

## Low Carbon Transit Operations Program (LCTOP)

### PROJECT DESCRIPTION AND ALLOCATION REQUEST (SUMMARY)

#### **Project Information:**

Lead Agency:	Metropolitan Transportation Commission
Project Name:	Clipper® Fare Payment System
Project Type: <i>See Attachment A</i>	A4: Network/fare integration
Description of Project (Short):	Replace universal fare card equipment and devices on transit operator vehicles including buses and rail vehicles. Equipment includes network equipment, hardware, software and peripherals that have reached the end of its useful service life. Replenish the inventory of spare devices.
Project Location:	Transit agencies throughout the SF Bay Area
Project Start Date (anticipated):	6/1/2016
Project End Date (anticipated):	5/31/2018

#### **Funding Information:**

Funding Year:	FY 15/16 - FY 17/18
Requested Amount of PUC 99313:	\$3,559,290
Requested Amount of PUC 99314:	\$0
Total LCTOP Funding:	\$3,559,290
Total Project Cost:	\$6,559,290

#### **Project Benefits:**

##### Greenhouse Gas Benefits (off of worksheet)

Estimated GHG Reduction:	0.0006
Project Life (years):	5
Estimated Total GHG Reduction:	0.0030

##### Disadvantaged Communities (DAC) Benefits:

Does your service area have a DAC?	Yes
Does the Project Benefit a DAC?	Yes
Identify the DAC Census Tracts?	There are numerous areas that are impacted. See Attachment 1 for more information.
Identify Specific DAC Benefit Criteria? <i>See Attachment B</i>	LCTP 1D: Project provides greater mobility and increased access to clean transportation for disadvantaged community residents by placing services in a disadvantaged community, including ride-sharing, car-sharing, or other advanced technology mobility options.
Qualitative Description of DAC Benefit?	Clipper® actively seeks to ensure that all transit riders have access to the benefits of the transit fare payment program. As Clipper® is introduced on each transit agency or if paper fare media are eliminated in favor of Clipper, MTC provides extensive customer education through culturally and linguistically appropriate materials such as car cards, ticket office and transit center signage, and advertising. MTC also conducts outreach activities--also in appropriate languages--to introduce Clipper®, distribute free cards and explain how to use it. MTC also seeks to make cards widely available through social service and other nonprofit organizations, waiving the \$3 card fee for organizations that serve low-income, limited English-proficient, transit dependent or other underrepresented transit rider groups.
Describe the DAC Need Project Addresses?	Clipper® improves transit connectivity at stations and stops in disadvantaged communities. Replacing aging equipment will allow Clipper® to continue to meet the fare collection needs of the region.
Total GGRF \$ Allocated to DAC	\$3,559,290

**Co-benefit**

Critical Air Pollution Reduction:	Reduction due to decrease idling due to faster boardings
VMT Reduction:	Increases transit ridership due to ease of fare payment and travel time reliability
Ridership Increase	Increases transit ridership due to ease of fare payment and travel time reliability
Fuel Use Reduction:	
Energy Use Reduction:	Reduction due to decrease idling due to faster boardings

## Low Carbon Transit Operations Program (LCTOP)

### PROJECT DESCRIPTION AND ALLOCATION REQUEST (ALLOCATION)

	<b>Regional Entity:</b>	MTC
<b>Project Lead:</b> Metropolitan Transportation Commission	<b>County:</b>	
<b>Project Title:</b> Clipper® Fare Payment System		

**Project Lead:**

I certify the scope, cost, schedule, and benefits as identified in the attached Allocation Request (Request) and attachments are true and accurate and demonstrate a fully funded operable project. I understand the Request is subject to any additional restrictions, limitations or conditions that may be enacted by the State Legislature, including the State's budgetary process and/or auction receipts. In the event the project cannot be completed as originally scoped, scheduled and estimated, or the project is terminated prior to completion, project lead shall, at its own expense, ensure that the project is in a safe and operable condition for the public. I understand this project will be monitored by the California Department of Transportation - Division of Rail and Mass Transportation.

**Name:** Alix Bockelman

**Signature:** \_\_\_\_\_

**Title:** Deputy Executive Director - Policy

**Agency:** Metropolitan Transportation Commission

**Date:** 26-Jan-16                      **Amount:** \$3,559,290

**Contributing Sponsor(s):**

\*If this project includes funding from more than one project sponsor, the project lead above becomes the "recipient agency" and the additional contributing project sponsor(s) must also sign and state the amount and type of LCTOP funds (PUC Sections 99313 and 99314) contribution. Sign below or **attach a separate officially signed letter providing that information. If there is more than one contributing sponsor, please submit additional page, or a letter from the additional contributors.**

**Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Agency:** \_\_\_\_\_

**Date:** \_\_\_\_\_                      **Amount:** \_\_\_\_\_

## Low Carbon Transit Operations Program (LCTOP)

### PROJECT DESCRIPTION AND ALLOCATION REQUEST (FUNDING)

	<i>LCTOP Allocation</i>	<i>15/16</i>	<i>16/17</i>	<i>17/18</i>
<b>Request Amount per PUC 99313:</b>	\$3,559,290	\$0	\$0	\$0
<b>Request Amount per PUC 99314:</b>	\$0	\$0	\$0	\$0
<b>Total Project Allocation Request:</b>	\$3,559,290	\$0	\$0	\$0
<b>Project Title:</b>	Clipper® Fare Payment System			
<b>Project Location/Address:</b>	SF Bay Area			

### Table 1: Project Lead Information

#### Legislative District Numbers

Agency Name: Metropolitan Transportation Commission	Assembly: <u>10,15,19,14,11,16,20,27,25,24,28,2</u>
Contact Person: <b>Shauna Harper</b>	Senate: <u>2,3,8,7,8,9,10,11,13,15</u>
Contact Phone #: <b>510.817.5868</b>	Congressional: <u>2,5,11,14,18,19</u>
Email Address: <a href="mailto:sharper@mtc.ca.gov">sharper@mtc.ca.gov</a>	Amount: _____ PUC Funds Type: _____
Address: <u>101 8th St</u>	\$ <u>3559290</u> _____
<u>Oakland, CA</u>	\$ _____

