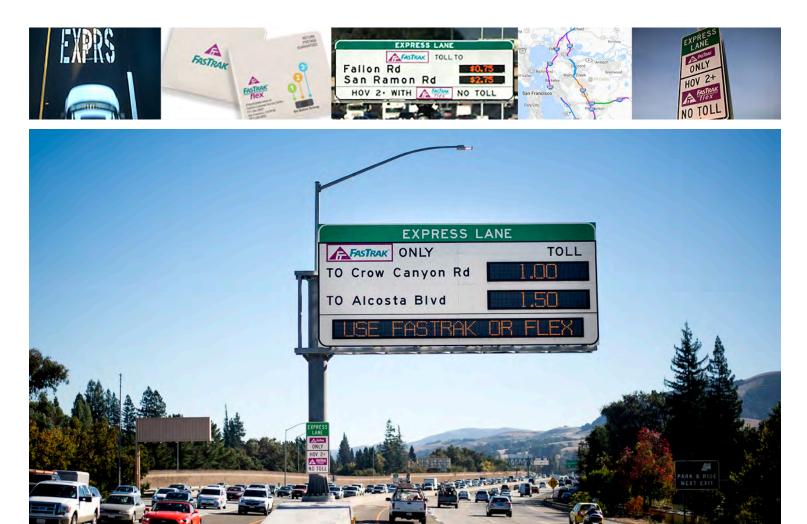
Steve Heminger

SH:lk Attachment: Quarterly Report

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# BAY AREA **EXPRESS LANES**



MTC Express Lanes Quarterly Report 2<sup>nd</sup> Quarter, April - June, 2018

Submitted: September 2018





METROPOLITAN TRANSPORTATION COMMISSION

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# I. PROGRAM HIGHLIGHTS

The purpose of this report is to summarize the progress of delivering Metropolitan Transportation Commission (MTC) Express Lanes. The report covers the second quarter of 2018, April 1 to June 30.

The California Transportation Commission (CTC) approved MTC's application to implement and operate its 270-mile express lane network on October 27, 2011. Soon thereafter, work began to environmentally clear the first phase of express lane conversion projects and produce a Concept of Operations describing how the Express Lanes will operate. The first of MTC's express lanes opened in October 2017 on I-680 in Contra Costa County. Several additional projects are at varying stages of development.

Project Development & Construction	2 <sup>nd</sup> Quarter 2018 Highlights	Current Activities			
I-880 Alameda (ALA-880) San Leandro to Milpitas Hegenberger Road/Lewelling Boulevard to Dixon Landing Road	<ul> <li>Civil Infrastructure installation from Dixon Landing Rd. to Fremont Blvd. was completed.</li> <li>Backhaul fiber for the southern portion of the project was completed.</li> <li>MTC's express lanes scope of work to be delivered through Caltrans' median barrier contract was completed, including barrier demolition, express lane sign structure foundations and light foundations.</li> <li>Staff kept residents and stakeholders in the I-880 corridor informed about express lane construction.</li> </ul>	<ul> <li>The express lane civil contractor will continue work on infrastructure installation and PG&amp;E service connections in the area from Fremont Blvd. to SR 92, which is 75% complete.</li> <li>The express lanes civil contractor will continue to install a retaining wall in the freeway shoulder near Hacienda Ave. in Hayward.</li> <li>Backhaul fiber work for the northern portion of the project is underway.</li> <li>The toll system integrator will begin work.</li> <li>In July, funds were added to the budget for installation of fiber laterals to connect Caltrans freeway management equipment to the communications backhaul within the I-880 Express Lanes project limits. Caltrans plans to complete design in August 2018. The work will be incorporated into the I-880 civil construction contract as a change order.</li> <li>Monthly construction notices and ramp closure/detour notices continue to be sent.</li> </ul>			
I-680 Contra Costa Southern Segment (CC-680 South) Walnut Creek to San Ramon Livorna Road/Rudgear Road to Alcosta Boulevard	<ul> <li>See Appendix C for second quarter performance data.</li> </ul>	<ul> <li>Project complete; see Appendix B for archived summary.</li> </ul>			
I-680 Contra Costa Northern Segment Southbound (CC-680 North SB) Martinez to Walnut Creek <i>Marina Vista Boulevard to Rudgear</i> <i>Road/SR 242</i>	<ul> <li>CCTA opened civil construction bids in June 2018.</li> <li>A public meeting to review replacement planting conceptual designs was held in June 2018.</li> </ul>	<ul> <li>The toll system integrator is working on the 100% design package for the toll system.</li> <li>While PG&amp;E utility relocation is complete, Wave Communication guy wire relocation for utility poles is ongoing.</li> <li>CCTA will award a civil construction contract in July 2018.</li> <li>The replacement planting design will be updated to incorporate public feedback.</li> <li>Staff is preparing a contract change order for the backhaul contractor to reroute in-use backhaul fiber in Walnut Creek prior to lane widening. Reroute design is planned for completion in summer 2018.</li> </ul>			

Project Development & Construction	2 <sup>d</sup> Quarter 2018 Highlights	Current Activities
I-80 Solano (SOL-80) Fairfield to Vacaville <i>Red Top Road to I-505</i>	• The project reached the Ready-to-List milestone in April 2018.	• The project team is completing final remaining design activities so that the project will be shelf-ready should construction funds become available.
Program Management	<ul> <li>Staff finalized the Fiscal Year 2018/19 Operating Budget.</li> <li>Staff presented to local transportation stakeholder groups about I-680 Contra Costa Express Lanes performance.</li> <li>Staff coordinated with other public agency staff on the possibility of the future US-101 express lanes in San Mateo County being owned and operated by BAIFA.</li> </ul>	<ul> <li>Staff will begin planning and working with partner express lane agencies to determine how to benefit from synergies of similar work.</li> <li>Staff is developing a program of strategic and technical research for the coming year.</li> </ul>
Toll System	<ul> <li>In May 2018, the integrator completed the Disaster Recovery Test to demonstrate the failover process to a redundant toll system is functional.</li> </ul>	<ul> <li>Staff continues to work with the toll system integrator to address system bugs and prepare for I-680 Southern Segment Operations Testing in September 2018.</li> <li>Staff is negotiating with the toll system integrator on expansion of the contract scope and for the extended duration of the contract through the opening of the I-880 and I-680 Northern Segment Southbound projects in 2019 and 2021, respectively. Staff anticipates updating the expenditure plan accordingly.</li> </ul>

# II. PROGRAM OVERVIEW

# A. Program Description

MTC and partner agencies are implementing a regional network of express lanes called Bay Area Express Lanes. Upon completion, Bay Area Express Lanes will comprise 600 miles of express lanes operated by MTC, the Valley Transportation Authority (VTA), the Alameda County Transportation Commission (Alameda CTC) and the Sunol Smart Corridors Joint Powers Authority (Sunol JPA), and potentially by San Mateo County transportation agencies.

Primary objectives for Bay Area Express Lanes include:

- Create a seamless network of HOV lanes to encourage carpools, vanpools and express buses;
- Make the best use of HOV lane capacity;
- Provide reliable travel times for solo drivers; and
- Better manage all lanes to keep traffic moving.

MTC's portion of the Bay Area Express Lanes, referred to as MTC Express Lanes, will include 270 miles of express lanes – 150 miles of converted high occupancy vehicle (HOV) lanes and 120 miles of new lanes – on I-80 in Alameda, Contra Costa and Solano Counties; I-880 in Alameda County; I-680 in Contra Costa and Solano counties; and the westbound approaches to the Bay Bridge, San Mateo Bridge and Dumbarton Bridge.

Appendix B includes an overview of how express lanes operate.

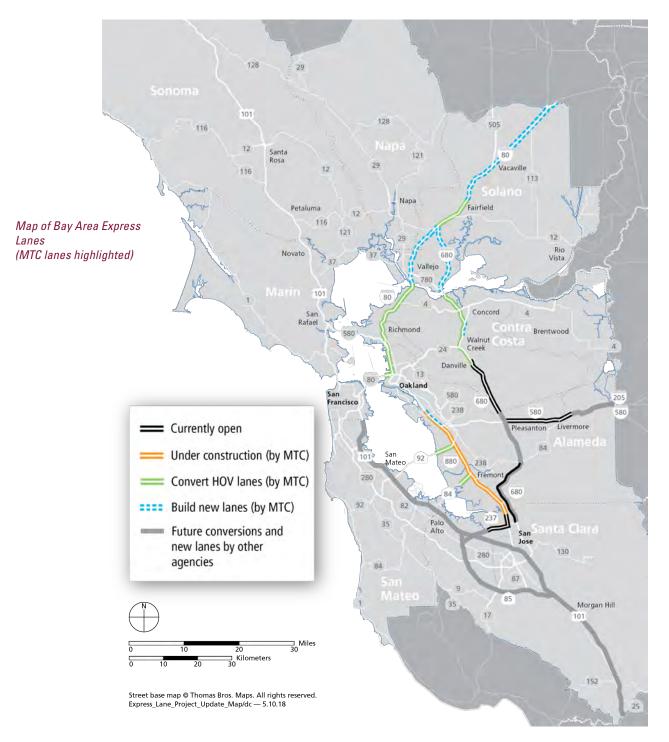


Map of Bay Area Express Lane Network

# **B.** Operating Authority

MTC and the Bay Area Toll Authority (BATA) have formed a joint powers authority to develop and operate MTC Express Lanes. The joint powers authority, known as the Bay Area Infrastructure Financing Authority (BAIFA), is composed primarily of representatives of the three counties where the express lanes are located: Alameda, Contra Costa and Solano. BAIFA is responsible for policy and operational decisions such as toll rates, project phasing and use of revenue.

The map below highlights MTC's portion of Bay Area Express Lanes and shows where lanes will be converted from HOV lanes and where new lanes will be added.



## C. MTC Express Lane Project Funding

MTC is using existing funding to convert existing HOV lanes to express lanes and to conduct environmental studies and design on some gap closure projects, so they are "shelf-ready" should construction funding become available. This will allow MTC to open as much of its 270-mile network as quickly as possible.

The table below lists the projects that comprise MTC Express Lanes according to current funding status.