### Table 2: Contributing Sponsor Information

Name: _____	Amount :	PUC Fund Type:
Contact: _____	\$ _____	
Contact Phone #: _____	\$ _____	
Email Address: _____		
Address: _____		
<i>Other Contributing Sponsors: (Attach sheet with contact information)</i>	Amount:	PUC Fund Type:
Name: _____	\$ _____	
Name: _____	\$ _____	
Name: _____	\$ _____	
<b>TOTAL \$3,559,290</b>		

(\*Contributing project sponsors provide signed letters of verification as to amount and eligibility or sign cover page)

## Low Carbon Transit Operations Program (LCTOP)

### PROJECT DESCRIPTION AND ALLOCATION REQUEST (PROJECT)

**Table 3: Type of Project**

See Attachment A for category of project (example: Category 1A Implement new or expanded transit service (for new routes or expansion of existing routes)).

Operations Projects			Capital Projects		
	A1		Ai		Bi
	A2		Aii		Bii
	A3		Aiii		Bii
x	A4		Aiv		
	A5				

**Table 4: Project Summary**

- a) Project Description** - Describe the project in your own words, using comprehensive overall project description regarding improvements to be made, increased level of service and performance goals.
- Clipper® is a project of the Metropolitan Transportation Commission (MTC), the transportation planning, financing and coordinating agency for the nine-county San Francisco Bay Area. The Clipper card itself is an all-in-one transit card that keeps track of any passes, discount tickets, ride books and cash value that are loaded onto it, while applying all applicable fares, discounts and transfer rules. Clipper® is currently accepted by all of the major urbanized area transit operators in the Bay Area as well as the suburban bus operators in Napa, Solano, Contra Costa, Sonoma and Marin Counties. The Clipper® system is made up of several components, including the Clipper® Central System, on-vehicle hardware, station and platform hardware, point-of-sale equipment, proof-of-payment devices, and various network servers, peripherals, and infrastructure. The Clipper® system rollout occurred in four major phases, beginning with a limited-duration pilot in 2002 and a full-scale deployment of Clipper® over the past ten years with the major operators bring brought online between 2006 and 2010, and the suburban bus operators in 2014 and 2015.
- Clipper® service life calculations begin on the date that the Clipper® Contractor (currently Cubic Transportation Systems, Inc.) completes all of the requirements for the equipment to be put into revenue service (“Revenue Ready”) and resolves all identified device and software issues (“Punch List Completion”). All Clipper® equipment installed during the early deployment phases in the program including the on-board equipment has reached, passed, or is approaching end of service life. This project will replace universal fare card equipment and devices on transit operator vehicles including buses and rail vehicles. Equipment includes network equipment, hardware, software and peripherals that have reached the end of its useful service life. Replenish the inventory of spare devices.
- b) Project Location** - Describe the location of the project. Also provide an 8 1/2" X 11" project site map that shows the transit service area and project location. Use link to CalEPA website for information, <http://www.calepa.ca.gov/EnvJustice/GHGInvest/default.htm>. Clipper is currently accepted by all of the major urbanized area transit operators in the Bay Area as well as several suburban bus and rail operators in Napa, Solano, and Marin Counties. Clipper does serve disadvantaged communities as designated by CalEPA as SB535. The attached map shows the locations of the major service area with Clipper penetration. This project will fund fare collection equipment replacement on transit systems in covering all 9 counties in the Bay Area.

**c) Project Life - For capital projects, state the Useful Life of the Project. For operations project state the number of months service will operate.**

Capital: Most of the Clipper capital equipment has a service life of approximately 5 years.  
 Operations:

**Low Carbon Transit Operations Program (LCTOP)**

**PROJECT DESCRIPTION AND ALLOCATION REQUEST (BENEFITS/OUTCOMES)**

**Table 5: Description of Major Benefits/Outcomes**

**a) Greenhouse Gas Reduction** - Describe how this project will reduce greenhouse gases and any assumptions or data that support this description. For example, "The expanded transit service will reduce VMT and greenhouse gas emissions by replacing auto trips with transit trips. Initial estimates indicate that the expansion could add 50 commuter bus riders per day to replace an average auto trip of 10 miles each way." If available, please provide the expected amount of VMT reductions and greenhouse gas reductions.

The use of Clipper® in lieu of cash fares results in faster vehicle boarding on buses equipped with Clipper® readers, which means fewer emissions from less idling; and faster travel times and service reliability from reduced vehicle bunching. The emissions reduction benefits result based on time savings from using Clipper®. Time savings are realized from more efficient boarding resulting in shorter vehicle dwell times.

There are additional emission reductions resulting from Clipper®, such as more reliable transit service through less vehicle bunching and shorter idling time at bus stops. The total GHG reductions are estimated at 2,019 MTCO<sub>2e</sub>.

**b) Increased Mode Share** - Describe how this project will directly increase mode share.

The Clipper® program increases transit mode share by making transit a more attractive alternative due to ease of use because it no longer requires exact change or multiple tickets to board. It also increases travel time reliability for transit because Clipper® reduces idling time and decreases boarding time, which increases the attractiveness of transit.

**c) Disadvantaged Communities (DAC) Project Criteria**

**See Attachment B** for DAC Criteria to Evaluate Projects (example: Category 1B Project provides transit incentives to residents with a physical address in a disadvantage community (e.g., vouchers, reduced fares, transit passes).

**Low Carbon Transportation Projects**

<input type="checkbox"/>	1A	<input type="checkbox"/>	2A
<input type="checkbox"/>	1B	<input type="checkbox"/>	2B
<input type="checkbox"/>	1C	<input type="checkbox"/>	2C
<input checked="" type="checkbox"/>	1D		

**Transit Projects**

<input type="checkbox"/>	1A	<input type="checkbox"/>	1G	<input type="checkbox"/>	2E
<input type="checkbox"/>	1B	<input type="checkbox"/>	1H	<input type="checkbox"/>	2F
<input type="checkbox"/>	1C	<input type="checkbox"/>	2A	<input type="checkbox"/>	2G
<input type="checkbox"/>	1D	<input type="checkbox"/>	2B	<input type="checkbox"/>	2H
<input type="checkbox"/>	1E	<input type="checkbox"/>	2C	<input type="checkbox"/>	2I
<input type="checkbox"/>	1F	<input type="checkbox"/>	2D		

**d) Disadvantaged Communities (DAC) (if applicable\*)** - Describe how this project will directly benefit the DAC(s) within your service area in your own words. **For agencies whose service area includes disadvantaged communities, at least 50 percent of the total moneys received shall be expended on projects that will benefit disadvantaged communities.**

Clipper<sup>®</sup> actively seeks to ensure that all transit riders have access to the benefits of the transit fare payment program. As Clipper<sup>®</sup> is introduced on each transit agency or if paper fare media are eliminated in favor of Clipper<sup>®</sup>, MTC provides extensive customer education through culturally and linguistically appropriate materials such as car cards, ticket office and transit center signage, and advertising. MTC also conducts outreach activities--also in appropriate languages--to introduce Clipper<sup>®</sup>, distribute free cards and explain how to use it. MTC also seeks to make cards widely available through social service and other nonprofit organizations, waiving the \$3 card fee for organizations that serve low-income, limited English-proficient, transit dependent or other underrepresented transit rider groups.

## Low Carbon Transit Operations Program (LCTOP)

### PROJECT DESCRIPTION AND ALLOCATION REQUEST (BENEFITS/OUTCOMES)

**Table 5: Description of Major Benefits/Outcomes**

**e) Co-Benefits** - Check all additional Benefits/Outcomes.

<input type="checkbox"/> Improved Safety	<u>x</u>	Coordination with Educational Institutions
<input type="checkbox"/> Improved Public Health		<u>X</u> College/University <u>X</u> Grades K-12
<input type="checkbox"/> Reduced Operating/Maintenance Cost		Promotes Active Transportation (walking, biking)
<u>X</u> Increase System Reliability	<u>X</u>	Promotes integration with other modes of transportation
<input type="checkbox"/> Other Benefits (describe below)		

**f) Co-Benefits** - Describe benefits indicated above in d) and any other benefits not listed.

The Clipper<sup>®</sup> card provides seamless use of public transit across different modes, geographic areas, and service types thereby promoting and encouraging public transit as preferred mode. The system provides the flexibility to load passes, autoload dollars, and recover accounts for its disadvantaged users. It provides transit fare card access to seniors and youth who qualify for a discounted rate.

**Table 6: Project Schedule**

Capital Projects	
Begin Construction Phase ( <b>Contract Award</b> )	
End Construction Phase ( <b>Contract Acceptance</b> )	
Begin Vehicle/Equipment Order ( <b>Contract Award</b> )	
End Vehicle/Equipment Order ( <b>Contract Acceptance</b> )	
Begin Closeout Phase	
End Closeout Phase	
Operations Projects	
Begin expanded/enhanced transit services	6/1/2016
End expanded/enhanced transit services	5/31/2018
Begin Closeout Phase	
End Closeout Phase	

**START DATE FOR LCTOP FUNDED PHASES MAY NOT PROCEED PROJECT APPROVAL LETTER.**

*Pre-construction costs (e.g. design, environmental and right-a-way) are not eligible to be funded by LCTOP funds, they must be funded by other sources.*

## Low Carbon Transit Operations Program (LCTOP)

### PROJECT DESCRIPTION AND ALLOCATION REQUEST (OPERATIONS DESCRIPTION)

#### Table 7: Operations Project Description

a) Describe the operating plan for this system.

Clipper<sup>®</sup> operational costs are governed by the Clipper<sup>®</sup> MOU agreement with the transit partners and the contract with Cubic, the Clipper<sup>®</sup> card contractor. MTC's share of the Clipper<sup>®</sup> operations costs are primarily funded with STA funds. Operations are predicted to be funded through the current Cubic contract term ending in November 2019. This project will fund the replacement of bus fare collection equipment that has reached the end of its useable service life. This equipment will be used to collect fare revenue to operate the regional transit system.

b) Describe the fare structure for this system.

Clipper fare structure varies based on the transit operator's fare structure. Clipper does not have an independent fare structure.

c) Describe the assumptions and process that were used to develop the ridership projections shown in the request.

Clipper ridership projections are based on transit agency ridership projections and the historic Clipper penetration rate. The Clipper system has reached steady state for most of the major transit operators since 2010 and the penetration rates and ridership for each of the transit agencies is collected and calculated monthly.

d) Describe the assumptions and process for how the operating cost projections were developed.

Clipper<sup>®</sup> operating costs are made up of fixed monthly costs and costs that vary depending on card accounts, credit card fees, etc. The costs are then divided between MTC and the transit agencies using a formula that takes into account Clipper<sup>®</sup> revenue and Clipper<sup>®</sup> transactions for each of the transit agencies. Operating cost projections are made using a regression analysis performed on previous actual monthly operating costs to understand trends over time. These costs are also modelled using a standard 3% price adjustment factor that is part of the existing Cubic contract.