County	Route	Project	Geographical Limits	Miles	Environmental	Design	Construction		
NEAR-T	ERM CON\	ERSIONS AND GAP CLOSURE	OPPORTUNITY PROJECTS						
ALA	880	I-880 Alameda	Between San Leandro and Milpitas Hegenberger Rd./Lewelling Blvd. to Dixon Landing Rd.	51	٠	٠	٠		
CC	680	I-680 Contra Costa Southern Segment	Between Walnut Creek and San Ramon Livorna Rd./Rudgear Rd. to Alcosta Blvd.	23	● Project d	• complet	• ed 2017		
CC	680	I-680 Contra Costa Northern Segment Southbound	Martinez to Walnut Creek Marina Vista Blvd. to Rudgear Rd.	11	٠	٠	•		
SOL	80	I-80 Solano	Fairfield to Vacaville <i>Red Top Rd. to I-505</i>	36	٠	•	0		
MID-TEF	RM CONVE	RSIONS AND GAP CLOSURE C	PPORTUNITY PROJECTS						
ALA/ CC	80	I-80 and Westbound Approaches to the Bay Bridge	Between Crockett and Bay Bridge <i>Cummings Skyway to Bay Bridge;</i> <i>I-80, I-580, I-880 and West Grand</i> <i>approaches to Bay Bridge</i>	44	ſ	0	0		
ALA/ SM	84	Dumbarton Bridge Western Approach	Fremont/Newark I-880 to Dumbarton Bridge	3	٠	0	0		
ALA/ SM	92	San Mateo Bridge Westbound Approach	Hayward I-880 to San Mateo Bridge	3	٠	0	0		
CC	680	I-680 Contra Costa Northbound Express Lane Completion	Walnut Creek to Benicia North Main St. to Marina Vista Blvd.	9	0	0	0		
KEY ●									

# III. CAPITAL DELIVERY A. Schedule

The schedule summary below reflects the "open to traffic" dates of the original "baseline" schedule, and the current completion forecast for the projects that are fully funded.

Project	Baseline Opening	Forecast Opening	Confidence Level	Detail Page
I-880 Alameda (ALA-880) San Leandro and Milpitas Hegenberger Rd./Lewelling Blvd. to Dixon Landing Rd.	Spring 2019	End of 2019	•	15
I-680 Contra Costa Southern Segment (CC-680 South) Walnut Creek and San Ramon <i>Livorna Rd./Rudgear Rd. to Alcosta Blvd.</i>	Fall 2016	Fall 2017 Actual	•	A-5
I-680 Contra Costa Northern Segment Southbound (CC-680 North SB) Martinez to Walnut Creek <i>Marina Vista Blvd. to Rudgear Rd.</i>	Fall 2018	Fall 2021	٠	19

#### KEY

Within schedule shown.

Identified potential risks that may significantly impact schedule if not mitigated. See Section III.D Risk Management Plan for further discussion of schedule risk.

Known impact to schedule, changes forthcoming.

## **B.** Capital Costs

The cost summary below shows: 1) the costs of each express lane [corridor or segment] including planning, design and construction of the civil infrastructure, and installation and integration of the backhaul communications and toll system, and 2) programwide costs including planning and design, and implementation of centralized elements of the backhaul network and toll system. The total cost estimate includes the full estimated cost to complete MTC Express Lanes. The approved Expenditure Plan fully funds the first three projects listed below, the environmental and design phases for the I-80 projects in Solano County, and the environmental phase for the westbound approaches to the San Mateo and Dumbarton Bridges. The expended-as-of amounts shown represent the amount of BATA Express Lane funds expended through May 31, 2018; June 2018 expended-as-of amounts will be included once the 2018 fiscal year is closed out. The confidence level assessment reflects potential risks to each project budget; for more information, see Section III.D Risk Management Plan. Staff anticipates revisions to the Expenditure Plan in fall 2018 to reflect updated toll system costs for the I-880 and I-680 Northern Segment Southbound projects pending the outcome of negotiations with the toll system integrator on expanded scope and extended schedule for these corridors.

		Cost	Regional Other		BATA	Express Lane Fi				
Project <sup>(1)</sup>	Total Cost Estimate <sup>(2)</sup>	Estimate, Funded Phases <sup>(3)</sup>	Measure 2 Funds (allocated)	Funding (allocated)	June 2017 Amendment	July 2018 Amendment	Expended as of 5/31/18	Percent Complete <sup>(5)</sup>	Confidence Level <sup>(6)</sup>	
NEAR-TERM CONVERSIONS AND GAP CLOSURE OPPORTUNITY PROJECTS         Costs shown in millions of escalated dollars										
I-880 Alameda	135.5	135.5			132.5	135.5	60.0	45%	•	
I-680 Contra Costa Southern Segment	55.6	55.6			55.6	55.6	49.9	98%	•	
I-680 Contra Costa Northern Segment Southbound <sup>(7)</sup>	123.9	123.9	19.4	53.2	51.3	51.3	5.3	25%	•	
I-80 Solano	228.2	34.2	15.2		19.0	19.0	8.7	20%	٠	
Centralized Toll System	33.6	33.6			33.6	33.6	16.0	60%	•	
Program Planning, Coordination & Management	28.4	28.4			28.4	28.4	18.0	75%	•	
Program Contingency	18.1	18.1			5.1	5.1			•	
Capitalized Start-up O&M	16.0	16.0			16.0	16.0	4.5		•	
MID-TERM CONVERSIONS AND GAP	CLOSURE OP	PORTUNITY P	ROJECTS							
I-80 Alameda/Contra Costa and Westbound approaches to the Bay Bridge (I-80, I-580, I-880, West Grand)	193.0	5.0	5.0							
Dumbarton Bridge Westbound Approach (SR-84)	9.0	0.3			0.3	0.3	0.3	5%		
San Mateo Bridge Westbound Approach (SR-92)	10.0	0.4			0.4	0.4	0.4	5%		
I-680 Contra Costa Northbound Express Lane Completion <sup>(8)</sup>	390.0	21.5	1.5	20.0				5%		
Centralized & Program Costs & Start-Up O&M - Gap Closures & Future Conversions	TBD									
TOTALS	1,241.3	472.5	41.1	73.2	342.2	345.2	163.2	50%		

<sup>(1)</sup> Other Gap Closure and Extension projects not shown: ALA-880 extension northbound from Lewelling to Hegenberger; SOL-80 gap closure from Carquinez Bridge to Red Top Road; SOL-80 extension east of I-505; SOL-680 gap closure from Benicia to Cordelia

<sup>(2)</sup> Total Cost Estimate represents current estimated cost to complete each project.

(3) Cost Estimate, Funded Phases represents current estimated cost to complete phases that are funded for each project.

(4) BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.

<sup>(5)</sup> Percent completes shown are based on the achievement of major milestones, whether those milestones were completed using BAIFA funds or other funds. Projects that have completed milestones using other funds include I-680 Contra Costa Northern Segment Southbound and I-80 Solano.

(6) • = Within budget, • = identified potential risks that may significantly exceed budget if not mitigated, • = Known impacts to budget - changes forthcoming.
 (7) Cost represents the total for HOV Completion and Conversion to Express Lanes. Other funds committed to the HOV Completion portion include Measure J (\$37M) and STIP (\$16M).

(8) Represents completion of HOV lane through Walnut Creek to SR-242 and conversion of existing HOV lane north of SR-242, which were previously listed separately.

## C. Change Management

The change management process captures the changes in the program that have an impact on the approved scope, schedule and budget baselines. There were no changes to the MTC Express Lanes Program in the second quarter. However, this Quarterly Report includes a change to the Expenditure Plan adopted by BAIFA in July 2018, just after the close of the second quarter. The July 2018 Expenditure Plan transfers \$3.0 million of Service Authority for Freeways and Expressways (SAFE) funds to the I-880 Alameda express lanes project budget to install fiber lateral connections to the backhaul network for CCTV cameras and changeable message signs on behalf of Caltrans. This will be documented as a change to the project.

# D. Risk Management Plan

MTC manages risk at both the program and contract level by identifying risks that could negatively impact the program's cost and schedule, and assigning responsibility to the person best positioned to manage each risk. Risks managed at the contract level are associated with contingency funding authorized by BAIFA for specific contracts. Risks managed at the program level would draw upon the program contingency line item in the Express Lanes Expenditure Plan. Staff regularly review the risk exposure and mitigation plans at both the contract and program level.

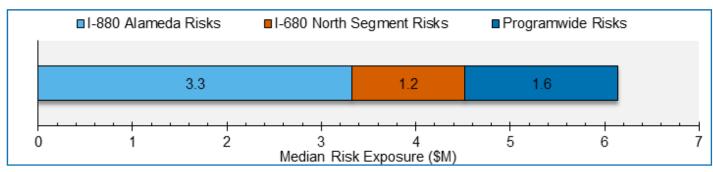
Chart #1 shows the median risk exposure for the program-level risks using Monte Carlo analysis. As of June 30, 2018, the risk exposure stands at \$6.1 million, which is lower than the \$7.2 million reported last quarter. This decrease is due to avoidance of the risk related to the bid environment for the I-680 Northern Segment as the bids received for this contract were within the engineer's estimate.

Chart #2 tracks the program's cost forecast and risk exposure as compared to the authorized program budget. Consistent with the amendment to the Expenditure Plan that was adopted on July 11, 2018, the amount of BATA Express Lane Funds allocated to specific express lanes projects is \$340.1 million, plus program contingency, for a total authorized budget of \$345.2 million. The current program contingency of \$5.1 million would not be sufficient if the risk exposure of \$6.1 million were to be realized. While there are few individual risks with major cost impacts, there are many risks with minor cost impacts, resulting in an overall significant risk exposure. Staff plans to be diligent in managing cost and risk while seeking new funding opportunities.

The top contributors to the program-level risk exposure and the associated mitigation strategies are as follows:

#### I-880 Alameda

The most significant risk that could affect schedule relates to a Caltrans-managed repaving project in the corridor. Coordination issues with the project may delay completion of express lanes and impact the open-to-traffic date. Now that the repaving work is underway, MTC staff continues to work with Caltrans to coordinate construction activities and minimize lane closures. Additional schedule risks could result from delays in hook-ups to the AT&T communication network for the Backhaul and delays in installation of power drops by PG&E. Staff is actively monitoring these risks.