Low Carbon Transit Operations Program  
Project Description and Allocation Request (Summary)  
Clipper® Fare Payment System  
Attachment 1: DAC Tracts

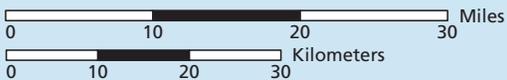
OBJECTID

	Tract	pop2010	County	Tract_TXT
1	6085503601.0000000000	2992	Santa Clara	06085503601
2	6085503110.0000000000	4618	Santa Clara	06085503110
3	6085503602.0000000000	4741	Santa Clara	06085503602
4	6085503105.0000000000	2484	Santa Clara	06085503105
5	6085512602.0000000000	2997	Santa Clara	06085512602
6	6085500100.0000000000	6339	Santa Clara	06085500100
7	6085503709.0000000000	5088	Santa Clara	06085503709
8	6085505202.0000000000	5867	Santa Clara	06085505202
9	6085504319.0000000000	6936	Santa Clara	06085504319
10	6085501000.0000000000	4769	Santa Clara	06085501000
11	6085501501.0000000000	4278	Santa Clara	06085501501
12	6085501401.0000000000	3295	Santa Clara	06085501401
13	6085501502.0000000000	4549	Santa Clara	06085501502
14	6085503117.0000000000	3120	Santa Clara	06085503117
15	6085501600.0000000000	6854	Santa Clara	06085501600
16	6085501700.0000000000	4916	Santa Clara	06085501700
17	6085503121.0000000000	4499	Santa Clara	06085503121
18	6085503122.0000000000	3449	Santa Clara	06085503122
19	6085501102.0000000000	4477	Santa Clara	06085501102
20	6085504318.0000000000	5265	Santa Clara	06085504318
21	6085505100.0000000000	3027	Santa Clara	06085505100
22	6085512310.0000000000	3791	Santa Clara	06085512310
23	6085503214.0000000000	7253	Santa Clara	06085503214
24	6081601300.0000000000	7510	San Mateo	06081601300
25	6081612000.0000000000	7327	San Mateo	06081612000
26	6013302005.0000000000	6592	Contra Costa	06013302005
27	6013311000.0000000000	5001	Contra Costa	06013311000
28	6013307201.0000000000	3467	Contra Costa	06013307201
29	6013307102.0000000000	5038	Contra Costa	06013307102
30	6013314102.0000000000	5923	Contra Costa	06013314102
31	6013382000.0000000000	6964	Contra Costa	06013382000
32	6013310000.0000000000	5641	Contra Costa	06013310000
33	6013365002.0000000000	5462	Contra Costa	06013365002
34	6013314104.0000000000	7118	Contra Costa	06013314104
35	6013314103.0000000000	5546	Contra Costa	06013314103
36	6013381000.0000000000	6097	Contra Costa	06013381000
37	6013379000.0000000000	6117	Contra Costa	06013379000
38	6013377000.0000000000	6962	Contra Costa	06013377000
39	6013376000.0000000000	5962	Contra Costa	06013376000
40	6013375000.0000000000	4389	Contra Costa	06013375000

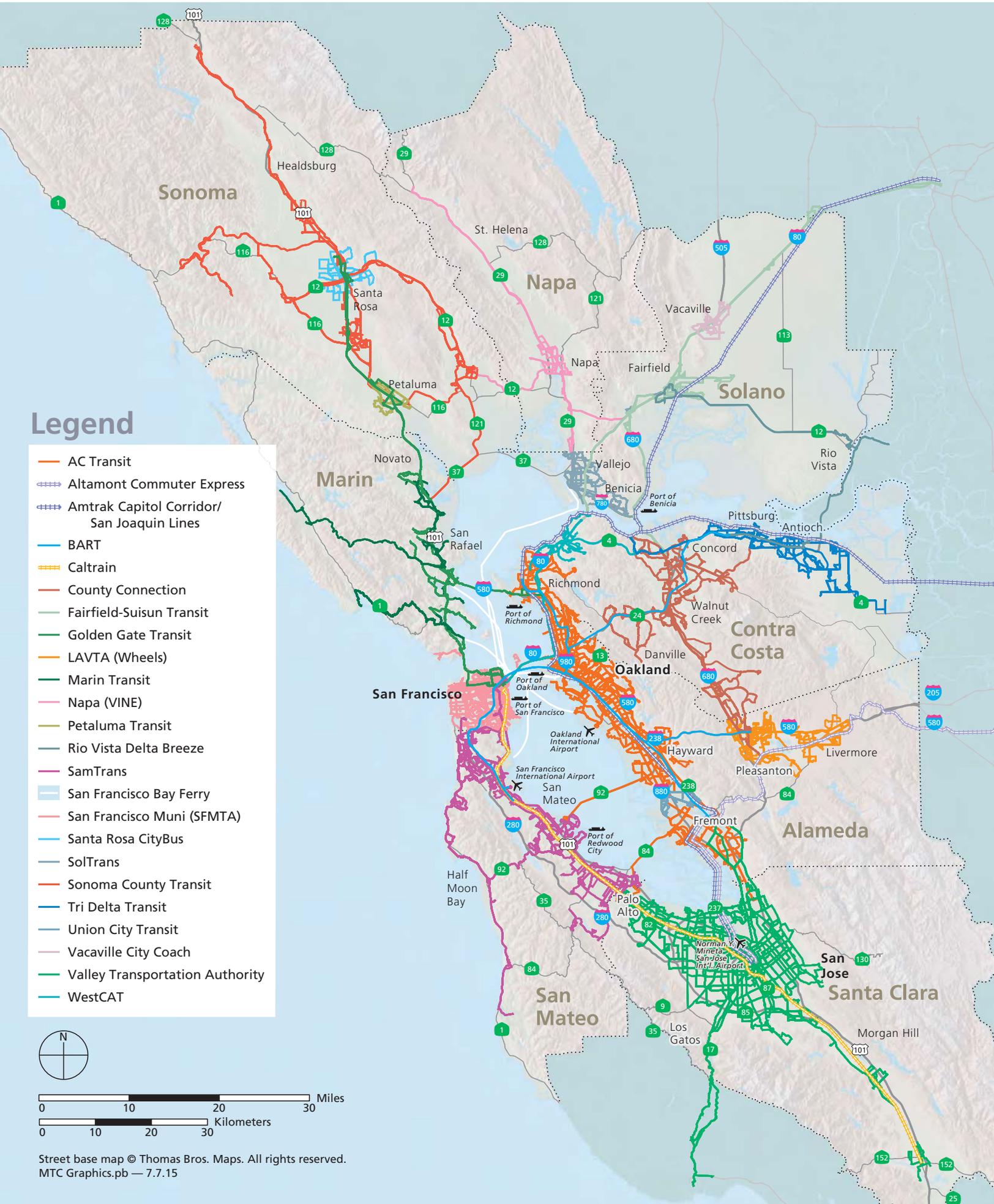
41	6013368002.00000000000	3404	Contra Costa	06013368002
42	6013358000.00000000000	5298	Contra Costa	06013358000
43	6013313206.00000000000	5757	Contra Costa	06013313206
44	6013306004.00000000000	3324	Contra Costa	06013306004
45	6013320001.00000000000	3615	Contra Costa	06013320001
46	6013313102.00000000000	3984	Contra Costa	06013313102
47	6013313101.00000000000	7251	Contra Costa	06013313101
48	6013312000.00000000000	2292	Contra Costa	06013312000
49	6001407300.00000000000	2598	Alameda	06001407300
50	6001409400.00000000000	4306	Alameda	06001409400
51	6001409000.00000000000	3552	Alameda	06001409000
52	6001437200.00000000000	6755	Alameda	06001437200
53	6001409100.00000000000	2255	Alameda	06001409100
54	6001433200.00000000000	6897	Alameda	06001433200
55	6001436900.00000000000	6724	Alameda	06001436900
56	6001436200.00000000000	3827	Alameda	06001436200
57	6001410500.00000000000	2193	Alameda	06001410500
58	6001406400.00000000000	2145	Alameda	06001406400
59	6001402500.00000000000	1784	Alameda	06001402500
60	6001401300.00000000000	3528	Alameda	06001401300
61	6001407500.00000000000	3931	Alameda	06001407500
62	6001402700.00000000000	1569	Alameda	06001402700
63	6001408900.00000000000	3414	Alameda	06001408900
64	6001403000.00000000000	2788	Alameda	06001403000
65	6001406100.00000000000	4381	Alameda	06001406100
66	6001437101.00000000000	6448	Alameda	06001437101
67	6001433103.00000000000	3530	Alameda	06001433103
68	6001402400.00000000000	2351	Alameda	06001402400
69	6001402800.00000000000	3345	Alameda	06001402800
70	6001402600.00000000000	1151	Alameda	06001402600
71	6001432501.00000000000	4839	Alameda	06001432501
72	6001409500.00000000000	3122	Alameda	06001409500
73	6001407200.00000000000	6746	Alameda	06001407200
74	6001408800.00000000000	5547	Alameda	06001408800
75	6001401400.00000000000	4314	Alameda	06001401400
76	6001406000.00000000000	3450	Alameda	06001406000
77	6001409200.00000000000	3152	Alameda	06001409200
78	6001401700.00000000000	2667	Alameda	06001401700
79	6001409300.00000000000	5229	Alameda	06001409300
80	6001432400.00000000000	5814	Alameda	06001432400
81	6075012502.00000000000	3821	San Francisco	06075012502
82	6075017801.00000000000	3499	San Francisco	06075017801
83	6075023103.00000000000	3725	San Francisco	06075023103
84	6095250701.00000000000	2962	Solano	06095250701
85	6095253500.00000000000	8423	Solano	06095253500

# Legend

-  AC Transit
-  Altamont Commuter Express
-  Amtrak Capitol Corridor/  
San Joaquin Lines
-  BART
-  Caltrain
-  County Connection
-  Fairfield-Suisun Transit
-  Golden Gate Transit
-  LAVTA (Wheels)
-  Marin Transit
-  Napa (VINE)
-  Petaluma Transit
-  Rio Vista Delta Breeze
-  SamTrans
-  San Francisco Bay Ferry
-  San Francisco Muni (SFMTA)
-  Santa Rosa CityBus
-  SolTrans
-  Sonoma County Transit
-  Tri Delta Transit
-  Union City Transit
-  Vacaville City Coach
-  Valley Transportation Authority
-  WestCAT



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MTC Graphics.pb — 7.7.15





## Low Carbon Transit Operations Program TOTAL PROJECT COST AND FUNDING PLAN

The following Funding Plan has been reviewed and approved by the undersigned. It includes a complete list of funds for this project and is the total cost of the project, including LCTOP funds.

Shauna Harper	510.817.5868	
Approval Authority: Sign and date	Alix Bockelman (510) 817-5850	

Shaded fields are automatically calculated. Please do not fill these fields.

Proposed Total Project Cost								Project
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED	0	0	0	0	0	0	0	0
PS&E	0	0	0	0	0	0	0	0
R/W	0	0	0	0	0	0	0	0
CON	0	2,000,000	1,000,000	0	0	0	0	3,000,000
Veh/Equip Purchase	0	3,559,290	0	0	0	0	0	3,559,290
Operations/Other	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>5,559,290</b>	<b>1,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,559,290</b>

Low Carbon Transit Operations Program (LCTOP)								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase		1,779,645	1,779,645					3,559,290
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>1,779,645</b>	<b>1,779,645</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,559,290</b>

Funding Source: TCP								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON		2,000,000	1,000,000					3,000,000
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>2,000,000</b>	<b>1,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,000,000</b>

Funding Source:								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Funding Source:								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



## Low Carbon Transit Operations Program TOTAL PROJECT COST AND FUNDING PLAN

<b>Funding Source:</b>								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>Funding Source:</b>								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>Funding Source:</b>								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>Funding Source:</b>								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>Funding Source:</b>								
Component	Prior	FY 2015-16	FY 2016-17	FY _____	FY _____	FY _____	FY _____	Total
PA&ED								0
PS&E								0
R/W								0
CON								0
Veh/Equip Purchase								0
Operations/Other								0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



**Low Carbon Transit Operations Program (LCTOP)  
AUTHORIZED AGENT**

AS THE Executive Director  
(Chief Executive Officer / Director / President / Secretary)

OF THE Metropolitan Transportation Commission  
(Name of County/City Organization)

I hereby authorize the following individual(s) to execute for and on behalf of the named Regional Entity/Transit Operator, any actions necessary for the purpose of obtaining Low Carbon Transit Operations Program (LCTOP) funds provided by the California Department of Transportation, Division of Rail and Mass Transportation. I understand that if there is a change in the authorized agent, the project sponsor must submit a new form. This form is required even when the authorized agent is the executive authority himself. I understand the Board must provide a resolution approving the Authorized Agent. The Board Resolution appointing the Authorized Agent is attached.