### Chart #1: Median Risk Exposure (\$M)

Chart #1 shows the contribution of each project's risks toward the total program risk exposure. Risk exposure is calculated using Monte Carlo simulation.

#### I-880 Alameda (continued)

• The most significant risk that could affect cost relates to the toll system. Toll system integrator costs associated with schedule slippage and midday tolling may exceed available contingency, which was originally allocated for other known changes to tolling hardware. The project team is actively negotiating with the toll systems integrator on additional cost items, especially schedule slippage, program management and overhead sign installation.

### I-680 Contra Costa Northern Segment Southbound

- The most significant risk that could affect schedule relates to a Caltrans-managed safety project in the corridor. Coordination with the project may delay completion of express lanes work and impact the open-to-traffic date. MTC and Caltrans staff continue to look for ways to coordinate the construction sequence that would reduce the overall schedule. Additional schedule risks are being actively monitored, including potential delay to civil contract delivery caused by contract specifications, weather and PG&E utility connections.
- The most significant risk to cost was retired in June 2018 with the award of the civil construction contract, which was below the engineer's estimate. MTC had been monitoring the potential for demand for constructionrelated services in the Bay Area to drive up some project costs. Fortunately, this turned out not to be the case for this contract.

### **Programwide Risks**

Potential changes to state or national interoperability requirements may cause changes to design or operational policy that may have cost impacts for MTC's Express Lanes Program. The California Toll Operators Committee has a goal that all operators will be able to read and process 6C transactions by spring of 2019. This would require tuning for the I-680 Contra Costa Southern Segment and thus may have cost impacts for MTC's Express Lanes. This risk will be managed by participating in the development plan of the transition from Title 21 compliant toll technology to 6C compliant toll technology.



## Chart #2: Program Cost Forecast and Risk Exposure vs. Authorized Budget (\$M)

Chart #2 shows the program cost forecast and risk exposure as compared to the authorized program budget.

## E. Active Capital Project Summaries

## **Centralized Functions** Toll System and Program Management, Planning and Regional Coordination

## **Total Estimated Cost**

\$33.6 million for the Centralized Toll System\$28.4 for Program Planning, Coordination and Management

## Schedule

Centralized Toll System was ready for the opening of the I-680 Contra Costa Southern Segment on October 9, 2017.

Program Planning, Coordination and Management is ongoing through the opening of the funded projects.

## **Project Description**

The Centralized Toll System includes the elements of the toll system that are needed to toll all the express lanes, as well as the backhaul communications network components, such as fiber optic cable and leased line services, that transport toll data from MTC lanes to host and toll operations data centers. Centralized toll system work includes designing and implementing the hardware and software for dynamic tollsetting and trip building, integration with the FasTrak<sup>®</sup> Customer Service Center, and acquiring spare parts.

Program management, planning and regional coordination tasks include managing the expenditure plan, cost, schedule and risk; developing the express lane business rules and toll ordinance; conducting customer education and outreach; building out the Regional Operations Center and developing operating procedures; planning for future express lanes; and coordinating with partner agencies to offer a seamless experience for drivers.

### Program Management Highlights and Progress

- Staff finalized the Fiscal Year 2018/19 Operating Budget.
- Staff presented to local transportation stakeholder groups about I-680 Contra Costa Express Lanes performance.
- Staff coordinated with other public agency staff on the possibility of the future US-101 express lanes in San Mateo County being owned and operated by BAIFA.

## **Current Program Management Activities**

- Staff will begin planning and working with partner express lane agencies to determine how to benefit from synergies of similar work.
- Staff is developing a program of strategic and technical research for the coming year.

### Toll System Highlights and Progress

- The construction contract for the backhaul communications network for the host data centers and I-680 Contra Costa Southern Segment was awarded in December 2015.
- The toll operations staffing contract was awarded in March 2016.
- Final toll system host and software design was approved in March 2016, and Factory Acceptance Testing of hardware and software was held in June 2016.
- Primary toll system host hardware was installed at the Benicia-Martinez Bridge toll plaza in November 2016 and communications were established with the field equipment. Back-up operations hardware was also installed at the Traveler Information Center (TIC) located at Caltrans District 4 in Oakland.
- Buildout of the Regional Operations Center was finished in March 2017.
- The integrator completed the formal First Zone Test, which was the first field test to compile live lane transactions into a single trip, in May 2017 and the Communications End-to-End Testing for the toll systems communications network in June 2017.
- The toll system began using the full backhaul network as of June 2017.
- The integrator completed Corridor Testing, which fully tested the entire toll and communications system, in August 2017 and finished installing and commissioned all field equipment in September 2017.
- The integrator and the FasTrak<sup>®</sup> Customer Service Center completed Production Readiness Testing of the data exchange in September 2017.
- The toll system went live to the public on October 9, 2017.
- In May 2018, the integrator completed the Disaster Recovery Test to demonstrate the failover process to a redundant toll system is functional.

### **Current Toll System Activities**

- Staff continues to work with the toll system integrator to address system bugs and prepare for I-680 Southern Segment Operations Testing in September 2018.
- Staff is negotiating with the toll system integrator on expansion of the contract scope and for the extended

duration of the contract through the opening of the I-880 and I-680 Northern Segment Southbound projects in 2019 and 2021, respectively. Staff anticipates updating the expenditure plan accordingly.





# I-880 Alameda (ALA-880)

## Oakland to Milpitas

## Hegenberger Road/Lewelling Boulevard to Dixon Landing Road

Total Cost Estimate \$135.5 million

Scheduled Open Date End of 2019

## **Project Description**

The project converts the existing I-880 HOV lanes that run from Hegenberger Road to Dixon Landing Road in the southbound direction and from Dixon Landing Road to Lewelling Boulevard in the northbound direction to express lanes.

The conversion involves lane striping and installing sign gantries, signs, FasTrak<sup>®</sup> toll tag readers, traffic monitoring video cameras and California Highway Patrol observation areas. It will result in 51 express lane miles between Oakland and Milpitas.

The express lanes conversion project is being coordinated with a median barrier reconstruction project and a future pavement resurfacing project, both led by Caltrans. The median barrier reconstruction project will install foundations and other infrastructure required for the future express lanes construction for a large portion of the express lanes corridor.

## **Project Highlights and Progress**

- Public open house was held in March 2015.
- Preliminary engineering report and environmental document were completed in October 2016.
- Caltrans approved the mid-day hours of operation assessment in December 2016.
- Caltrans issued the encroachment permit for the civil construction contract in June 2017.
- The express lanes civil contractor began construction in September 2017.
- Caltrans approved the toll system design and issued the encroachment permit for the toll system integrator in March 2018.
- Civil Infrastructure installation from Dixon Landing Rd. to Fremont Blvd. was completed.



- Backhaul fiber for the southern portion of the project was completed.
- MTC's express lanes scope of work to be delivered through Caltrans' median barrier contract was completed, including barrier demolition, express lane sign structure foundations and light foundations.
- Staff kept residents and stakeholders in the I-880 corridor informed about express lane construction.

### **Current Project Activities**

- The express lane civil contractor will continue work on infrastructure installation and PG&E service connections in the area from Fremont Blvd. to SR 92, which is 75% complete.
- The express lanes civil contractor will continue to install a retaining wall in the freeway shoulder near Hacienda Ave. in Hayward.

#### Current Project Activities (continued)

- Backhaul fiber work for the northern portion of the project • is underway.
- The toll system integrator will begin work.

**Project Schedule by Phase** 

- In July, funds were added to the budget for installation of • fiber laterals to connect Caltrans' freeway management equipment to the communications backhaul within the I-880 Express Lanes project limits. Caltrans plans to complete design in August 2018. The work will be incorporated into the I-880 civil construction contract as a change order.
- Monthly construction notices and ramp closure/detour notices continue to be sent.



\*Includes I-880 median barrier improvements.

### **Project Cost**

	Cost	Regional	Other	BATA			
Total Cos Estimate		Measure 2 Funds (allocated)	Funding (allocated)	June 2017 Amendment	July 2018 Amendment	Expended as of 5/31/18	Percent Complete <sup>(4)</sup>
135	5 135.5			132.5	135.5	60.0	45%

The cost estimate for this project includes planning, design, construction, utilities, backhaul communications and toll system integration.

Costs shown in millions of escalated dollars.

- (1) Total Cost Estimate represents current estimated cost to complete each project.
- (2) Cost Estimate, Funded Phases represents current estimated cost to complete phases that are funded for each project.
- (3) BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.
- (4) Percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.





## I-680 Northern Segment Southbound (CC-680 North SB)

## Martinez to Walnut Creek

### Benicia Bridge to Rudgear Road

Total Cost Estimate \$123.9 million (\$51.3 million to be funded by BAIFA)

Scheduled Open Date Fall 2021

## **Project Description**

The project will convert 11 miles of the existing HOV lane on southbound I-680 from just south of Marina Vista Avenue in Martinez to North Main Street in Walnut Creek into an express lane. It also includes express lane elements for the I-680 Southbound HOV Completion Project. Once complete, I-680 will have a continuous southbound express lane from Martinez to the Alameda County line.

Civil construction will be delivered by the Contra Costa Transportation Authority (CCTA). MTC will install toll and communications equipment and will operate the express lanes.

## **Project Highlights and Progress**

- Caltrans accepted the Traffic Operation Analysis Report in October 2015, and agreed with the mid-day hours of operation analysis in early 2017.
- Caltrans signed the environmental document in December 2016 and approved the Project Report in August 2017.
- Project staff met with the Walnut Creek Mayor and city staff in May 2017 to review the construction plan and impacts.
- Environmental revalidation was completed in September 2017. The Office of U.S. Fish and Wildlife Service provided concurrence that the project is not likely to adversely affect any known federally listed species.
- A contract to remove trees along southbound I-680 in Walnut Creek between South Main Street and Livorna Road was awarded in October 2017, and work was completed in December 2017.
- Caltrans issued the encroachment permit for the civil construction contract in February 2018.
- CCTA opened civil construction bids in June 2018.



• A public meeting to review replacement planting conceptual designs was held in June 2018.