Alix Bockelman, Deputy Executive Director, Policy OR  
(Name and Title of Authorized Agent)

Andrew B. Fremier, Deputy Executive Director, Operations OR  
(Name and Title of Authorized Agent)

\_\_\_\_\_  
(Name and Title of Authorized Agent)

Steve Heminger Executive Director  
(Print Name) (Title)

Signature Pending Commission Action on February 24, 2016  
(Signature)

Approved this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Attachment: Board Resolution approving Authorized Agent

## Low Carbon Transit Operations Program (LCTOP) CERTIFICATIONS AND ASSURANCES

**Project Sponsor:** Alix Bockelman

**Agency Name:** MTC

**Effective Date of this Document:** January 27, 2016

The California Department of Transportation (Department) has adopted the following certifications and assurances for the Low Carbon Transit Operations Program. As a condition of the receipt of LCTOP funds, project lead must comply with these terms and conditions.

### A. General

- (1) The project lead agrees to abide by the current LCTOP Guidelines and applicable legal requirements.
- (2) The project lead must submit to the Department a signed Authorized Agent form designating the representative who can submit documents on behalf of the project sponsor and a copy of the board resolution appointing the Authorized Agent.

### B. Project Administration

- (1) The project lead certifies that required environmental documentation is complete before requesting an allocation of LCTOP funds. The project lead assures that projects approved for LCTOP funding comply with Public Resources Code § 21100 and § 21150.
- (2) The project lead certifies that a dedicated bank account for LCTOP funds only will be established within 30 days of receipt of LCTOP funds.
- (3) The project lead certifies that when LCTOP funds are used for a transit capital project, that the project will be completed and remain in operation for its useful life.
- (4) The project lead certifies that it has the legal, financial, and technical capacity to carry out the project, including the safety and security aspects of that project.
- (5) The project lead certifies that they will notify the Department of pending litigation, dispute, or negative audit findings related to the project, before receiving an allocation of funds.
- (6) The project lead must maintain satisfactory continuing control over the use of project equipment and facilities and will adequately maintain project equipment and facilities for the useful life of the project.
- (7) Any interest the project lead earns on LCTOP funds must be used only on approved LCTOP projects.
- (8) The project lead must notify the Department of any changes to the approved project with a Corrective Action Plan (CAP).
- (9) Under extraordinary circumstances, a project lead may terminate a project prior to completion. In the event the project lead terminates a project prior to completion, the project lead must (1) contact the Department in writing and follow-up with a phone call verifying receipt of such notice; (2) pursuant to

verification, submit a final report indicating the reason for the termination and demonstrating the expended funds were used on the intended purpose; (3) submit a request to reassign the funds to a new project within 180 days of termination.

- (10) Funds must be encumbered and liquidated within the time allowed.

### C. Reporting

- (1) The project lead must submit the following LCTOP reports:
- a. Semi-Annual Progress Reports by May 15<sup>th</sup> and November 15<sup>th</sup> each year.
  - b. A Final Report within six months of project completion.
  - c. The annual audit required under the Transportation Development Act (TDA), to verify receipt and appropriate expenditure of LCTOP funds. A copy of the audit report must be submitted to the Department within six months of the close of the year (December 31) each year in which LCTOP funds have been received or expended.
- (2) Other Reporting Requirements: ARB is developing funding guidelines that will include reporting requirements for all State agencies that receive appropriations from the Greenhouse Gas Reduction Fund. Caltrans and project sponsors will need to submit reporting information in accordance with ARB's funding guidelines, including reporting on greenhouse gas reductions and benefits to disadvantaged communities.

### D. Cost Principles

- (1) The project lead agrees to comply with Title 2 of the Code of Federal Regulations 225 (2 CFR 225), Cost Principles for State and Local Government, and 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
- (2) The project lead agrees, and will assure that its contractors and subcontractors will be obligated to agree, that:
- a. Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31, et seq., shall be used to determine the allow ability of individual project cost items and
  - b. Those parties shall comply with Federal administrative procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. Every sub-recipient receiving LCTOP funds as a contractor or sub-contractor shall comply with Federal administrative procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
- (3) Any project cost for which the project lead has received funds that are determined by subsequent audit to be unallowable under 2 CFR 225, 48 CFR, Chapter 1, Part 31 or 49 CFR, Part 18, are subject to repayment by the project lead to the State of California (State). All projects must reduce greenhouse gas emissions, as required under Public Resources Code section 75230, and any project that fails to reduce greenhouse gases shall also have its project costs submit to repayment by the project lead to the State. Should the project lead fail to reimburse moneys due to the State within thirty (30) days of demand, or within such other period as may be agreed in writing between the Parties hereto, the State is authorized to intercept and withhold future payments due the project lead from the State or any third-party source, including but not limited to, the State Treasurer and the State Controller.