## **Current Project Activities**

- The toll system integrator is working on the 100% design package for the toll system.
- While PG&E utility relocation is complete, Wave Communication guy wire relocation for utility poles is ongoing.
- CCTA will award a civil construction contract in July 2018.
- The replacement planting design will be updated to incorporate public feedback.
- Staff is preparing a contract change order for the backhaul contractor to reroute in-use backhaul fiber in Walnut Creek prior to lane widening. Reroute design is planned for completion in summer 2018.

## Project Schedule by Phase



## **Project Cost**

		Regional Measure 2 Funds (allocated)	Other Funding (allocated)	BATA		Tł		
Total Cost Estimate <sup>(1)</sup>				June 2017 Amendment	July 2018 Amendment	Expended as of 5/31/18	Percent Complete <sup>(4)</sup>	in co co
123.9	123.9	19.4	53.2	51.3	51.3	5.3	25%	in

The cost estimate for this project ncludes planning, design, construction, utilities, backhaul communications and toll system ntegration.

Costs shown in millions of escalated dollars.

<sup>(1)</sup> Total Cost Estimate represents current estimated cost to complete each project.

<sup>(2)</sup> Cost Estimate, Funded Phases represents current estimated cost to complete phases that are funded for each project.

<sup>(3)</sup> BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.

(4) Percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.

# I-80 Solano (SOL-80)

## Fairfield to Vacaville

```
Red Top Road to I-505
```

Total Cost Estimate \$228.2 million

## Scheduled Open Date

End of 2021, subject to funding

## **Project Description**

This project will convert the existing eastbound and westbound HOV lanes to express lanes between Red Top Road and Air Base Parkway in Fairfield. Conversion work includes striping lanes and installing sign gantries, signs, FasTrak<sup>®</sup> toll tag readers and traffic-monitoring video cameras.

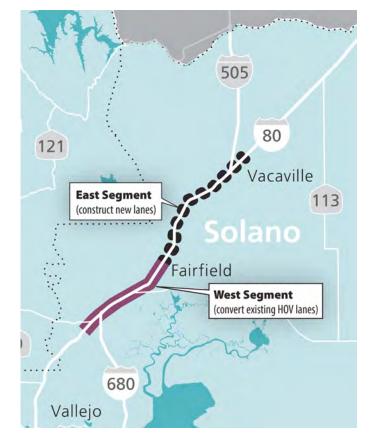
The project will also construct new eastbound and westbound lanes between Air Base Parkway and I-505 in Vacaville. In this section, the highway will be widened along with the installation of express lane striping, signage and equipment. The project will result in 36 miles of express lanes on I-80 in Solano County.

The Solano Transportation Authority (STA) is the lead agency for environmental clearance and civil design.

Caltrans will advertise and award the construction contract, and a blended Caltrans/STA team will administer construction. MTC will install toll and communications equipment and will operate the express lanes.

## **Project Highlights and Progress**

- A public open house was held in August 2015.
- The preliminary engineering report and environmental document were completed in December 2015.
- The final design document was approved by Caltrans in March 2018.
- The project reached the Ready-to-List milestone in April 2018.



## **Current Project Activities**

• The project team is completing final remaining design activities so that the project will be shelf-ready should construction funds become available.

## Project Schedule by Phase



\* Funding for these activities is not yet secured.

### **Project Cost**

Total Cost Estimate <sup>(1)</sup>	Estimate, Me Funded 2 F	Regional	Other	BATA			
		Measure 2 Funds (allocated)	Funding (allocated)	June 2017 Amendment	July 2018 Amendment	Expended as of 5/31/18	Percent Complete <sup>(4)</sup>
228.2	34.2	15.2		19.0	19.0	8.7	20%

The cost estimate for this project includes planning, design, construction, utilities, backhaul communications and toll system integration.

Costs shown in millions of escalated dollars.

<sup>(1)</sup> Total Cost Estimate represents current estimated cost to complete each project.

<sup>(2)</sup> Cost Estimate, Funded Phases represents current estimated cost to complete phases that are funded for each project.

<sup>(3)</sup> BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.

<sup>(4)</sup> Percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.

# IV. OPERATIONS

## I-680 Contra Costa Express Lanes

The I-680 Contra Costa Express Lanes opened October 9, 2017. The lanes run 11 miles northbound from Alcosta Boulevard to Livorna Road and 12 miles southbound from Rudgear Road to Alcosta Boulevard. Regional Operations Center staff monitor equipment and lane performance, make toll rate adjustments, and coordinate with the California Highway Patrol (CHP) and Caltrans on incident management. The FasTrak<sup>®</sup> Customer Service Center issues toll tags, handles toll invoicing and collections, and provides customer service. Toll tag and vehicle occupancy requirements are enforced automatically by the toll system and manually by the CHP under contract to BAIFA. A 'backhaul' fiber network and supplemental leased-line services offer fast and secure transfer of tolling data. Roadway maintenance is also funded by the express lanes. Program and contactor staff perform public outreach and education, track and report on program performance and analyze traffic, and support operations in other ways as needed.

See **Appendix C** for a summary of second quarter express lanes performance.



### **Rules of the Road**

- Hours are Monday through Friday, 5 a.m. 8 p.m.
- Tolls change based on traffic congestion; there is no maximum toll
- All vehicles in the express lane must use a FasTrak<sup>®</sup> or FasTrak Flex<sup>®</sup> toll tag
- Carpools of 2 or more people, eligible clean air vehicles, motorcycles and transit buses travel toll-free with a properly set FasTrak Flex<sup>®</sup> toll tag
- Learn more at expresslanes.511.org

## **Operating Revenue and Expense Summary**

The summary below shows the FY 2017/18 operating budget compared to the most recent 'actuals' for revenue and expenses. Revenue reflects revenue received by BAIFA from tolls, violations and capital start-up funds. Expenses reflect expense incurred by BAIFA for the FasTrak® Customer Service Center, the I-680 Contra Costa Express Lanes, the Backhaul communications network, and program staffing and administration. The expended as-of amounts shown represent the amount of BATA Express Lane funds expended through May 31, 2018; June 2018 expended as-of amounts will be included once the 2018 fiscal year is closed out.

#### FY 2017/18 BAIFA Operating Budget<sup>(1)</sup>

	FY 2017-18 Budget	Expended as of 5/31/2018	% of Budget
REVENUE			
General Toll Revenue	5,200	6,649	128%
Violation Revenue	500	715	143%
Interest Revenue	-	45	100%
Transfers In from Capital Fund	2,915	2,915	100%
Total Revenue	8,615	10,325	120%
EXPENSE			
FasTrak <sup>®</sup> Operations and Maintenance			
RCSC Operations	1,335	1,182	89%
Banking/Credit Card Fees	240	177	74%
Toll Collection Services	225	112	50%
Subtotal	1,800	1,471	82%
Express Lanes Administration			
Salaries, Benefits & Overhead	1,460	609	42%
Professional/Consultant Service	322	210	65%
Audit/Accounting/Other	30	0	0%
Insurance	59	3	5%
Other	99	4	4%
Subtotal	1,970	826	42%
Express Lanes & Backhaul Operations and Maintenance			
Express Lane Toll Operators	799	257	32%
California Highway Patrol Enforcement	320	0	0%
Roadway Maintenance	1,392	200	14%
Toll System Operations & Maintenance	1,916	0	0%
Caltrans Express Lanes Operations & Maintenance	155	0	0%
Utility Service	263	26	10%
Subtotal	4,845	483	10%
Total Expense	8,615	2,780	32%
NET (Total Revenue less Total Expense)		\$7,544	

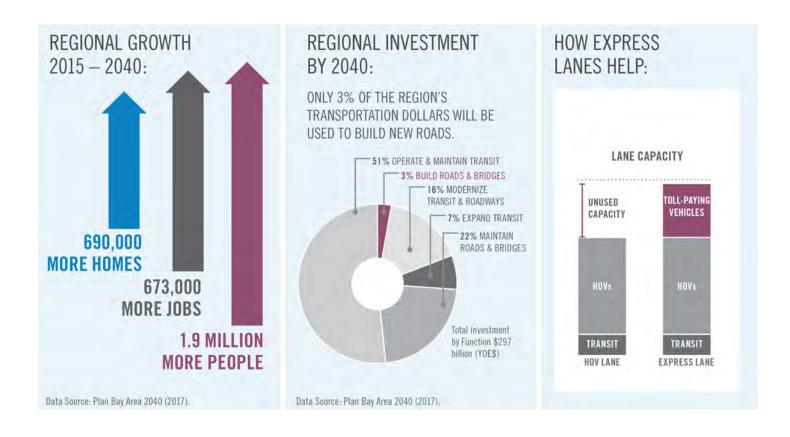
(1) Dollars rounded to nearest thousand.

# **APPENDICES**

# APPENDIX A Express Lanes Overview

## 1. Why Express Lanes?

The Bay Area lacks the necessary transportation funding and land to build enough transportation capacity to keep up with regional growth. Bay Area Express Lanes maximize use of our highways by A) filling any empty space in existing HOV lanes, B) improving operations in existing HOV lanes through better carpool enforcement and strategies to prevent lane slowdowns, and C) filling gaps in the HOV lane system to encourage more carpooling.

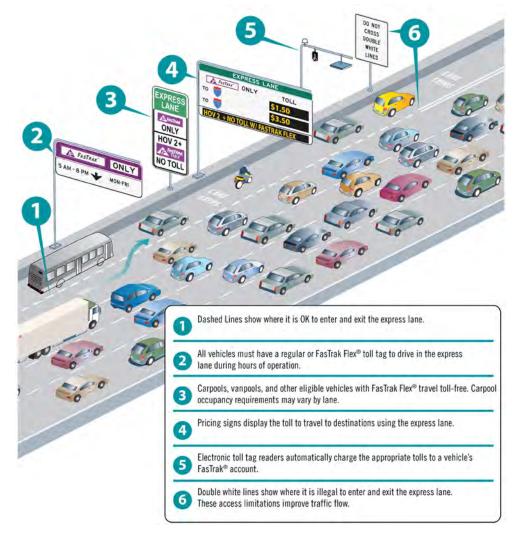


## 2. How Express Lanes Work

MTC Express Lanes are free to carpoolers, vanpoolers, motorcycles, eligible clean air vehicles and transit buses. Solo drivers can choose to pay tolls to use the lanes. Tolls for solo drivers will be collected electronically via FasTrak<sup>®</sup>, as on Bay Area toll bridges. Overhead electronic pricing signs will display the current toll rates, which will increase as traffic congestion increases and decrease as traffic congestion decreases.