**E. Record Retention**

- (1) The project lead agrees, and will assure that its contractors and subcontractors shall establish and maintain an accounting system and records that properly accumulate and segregate incurred project costs and matching funds by line item for the project. The accounting system of the project lead, its contractors and all subcontractors shall conform to Generally Accepted Accounting Principles (GAAP), and enable the determination of incurred costs at interim points of completion. All accounting records and other supporting papers of the project lead, its contractors and subcontractors connected with LCTOP funding shall be maintained for a minimum of three (3) years after the “Project Closeout” report or final Phase 2 report is submitted (per ARB Funding Guidelines, Vol. 3, page 3.A-16), and shall be held open to inspection, copying, and audit by representatives of the State and the California State Auditor. Copies thereof will be furnished by the project lead, its contractors, and subcontractors upon receipt of any request made by the State or its agents. In conducting an audit of the costs claimed, the State will rely to the maximum extent possible on any prior audit of the project lead pursuant to the provisions of federal and State law. In the absence of such an audit, any acceptable audit work performed by the project lead’s external and internal auditors may be relied upon and used by the State when planning and conducting additional audits.
- (2) For the purpose of determining compliance with Title 21, California Code of Regulations, Section 2500 et seq., when applicable, and other matters connected with the performance of the project lead’s contracts with third parties pursuant to Government Code § 8546.7, the project sponsor, its contractors and subcontractors and the State shall each maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of such contracts, including, but not limited to, the costs of administering those various contracts. All of the above referenced parties shall make such materials available at their respective offices at all reasonable times during the entire project period and for three (3) years from the date of final payment. The State, the California State Auditor, or any duly authorized representative of the State, shall each have access to any books, records, and documents that are pertinent to a project for audits, examinations, excerpts, and transactions, and the project lead shall furnish copies thereof if requested.
- (3) The project lead, its contractors and subcontractors will permit access to all records of employment, employment advertisements, employment application forms, and other pertinent data and records by the State Fair Employment Practices and Housing Commission, or any other agency of the State of California designated by the State, for the purpose of any investigation to ascertain compliance with this document.

**F. Special Situations**

The Department may perform an audit and/or request detailed project information of the project sponsor’s LCTOP funded projects at the Department’s discretion at any time prior to the completion of the LCTOP.

I certify all of these conditions will be met.

**BY:** \_\_\_\_\_

Alix Bockleman, Deputy Executive Director, Policy  
Metropolitan Transportation Commission

Date: February 24, 2016  
W.I.: 1515  
Referred by: PAC  
Revised:

ABSTRACT

Resolution No. 4223

This resolution provides the authorization for the execution of the certifications and assurances, and identifies the authorized agent, for the Low Carbon Transit Operations Program (LCTOP).

Further discussion of this action is contained in the Programming and Allocations Summary Sheet dated February 10, 2016.

Date: February 24, 2016  
W.I.: 1515  
Referred by: PAC

RE: Cap and Trade Low Carbon Transit Operations Program

METROPOLITAN TRANSPORTATION COMMISSION  
RESOLUTION NO. 4223

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area pursuant to Government Code Section 66500 et seq.; and

WHEREAS, Plan Bay Area (“Plan”), the region’s integrated long-range transportation and land use plan adopted by MTC, provides the planning foundation for transportation improvements and regional growth throughout the San Francisco Bay Area through 2040; and

WHEREAS, the Plan includes a \$3.1 billion reserve from future Cap and Trade funding; and

WHEREAS, the Plan identifies the expected uses of Cap and Trade funding as including but not limited to transit operating and capital rehabilitation/replacement, local streets and roads rehabilitation, goods movement, and transit-oriented affordable housing, consistent with the Plan's focused land use strategy; and

WHEREAS, the Plan states that Cap and Trade revenues will be allocated to specific programs through a transparent and inclusive regional public process; and

WHEREAS, the Plan calls for the process to ensure that at least 25 percent of the Cap and Trade revenues will be spent to benefit disadvantaged communities in the Bay Area; and

WHEREAS, Senate Bill 852 (Statutes 2014) establishes the Low Carbon Transit Operations Program (LCTOP) from the Greenhouse Gas Reduction Fund; and

WHEREAS, MTC is the recipient of the population-based funding in LCTOP funds pursuant to Public Utilities Code Section 99313 and 99314; and

WHEREAS, MTC has adopted Resolutions 4123 and 4130, a Programming Framework for the Cap and Trade funds and Transit Core Capacity Challenge Grant program; and

WHEREAS, MTC is an eligible project sponsor and may receive state funding from the LCTOP now or sometime in the future for transit projects; and

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, Senate Bill 862 (2014) named the Department of Transportation (Department) as the administrative agency for the LCTOP; and

WHEREAS, the Department has developed guidelines for the purpose of administering and distributing LCTOP funds to eligible project sponsors (local agencies); and

WHEREAS, MTC wishes to delegate authorization to execute these documents and any amendments thereto to the Executive Director or designee; now, therefore, be it

RESOLVED, that MTC agrees to comply with all conditions and requirements set forth in the Certification and Assurances and the Authorized Agent documents and applicable statutes, regulations and guidelines for all LCTOP funded transit projects; and, be it further

RESOLVED, that the Executive Director be authorized to execute all required documents of the LCTOP program and any Amendments thereto with the California Department of Transportation; and, be it further

RESOLVED, that the Executive Director shall forward a copy of this resolution, and such other information as may be required to Caltrans and to such other agencies as may be appropriate.

METROPOLITAN TRANSPORTATION COMMISSION

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Dave Cortese, Chair

The above resolution was entered into by the Metropolitan Transportation Commission at a regular meeting of the Commission held in Oakland, California, on February 24, 2016.

Date: February 24, 2016  
W.I.: 1515  
Referred by: PAC  
Revised:

ABSTRACT

Resolution No. 4222

This resolution adopts the allocation requests for the Cap and Trade Low Carbon Transit Operations Program for the San Francisco Bay Area.

This resolution includes the following attachments:

Attachment A – Cap and Trade Low Carbon Transit Operations Program – Population- based Funds Project List

Further discussion of this action is contained in the Programming and Allocations Summary Sheet dated February 10, 2016.