On MTC Express Lanes, carpools, qualifying clean-air vehicles and other toll-exempt vehicles must use a FasTrak Flex<sup>®</sup> toll tag set to "2" or "3+" to travel toll-free. Solo drivers pay to use the lanes with either a standard FasTrak<sup>®</sup> toll tag or a FasTrak Flex<sup>®</sup> toll tag set to "1." Drivers should move the switch before driving.





The figure to the left explains how to use Bay Area Express Lanes. MTC Express Lanes will be mostly "open" access, meaning drivers will enter and exit the express lanes similar to how they enter and exit HOV lanes today. Areas in locations prone to excessive weaving or with safety issues will have limited access to restrict entry and exit at these locations. Signage and lane striping will identify the limited entry and exit locations. Limited access is a way to improve travel speeds in express lanes.

## 3. System Technology and Elements

MTC Express Lanes are implemented by overlaying communications equipment on new and existing freeway infrastructure. Express lanes implementation requires four discrete elements that are integrated through design, construction and operations, including:

### Civil Infrastructure (Highway Modifications)

For lane conversions, the civil infrastructure consists of sign structures, sign panels, lane striping, and conduit work for power and communications. For gap closure and extension projects, the civil infrastructure includes highway widening to add lanes as well as the signage and communications equipment required for conversions.

The civil contractor will put in place the foundations and structures upon which the toll systems contractor will install the toll equipment. In addition, the civil contractor will construct the infrastructure necessary to provide power and communications to the toll system.

#### **Toll System**

The toll system consists of two components, the in-lane system and the back-end "host" system. The lane system consists of

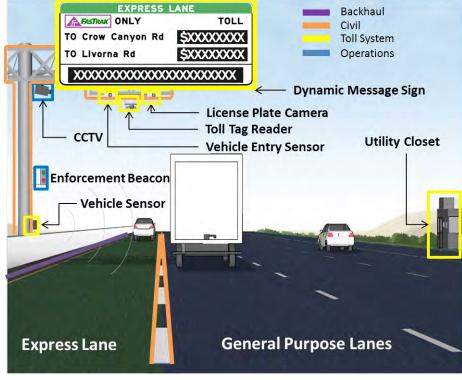
all the equipment on the highway needed to operate the toll system including toll tag readers, cameras and vehicle detection. The host system serves as the brain of the toll system, which collects and processes all the data from the highway and sends it to the regional customer service center for billing.

### **Backhaul Communications Network**

The backhaul network is the communication line along which data collected in the lanes is sent to the toll host system, operations center and regional customer service center. The backhaul contractor will install new conduit and communications fiber as well as utilize existing Caltrans, BART and other infrastructure to build the network. The backhaul network is being designed with the expectation that it will become part of a broader regional communications network.

#### Operations

The operations element consists of everything that is needed to successfully operate the express lanes including: an operations center, the regional customer service center, enforcement, public outreach, performance monitoring and ongoing maintenance. An express lanes Regional Operations Center will be established in the Bay Area Metrocenter building in San Francisco where operators will actively monitor the condition of the lanes and coordinate with Caltrans and the California Highway Patrol to ensure that the lanes operate efficiently.



For illustrative purposes only

# **APPENDIX B**

# **Completed Capital Project Summaries**

# I-680 Contra Costa Southern Segment (CC-680 South)

## Walnut Creek to San Ramon

Livorna Road/Rudgear Road to Alcosta Boulevard

Total Program Estimate \$55.6 million

**Open Date** Fall 2017

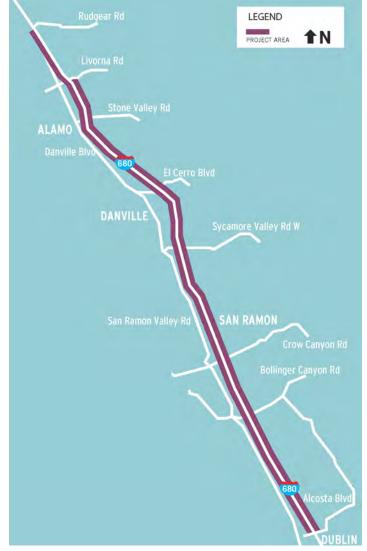
## **Project Description**

The project converts existing HOV lanes to express lanes on I-680 from Rudgear Road to Alcosta Boulevard in the southbound direction and from Alcosta Boulevard to Livorna Road in the northbound direction. It will result in 23 express lane miles through San Ramon, Danville, Alamo and southern Walnut Creek. No widening or additional lanes will be added to the freeway.

This conversion project includes striping lanes and installing sign gantries, signs, FasTrak<sup>®</sup> toll tag readers, and traffic monitoring video cameras. In addition, the project installs equipment and observation areas to help the California Highway Patrol enforce proper use of the lanes.

## Project Highlights and Progress

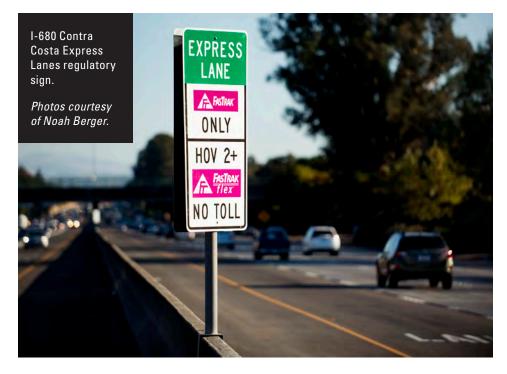
- Public open house was held in March 2014.
- Preliminary engineering report and environmental document were completed in August 2014.
- Final design for both the backhaul communication network and the toll system were completed in December 2015.
- Final roadway design was completed in April 2015. Civil construction was completed in May 2017.
- Backhaul contractor completed installation of 26 miles of fiber optic cable in June 2017.
- Corridor Testing was completed in August 2017.
- Toll system equipment and software was finalized and tested in September 2017.



- Backhaul operations and maintenance started in October 2017.
- The toll system went live to the public on October 9, 2017.

#### **Current Project Activities**

- The integrator is fine tuning field equipment and addressing punch list items in preparation for Operations Testing in summer of 2018. This test verifies the toll system meets all specifications and leads to the maintenance phase of operations.
- The Backhaul contractor completed project 'as-built' documentation and is performing ongoing operations of the communications network.
- Beginning in this Quarterly Report, since civil construction is complete and the express lanes are open, this capital project will be archived in Appendix B and no further updates will be made to the project summary.



## Project Schedule by Phase



#### **Project Cost**

	Program Cost Estimate <sup>(1)</sup> Forecast <sup>(2)</sup>	Regional Measure 2 Funds (allocated)	BAT			
Program Estimate <sup>(1)</sup>			Dec. 2015 Amendment	June 2017 Amendment	Expended through 3/31/18	Physical % Complete <sup>(4)</sup>
55.6	55.6		55.6	55.6	49.7	98%

The program estimate for this project includes planning, design, construction, utilities, backhaul communications and toll system integration.

Costs shown in millions of escalated dollars.

<sup>(1)</sup> Program estimate represents current estimated cost to complete each project.

<sup>(2)</sup> Cost forecast represents current estimated cost to complete phases that are funded for each project.

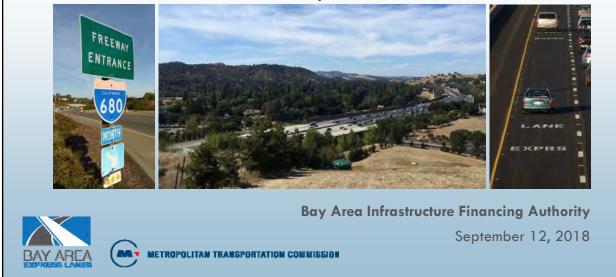
<sup>(3)</sup> BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.

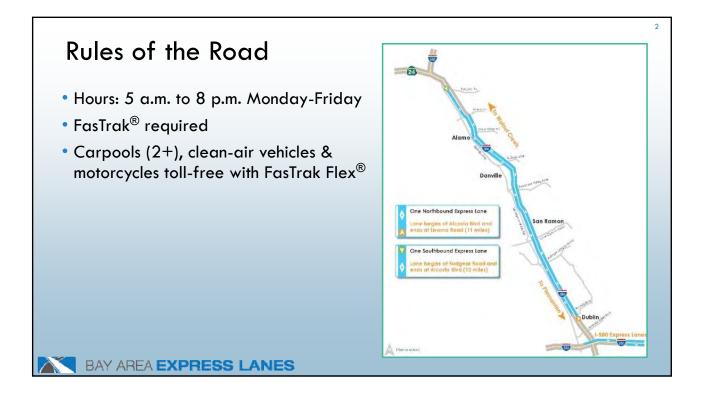
<sup>(4)</sup> Physical percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.