Date: February 24, 2016  
W.I.: 1515  
Referred by: PAC

RE: Cap and Trade Low Carbon Transit Operations Program

METROPOLITAN TRANSPORTATION COMMISSION  
RESOLUTION NO. 4222

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area pursuant to Government Code Section 66500 et seq.; and

WHEREAS, Plan Bay Area (“Plan”), the region’s integrated long-range transportation and land use plan adopted by MTC, provides the planning foundation for transportation improvements and regional growth throughout the San Francisco Bay Area through 2040; and

WHEREAS, the Plan includes a \$3.1 billion reserve from future Cap and Trade funding; and

WHEREAS, the Plan identifies the expected uses of Cap and Trade funding as including but not limited to transit operating and capital rehabilitation/replacement, local streets and roads rehabilitation, goods movement, and transit-oriented affordable housing, consistent with the Plan's focused land use strategy; and

WHEREAS, the Plan states that Cap and Trade revenues will be allocated to specific programs through a transparent and inclusive regional public process; and

WHEREAS, the Plan calls for the process to ensure that at least 25 percent of the Cap and Trade revenues will be spent to benefit disadvantaged communities in the Bay Area; and

WHEREAS, Senate Bill 852 (Statutes 2014) establishes the Low Carbon Transit Operations Program (LCTOP) from the Greenhouse Gas Reduction Fund; and

WHEREAS, MTC is the recipient of the population-based funding in LCTOP funds pursuant to Public Utilities Code Section 99313 and 99314; and

WHEREAS, MTC has adopted Resolutions 4123 and 4130, a Programming Framework for the Cap and Trade funds and Transit Core Capacity Challenge Grant program; and

WHEREAS, MTC adopted Resolution 4170 pertaining to allocation requests for the Cap and Trade Low Carbon Program for the San Francisco Bay Area for FY 2014-15; and

WHEREAS, staff has prepared a LCTOP population-based funding allocation request list, Attachment A, for submittal to Caltrans and based on the programming framework established in Resolutions 4123 and 4130, said attachment attached hereto and incorporated herein as though set forth at length; and

WHEREAS, MTC is an eligible project sponsor and may receive state funding from the LCTOP now or sometime in the future for transit projects; and

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, Senate Bill 862 (2014) named the Department of Transportation (Department) as the administrative agency for the LCTOP; and

WHEREAS, the Department has developed guidelines for the purpose of administering and distributing LCTOP funds to eligible project sponsors (local agencies); and

WHEREAS, MTC wishes to delegate authorization to execute these documents and any amendments thereto to the Executive Director or designee; and

WHEREAS, MTC wishes to implement the LCTOP program of projects attached hereto as Attachment A; now, therefore, be it

RESOLVED, that MTC adopts LCTOP program of projects, attached hereto as Attachment A, and finds it consistent with the RTP; and, be it further

RESOLVED, that this resolution succeeds MTC Resolution No. 4170, Revised; and, be it further

RESOLVED, that MTC hereby authorizes the submittal of the project nominations and allocation requests to the Department in FY 2015-16 LCTOP funds attached hereto as Attachment A; and, be it further

RESOLVED, that the Executive Director is authorized to make changes to Attachment A, including revisions to existing allocation requests up to \$1,000,000, and authorize new allocations up to \$1,000,000 to conform to sponsor requests, and Caltrans and State Controller's actions; and, be it further

RESOLVED, that the Executive Director shall forward a copy of this resolution, and such other information as may be required to Caltrans and to such other agencies as may be appropriate.

METROPOLITAN TRANSPORTATION COMMISSION

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Dave Cortese, Chair

The above resolution was entered into by the Metropolitan Transportation Commission at a regular meeting of the Commission held in Oakland, California, on February 24, 2016.

**FY 2015-16 Low Carbon Transit Operations Program Requests**  
 Based on State Controller's Office Letter dated 10/30/2015

Agency	Project(s)	FY 2014-15 LCTOP Population-Based Funding	Date
CCCTA	Clean Fuels - Electric Trolleys (\$307,569); Martinez Shuttle (\$184,922)	\$ 492,491	2/24/16
ECCTA	Continue Expanded Service Route 201	\$ 297,455	2/24/16
LAVTA	Purchase Two (2) Hybrid Replacement Buses	\$ 203,612	2/24/16
NCPTA	ZEBs for Vine Commuter Service to SMART	\$ 140,397	2/24/16
SamTrans	Purchase of an Electric Bus	\$ 279,772	2/24/16
City of Union City	Solar Panels for Union Landing Transit Center	\$ 71,301	2/24/16
VTA	Battery Electric Zero Emission Bus and Infrastructure Project	\$ 985,763	2/24/16
WCCTA	Continued Expanded Service on Route 11	\$ 65,666	2/24/16
GGBHTD <sup>1</sup>	Purchase Three (3) 40-Foot Diesel-Electric Hybrid Buses	\$ 163,859	2/24/16
Marin Transit <sup>1</sup>	MCTD 2016 Transit Expansion	\$ 95,863	2/24/16
City of Fairfield <sup>2</sup>	Local Bus Fleet Replacement	\$ 144,227	2/24/16
Solano County Transit <sup>2</sup>	Purchase of Zero Emission Bus for New and Expanded Service	\$ 278,678	2/24/16
City of Petaluma <sup>3</sup>	Petaluma Transit: Weekday Afternoon Service Enhancements	\$ 59,618	2/24/16
City of Santa Rosa <sup>3</sup>	Reimagine CityBus Marketing & Implementation	\$ 419,172	2/24/16
Sonoma County Transit <sup>3</sup>	Electric Bus Purchase for Route 24 Service Expansion	\$ 18,112	2/24/16
MTC	Clipper Fare Payment System	\$ 3,559,290	2/24/16
<b>TOTAL</b>		<b>\$ 7,275,276</b>	

\* MTC approval conditioned on local support documentation submitted to Caltrans

1. Marin County received \$259,722, and distributed between Marin Transit and GGBHTD as noted.
2. Solano County received \$422,905, and distributed between City of Fairfield and Solano County Transit as noted.
3. Sonoma County received \$496,902, and distributed between City of Petaluma, City of Santa Rosa, and Sonoma County Transit as noted. Share distributed to City of Santa Rosa includes repayment of \$236,713 FY2014-15 share that was reassigned to Sonoma County, as noted in MTC Res. No. 4170, Revised.