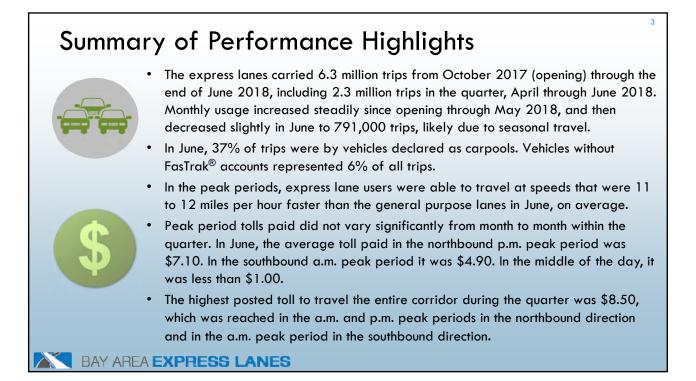
# **APPENDIX C**

I-680 Contra Costa Express Lanes Operations Report

## I-680 Contra Costa Express Lanes Performance 2nd Quarter, April – June 2018

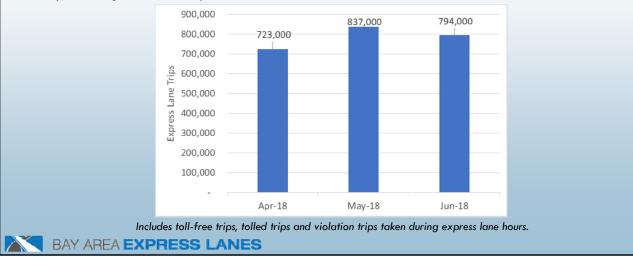


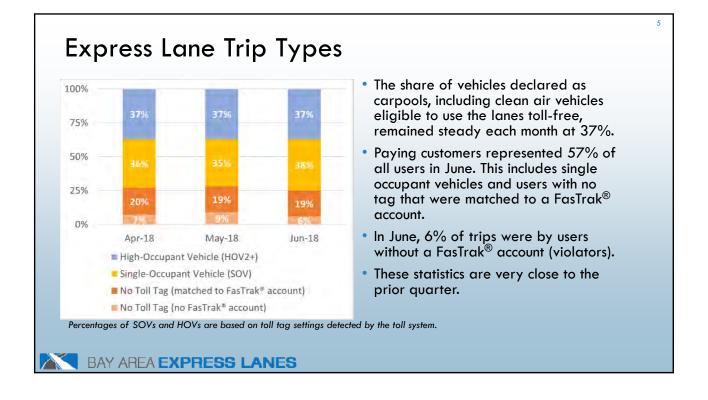


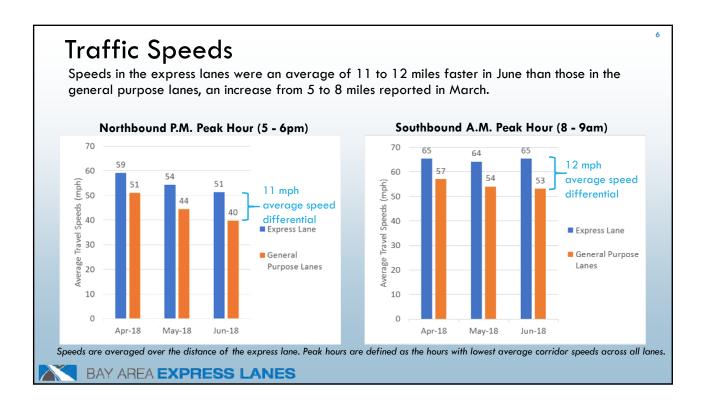


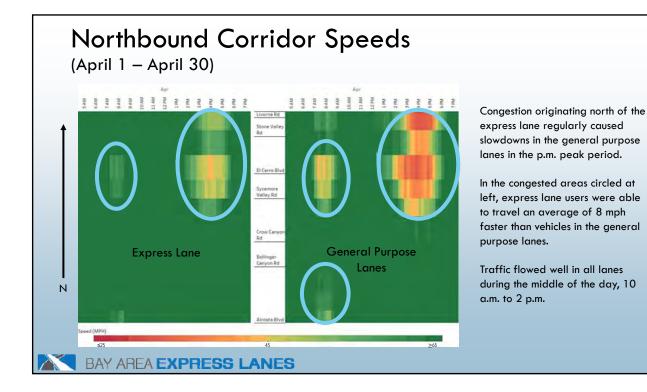
## **Express Lane Trips**

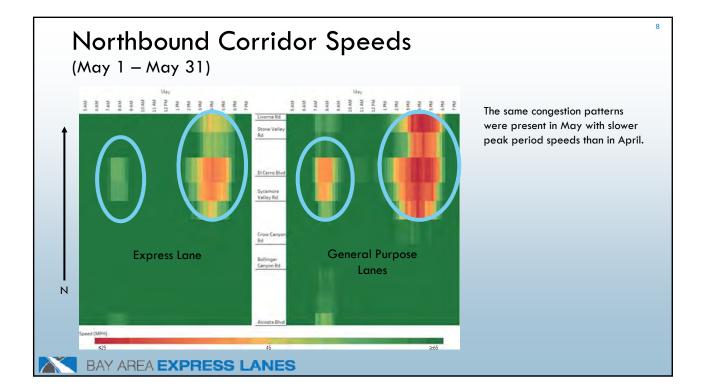
In total, there were over 2.3 million trips taken in the express lanes between April and June 2018, an increase from 2.1 million total trips during the prior three months (reported last quarter). May 2018 had the highest monthly usage since the lanes opened in October 2017. Usage in June 2018 declined slightly from May, reflecting summer traffic patterns.

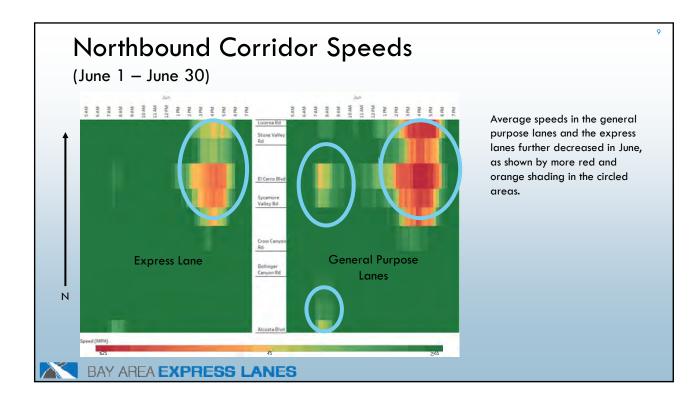


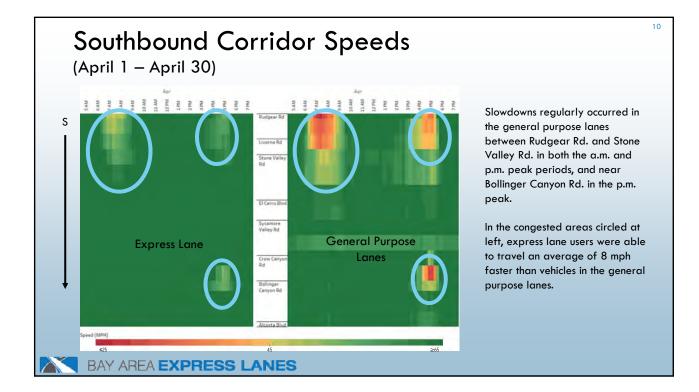


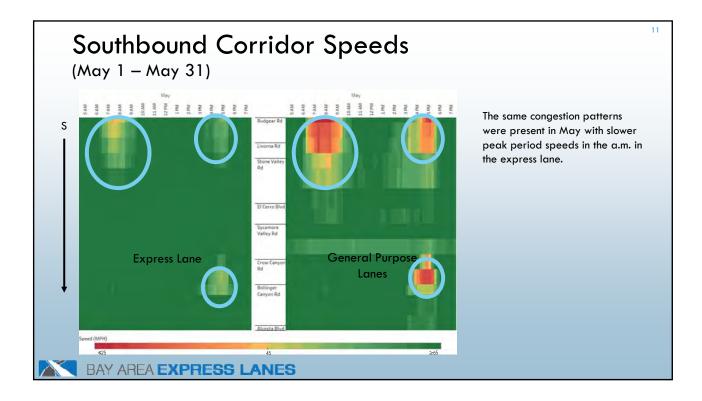


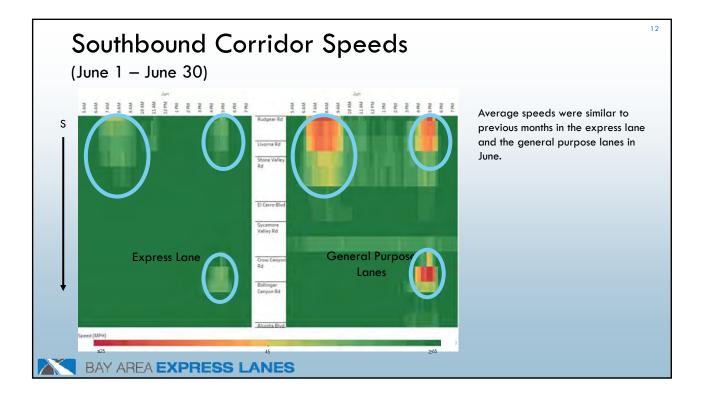


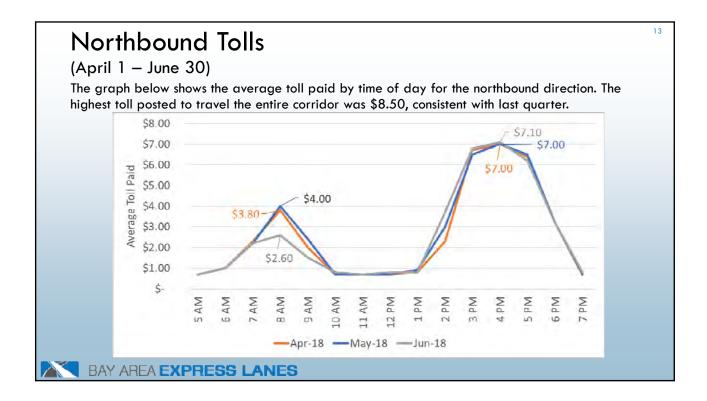


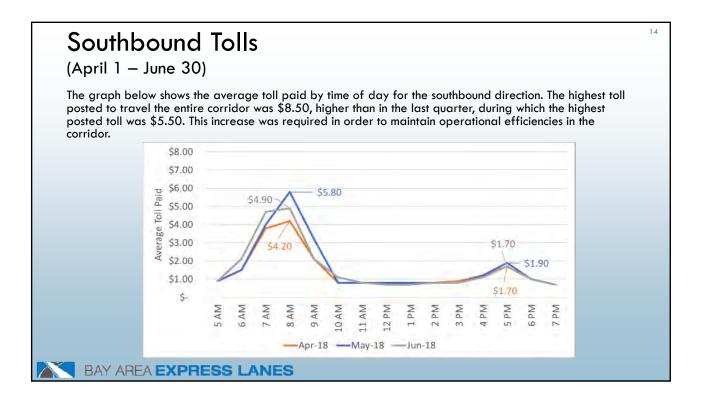


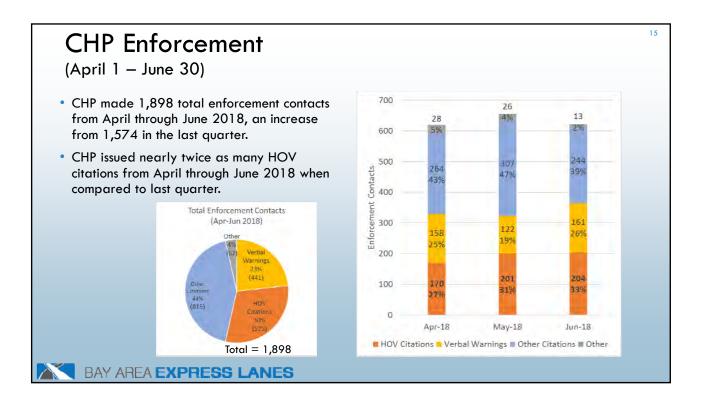
















## Metropolitan Transportation Commission

## Legislation Details (With Text)

File #:	18-0701	1	Version:	1	Name:			
Туре:	Resoluti	tion			Status:	Authority Approval		
File created:	8/23/202	18			In control:	Bay Area Infrastructure Financing Authority		
On agenda:	9/26/202	18			Final action:			
Title:	<ul> <li>Express Lanes Toll System <ul> <li>Contract Amendment and Contingency Increase - Express Lane Toll System Integrator:</li> <li>TransCore, LP (\$5,441,327 comprised of \$3,441,327 for contract and \$2,000,000 for contingency)</li> </ul> </li> <li>A request to amend the Express Lane Toll System Integrator (TSI) contract with TransCore, LP to add the I-680 Northern Segment, Southbound Express Lane in Contra Costa County from Benicia to Walnut Creek (CC-680 North).</li> <li>BAIFA Express Lanes Resolution No. 9, Revised - Express Lane Program Expenditure Plan A request to amend the Express Lane Program Expenditure Plan to accommodate the changes in the TransCore, LP contract.</li> </ul>							
Sponsors:								
Indexes:								
Code sections:								
Attachments:	<u>3a_BAIFA_Reso-0009_and_Contract_TransCore.pdf</u>							
Date	Ver. Ac	ction By			Act	ion Result		

## Subject:

Express Lanes Toll System

*i.* Contract Amendment and Contingency Increase - Express Lane Toll System Integrator: TransCore, LP (\$5,441,327 comprised of \$3,441,327 for contract and \$2,000,000 for contingency)

A request to amend the Express Lane Toll System Integrator (TSI) contract with TransCore, LP to add the I-680 Northern Segment, Southbound Express Lane in Contra Costa County from Benicia to Walnut Creek (CC-680 North).

*ii.* BAIFA Express Lanes Resolution No. 9, Revised - Express Lane Program Expenditure Plan

A request to amend the Express Lane Program Expenditure Plan to accommodate the changes in the TransCore, LP contract.

## **Presenter:**

Jim Macrae

## **Recommended Action:**

Authority Approval



Bay Area Infrastructure Financing Authority Bay Area Metro Center 375 Beale Street, Suite 800 San Francisco, CA 94105 TEL 415.778.6700 WEB www.mtc.ca.gov

Memorandum

TO: BAIFA

FR: Executive Director

DATE: September 12, 2018

W. I. 6841, 6844 and 6846

- RE: Express Lanes Toll System
  - i. <u>Contract Amendment and Contingency Increase Express Lane Toll System Integrator:</u> <u>TransCore, LP (\$5,441,327 comprised of \$3,441,327 for contract and \$2,000,000 for contingency)</u>
  - ii. BAIFA Express Lanes Resolution No. 9, Revised Express Lane Program Expenditure Plan

Staff seeks Authority approval, to amend the Express Lane Toll System Integrator (TSI) contract with TransCore, LP (TransCore) in an amount not to exceed \$3,441,327 to add the I-680 Northern Segment, Southbound Express Lane in Contra Costa County from Benicia to Walnut Creek (CC-680 North) and fund unforeseen cost increases in other corridors due to increased scope and external project delivery delays. Staff also seeks approval for a contract contingency of \$2,000,000 and to amend the Express Lane Program Expenditure Plan (Expenditure Plan) to accommodate the changes in the TransCore contract.

## Background

In June 2014 BAIFA awarded the TSI contract to TransCore after a competitive bid process. The \$63 million award consisted of \$45.5 million for implementation, \$9.2 million for maintenance, and a contingency of \$8.3 million. The original contract scope included host and lane subsystems for three corridors: I-680 Southern Segment Express Lanes in Contra Costa County between Walnut Creek and San Ramon (CC-680 South), I-880 Express Lanes in Alameda County between San Leandro and Milpitas (ALA-880) and I-80 Express Lanes in Solano County between Fairfield and Vacaville (SOL-80). To date, MTC has used a total of \$1.3 million in contingency for unexpected network and design changes in CC-680 South (\$0.5 million) and for toll system design of CC-680 North (\$0.8 million).

The program has changed dramatically since the contract award with significant impacts to TransCore's work.

- (1) Implementation delays The original TransCore contract ambitiously anticipated completion of the first corridor in spring 2016 and of the remaining two corridors by fall 2017. Due to factors largely external to TransCore's work, CC-680 South is the only corridor open today. Most significantly, Caltrans paving and median barrier projects on I-880 pushed out TransCore's start date for installation to August 2018 and pushed out the opening date to the end of 2019. The estimated cost of delays is \$4.7 million, reflecting increased costs of equipment and labor, and extended project management.
- (2) Change in corridors due to funding availability The region has not been successful in securing the nearly \$200 million needed for construction of SOL-80. As a result TransCore's near term work on SOL-80 is limited to design. BAIFA was able to leverage \$51.3 million in express lane funds to combine with \$70.7 million in mostly local funds to fully fund CC-680 North. The estimated net cost of adding CC-680 North installation to the TransCore contract and removing SOL-80 installation is \$2.3 million.
- (3) Transfer of scope from other contracts As a result of lessons learned during the implementation of CC-680 South, staff has transferred certain scope from the civil and backhaul contracts to TransCore.

This scope includes procurement and installation of variable toll message signs and fiber network splicing. The estimated additional cost to TransCore is \$1.4 million.

(4) Unforeseen design changes – Design changes, due largely to constraints on the civil improvements, have resulted in increased costs for the toll system. For example, toll equipment on I-880 must be relocated to draw power from more remote locations, requiring additional toll system infrastructure. The estimated cost of such changes is \$2.0 million.

In total, these changes equate to an estimated increase of just over \$10.4 million, of which \$7.0 million can be funded by the remaining contract contingency. To make up the difference and provide contract contingency for TransCore's remaining work on ALA-880 and CC-680 North, staff is requesting authority to add just over \$3.4 million plus a contingency of \$2.0 million.

Attachment A includes a summary of TransCore's and its project team's small business and disadvantaged business enterprise status.

#### **Expenditure Plan Modifications**

In July 2018 the Authority approved minor updates to the Expenditure Plan. At that time, staff mentioned we would return with further revisions to the Expenditure Plan for ALA-880 and CC-680 North based on the TransCore contract changes as described above.

To accommodate the changes, staff recommends updating the Expenditure Plan, BAIFA Resolution No. 9, by reallocating approximately \$5.4 million among Expenditure Plan line items, with no net change in total funding, as shown in Attachment B. Staff recommends using a combination of cost savings from closing out contracts on CC-680 South, transferring purchased toll equipment from SOL-80 to CC-680 North (equipment was purchased to take advantage of original contract pricing), savings from CC-680 North civil bid being less than engineer's estimate, and program contingency of \$2.3 million. Staff has also revised the program contingency need to \$6.1 million based on the estimated program risk exposure in the latest Quarterly Report (see Agenda Item 2b.) The reduction in program contingency need reflects the fact most of the funded program is now under contract, with board approved contract contingencies carried under individual project line items. These actions result in a balance of \$2.9 million in program contingency and an estimated unmet need of \$3.2 million. Staff will continue to actively manage risks and seek new funding opportunities, particularly for unfunded corridors.

#### Recommendation

Staff recommends that the Authority authorize (1) the Executive Director or his designee to negotiate and enter into a contract amendment with TransCore in an amount not to exceed \$3,441,327 to add CC-680 North as a new express lane corridor and fund unforeseen cost increases in other corridors, and (2) a contract contingency of \$2,000,000 to be used in the discretion of the Executive Director or his designee. Staff also recommends that the Authority amend the Express Lane Program Expenditure Plan (BAIFA Resolution No. 9, Revised) based on updates to the project.

Steve Heminger

## Attachment A (TransCore, LP) Small Business and Disadvantaged Business Enterprise Status

			DBE* Firm			SBE** Firm			
	Firm Name	Role on Project	Yes	If Yes, List #	No	Yes	If Yes, List #	No	
Prime Contractor	TransCore, LP	Toll System Integrator			Х			Х	
Subcontractor	Calcom, Inc.	Subcontractor			Х			Х	
Subcontractor	IBI Group	Subcontractor			Х			Х	
Subcontractor	KRC Safety	Subcontractor	Х	447		Х	6897		
Subcontractor	Lane Safety Co.	Subcontractor			Х	Х	45978		
Subcontractor	Nexus IS	Subcontractor			Х			Х	
Subcontractor	TJKM	Subcontractor	Х	40772		Х	38780		
Subcontractor	Traffic Solutions	Subcontractor			Х			Х	

\*Denotes certification by the California Unified Certification Program (CUCP). \*\*Denotes certification by the State of California.

#### Attachment B Recommended Revisions to Express Lanes Program Expenditure Plan

Escalated dollars (rounded to 000s)

Costs include project capital and support as well as program policy, management and coordination

_		Revised Expenditure Plan, July 2018				Revised Expenditure Plan, Sept 2018 changes highlighted in yellow					Proposed	
Line No.	Conversions and Gap Closure Opportunity Projects (1)	Cost	Regional Measure 2 (allocated)	Other Funding (allocated)	BATA Express Lane Funds	Unmet Funding Need	Cost	Regional Measure 2 (allocated)	Other Funding (allocated)	BATA Express Lane Funds	Unmet Funding Need	Adjustment to BATA Express Lane Funds
	Near-Term											
1	ALA-880: San Leandro - Milpitas	135,466			135,466	0	139,098			139,098	0	3,632
2	CC-680 Southern Segment: Walnut Creek - San Ramon	55,649			55,649	0	54,042			54,042	0	-1,606
3	CC-680 Northern Segment, Southbound (HOV Completion and (2) HOV Conversion):	123,906	19,425	53,194	51,288	0	127,386	19,425	54,338	53,622	C	2,335
4	SOL-80: Fairfield - Vacaville (3)	228,160	15,200		18,966	193,994	228,160	15,200		18,078	194,882	-888
5	Centralized Toll System Costs	33,574			33,574	0	32,367			32,367	0	-1,207
6	Program Costs: Planning, Coordination & Management	28,437			28,437	0	28,437			28,437	C	
7	Program Contingency	18,100			5,128	12,972	6,100			2,863	3,237	-2,265
8	Capitalized Start-up O&M (4)	16,000			16,000	0	16,000			16,000	0	
	Mid-Term											
9	ALA/CC-80 and Westbound Approaches to the Bay Bridge (80, 580, 880, West Grand): Crockett - Bay Bridge	193,000	5,000			188,000	193,000	5,000			188,000	
10	Dumbarton Bridge Westbound Approach (SR-84)	9,000			323	8,677	9,000			323	8,677	
11	San Mateo Bridge Westbound Approach (SR-92)	10,000			369	9,631	10,000			369	9,631	
13	CC-680 Northbound Express Lane Completion: (5) Walnut Creek - Benicia	390,000	1,511	20,000		368,489	390,000	1,511	20,000		368,489	
14	Centralized & Program Costs& Start Up O&M - Gap Closures & Future Conversions	TBD				0	TBD				0	
	TOTAL	1,241,293	41,136	73,194	345,200	781,763	1,233,590	41,136	74,338	345,200	772,916	0

Notes (1) Other Gap Closure and Extension projects not shown: ALA-880 extension northbound from Lewelling to Hegenberger;

SOL-80 gap closure from Carquinez Bridge to Red Top Road; SOL-80 extension east of I-505; SOL-680 gap closure

(2) Cost represents the total for HOV Completion and Conversion to Express Lanes. Other funds committed to the HOV Completion portion include Measure J (\$38.7M) and STIP (\$15.6M)

July 2018 revisions to the table: inclusion of total cost and funding for HOV completion (the prior table included only the express lane program contribution) and technical corrections to the total cost and RM2 funding amounts

(3) Represents the total for the West and East segments, listed previously as two separate projects. The project is funded through the design phase.

(4) A portion of the BAIFA funds was transferred to the FY 2017-18 BAIFA Operating Budget for I-680 start up operations. Any unused funds will be returned at the close of FY 2017-18.

(5) Represents completion of the HOV lane through Walnut Creek to SR-242 and conversion of the existing HOV lane north of SR-242, which were previously listed separately

## REQUEST FOR AUTHORITY APPROVAL Summary of Contract Amendment and Contingency Increase

Work Item No.:	6841, 6844, and 6846
Contractor:	TransCore, LP., San Diego, CA
Work Project Title:	Regional Express Lane Toll System Integrator
Purpose of Project:	Design, implement, and maintain BAIFA's express lane toll system
Brief Scope of Work:	The amendment replaces the SOL-80 express lane implementation and maintenance with the design, implementation, and maintenance of a new express lane corridor, CC-680 North. The amendment also provides funding to address unforeseen corridor details, system enhancements, and costs associated with significant schedule delays not caused by TransCore.
Project Cost Not to Exceed:	Contract: \$3,441,327 (this amendment) Contingency: \$2,000,000 (this authority approval) Total Contract before this amendment: \$56,776,572 Contingency before this amendment: \$6,223,428 Total Contract after this amendment: \$66,441,327 Contingency after this amendment: \$8,223,428
Funding Source:	BATA Express Lanes Capital Project Budget
Fiscal Impact:	Funding is included in the Express Lane Capital Project Budget, as adopted in the FY 2018-19 Toll Bridge Program Operating and Capital Budgets (BATA Resolution No. 124), subject to amendment of the Express Lane Program Expenditure Plan (BAIFA Resolution No. 9, Revised)
Motion by Authority:	That the Executive Director or his designee is authorized to negotiate and enter into a contract amendment with TransCore, LP to provide the services described above and in the Executive Director's memorandum dated September 12, 2018, and the Chief Financial Officer is directed to set aside funds for such contract amendment in the amount of \$3,441,327 and contingency in the amount of \$2,000,000 to be used in the discretion of the Executive Director or his designee, subject to approval of the Express Lane Program Expenditure Plan (BAIFA Resolution No. 9, Revised).
BAIFA:	
	Jake Mackenzie, Chair
Approved:	Date: September 26, 2018

Date: June 24, 2015 W.I.: 6840 Referred by: BAIFA Revised: 12/16/15-BAIFA 06/28/17-BAIFA 07/25/18-BAIFA 09/26/18-BAIFA

## ABSTRACT

## BAIFA Resolution No. 9, Revised

This resolution establishes an expenditure plan for the Express Lane Program funds in the BATA Capital Budget.

This resolution was revised on December 16, 2015 to shift funds from line items for Program Contingency and Centralized Toll System Costs to the line item for CC-680 Southern Segment in order to fully fund the Backhaul for the CC-680 Southern Segment express lane.

This resolution was revised on June 28, 2017 to add funds to the Expenditure Plan and shift funds from the line item for Program Contingency to the line item for the ALA-880 Express Lanes.

This resolution was revised on July 25, 2018 to: reflect additional funding to connect Caltrans freeway management equipment to the Backhaul within the I-880 Express Lane project limits and to reflect updated costs for certain corridors.

The resolution was revised on September 26, 2018 to reflect adjustments in funding for the ALA-880, CC-680 Northern Segment, CC-680 Southern Segment, centralized toll system and program contingency project line items.

Discussion of this item can be found in the Executive Director's Memoranda to the Authority dated June 17, 2015, December 9, 2015, June 21, 2017, July 11, 2018 and September 12, 2018.

#### Date: June 24, 2015 W.I.: 6840 Referred by: BAIFA

#### RE: Express Lane Program Expenditure Plan

## BAY AREA INFRASTRUCTURE FINANCING AUTHORITY RESOLUTION NO. 9

WHEREAS, the Metropolitan Transportation Commission ("MTC") and the Bay Area Toll Authority ("BATA") have executed a joint exercise of powers agreement dated as of August 1, 2006, as amended, which creates and establishes the Bay Area Infrastructure Financing Authority ("BAIFA"); and

WHEREAS, the Metropolitan Transportation Commission ("MTC") has requested that the Bay Area Infrastructure Financing Authority ("BAIFA") assist MTC in the development, financing, and operation of high-occupancy toll lanes in MTC's jurisdiction; and

WHEREAS, the BATA Capital Budget and Long-Range Plan includes funding for Express Lanes projects; and

WHEREAS, BAIFA wishes to establish an Express Lane Program Expenditure Plan to direct such funding to Express Lanes projects on the I-80, I-680 and I-80 corridors in Alameda, Contra Costa, and Solano Counties, now; therefore, be it

RESOLVED, that BAIFA directs the available funding as shown in the Express Lane Program Expenditure Plan in Attachment A to implement express lanes on the I-80, I-680 and I-880 corridors in Alameda County, Contra Costa County and Solano County.

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY

Dave Cortese, Chair

The above resolution was entered into by the Bay Area Infrastructure Financing Authority at a regular meeting of the Authority held in Oakland, June 24, 2015.

Date: June 24, 2015 W.I.: 6840 Referred by: BAIFA Revised: 12/16/15-BAIFA 06/28/17-BAIFA 07/25/18-BAIFA 09/26/18-BAIFA

> Attachment A BAIFA Resolution No. 9 Page 1 of 1

## **Express Lane Program Expenditure Plan**

Escalated dollars (rounded to 000s)

Costs include project capital and support as well as program policy, management and coordination

Line No.	Conversions and Gap Closure Opportunity Projects (1)	Cost	Regional Measure 2 (allocated)	Other Funding (allocated)	BATA Express Lane Funds	Unmet Funding Need	Proposed Adjustment to BATA Express Lane Funds	
	Near-Term							
1	ALA-880: San Leandro - Milpitas	139,098			139,098	0	3,632	
2	CC-680 Southern Segment: Walnut Creek - San Ramon	54,042			54,042	0	-1,606	
3	CC-680 Northern Segment, Southbound (HOV Completion and (2) HOV Conversion):	127,386	19,425	54,338	53,622	0	2,335	
4	SOL-80: Fairfield - Vacaville (3)	228,160	15,200		18,078	194,882	-888	
5	Centralized Toll System Costs	32,367			32,367	0	-1,207	
6	Program Costs: Planning, Coordination & Management	28,437			28,437	0		
7	Program Contingency	6,100			2,863	3,237	-2,265	
8	Capitalized Start-up O&M (4)	16,000			16,000	0		
	Mid-Term							
9	ALA/CC-80 and Westbound Approaches to the Bay Bridge (80, 580, 880, West Grand): Crockett - Bay Bridge	193,000	5,000			188,000		
10	Dumbarton Bridge Westbound Approach (SR-84)	9,000			323	8,677		
11	San Mateo Bridge Westbound Approach (SR-92)	10,000			369	9,631		
13	CC-680 Northbound Express Lane Completion: (5) Walnut Creek - Benicia	390,000	1,511	20,000		368,489		
14	Centralized & Program Costs& Start Up O&M - Gap Closures & Future Conversions	TBD				0		
	TOTAL	1,233,590	41,136	74,338	345,200	772,916	0	

Notes (1) Other Gap Closure and Extension projects not shown: ALA-880 extension northbound from Lewelling to Hegenberger;

SOL-80 gap closure from Carquinez Bridge to Red Top Road; SOL-80 extension east of I-505; SOL-680 gap closure

(2) Cost represents the total for HOV Completion and Conversion to Express Lanes. Other funds committed to the HOV Completion portion include Measure J (\$38.7M) and STIP (\$15.6M)

(3) Represents the total for the West and East segments, listed previously as two separate projects. The project is funded through the design phase.

(4) A portion of the BAIFA funds was transferred to the FY 2017-18 BAIFA Operating Budget for I-680 start up operations. Any unused funds will be returned at the close of FY 2017-18. (5) Represents completion of the HOV lane through Walnut Creek to SR-242 and conversion of the existing HOV lane north of SR-242, which were previously listed separately