



## **TRANSIT SYSTEM MAINTENANCE AND RENOVATION**

### **VEHICLES—Muni and Undesignated**

Pending Board Approval: November 27, 2018

Prepared for the San Francisco County Transportation Authority

By San Francisco Municipal Transportation Agency



**SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY**

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## Eligibility

Eligibility as identified in the voter approved Prop K Expenditure Plan is as follows:

“Programmatic improvements for upgrade, rehabilitation and replacement of transit vehicles, spare parts and on-board equipment. Includes limited incremental operating funds for F-line historic streetcar operations. The first \$506.3M is Priority 1 and the remainder is Priority 2. Projects include:

- Rail car, trolley coach and motor coach renovation and replacement; retrofit of diesel coaches to reduce emissions. Includes project development and capital costs. Sponsoring Agencies: Muni, BART, PCJPB. Funding for BART rail car renovation and replacement shall be eligible for funding under this subcategory if the Authority finds that the costs of rail car renovation and replacement are shared equitably among the counties BART serves. The first \$486M in Prop K is Priority 1, and the remainder is Priority 2. Total Funding: \$3,476.7 M; Prop K: \$566 M. Of the \$565.7 M in Prop K funds, the following minimum amounts will be available for MUNI (\$450.8M), BART (\$11.5M), and PCJPB (\$23M).”

BART stands for the Bay Area Rapid Transit District, MUNI stands for San Francisco Municipal Railway, PCJPB stands for Peninsula Corridor Joint Powers Board (Caltrain).

No funds had been programmed from the Vehicles–Undesignated category as of adoption of the 2014 Strategic Plan, hence there was no need for a 5YPP. However, shortly after its adoption the 2014 Strategic Plan was amended to program \$66.4 million in Vehicles-Undesignated funds to support replacement of SFMTA’s light rail vehicle fleet. The 2019 Vehicles–Undesignated 5YPP continues to support replacement of the light rail fleet, and provides greater emphasis on vehicle rehabilitation.

## Prioritization Criteria

One of the key required elements of the 5YPPs is a transparent process for how projects get selected. Prop K requires at a minimum that each category include prioritization criteria that address project readiness, community support, and relative level of need or urgency. For the 2014 5YPP update, the Citizens Advisory Committee requested that the Transportation Authority and project sponsors develop a user-friendly, transparent scoring table that could apply to all 5YPPs, and that the scoring prioritize safety and community input highly. We have not changed the prioritization scoring for the 2019 5YPP.

Table 3 shows the Prioritization Criteria and Scoring Table with the project proposed for the 2019 Vehicles–Muni 5YPP. Each project can receive a maximum of 20 points, with up to 10 points allocated program-wide criteria and up to 10 points allocated for category-specific criteria.

The Expenditure Plan also requires consideration of geographic equity in terms of project distribution that takes into account the various needs of San Francisco’s neighborhoods. The 2014 5YPP supported replacement of nearly all of Muni’s rubber-tired fleet (motor coaches, trolley coaches and paratransit vans), as well as a major outlay for replacement of SFMTA’s light rail vehicle fleet. The 2019 5YPP continues to support replacement of the light rail fleet, completes the replacement of the rubber tire fleet, and provides funding for vehicle rehabilitation.

## Stretching Your Prop K Sales Tax Dollars Farther

Leveraging Prop K funds against non-Prop K fund sources (e.g., federal, state, other local funds) is necessary to fully fund the Expenditure Plan projects and programs. For the Vehicles category, the Prop K Expenditure Plan assumes that every \$1 of sales tax revenue spent would leverage about \$5 in non-Prop K funds. The table below compares Prop K Expenditure Plan assumptions with proposed leveraging in the 2019 5-year project lists.

**Table 1. Prop K Leveraging<sup>1</sup>**

Category	Expected Leveraging (Non-Prop K Funds)	Proposed Leveraging (Non-Prop K Funds)
Vehicles–Muni and Undesignated	84%	81%

<sup>1</sup> This table compares the expected leveraging assumed in the Expenditure Plan with the proposed leveraging assumed in the 5-Year Project List.

Leveraging for the 2019 Vehicles–Muni 5YPP will be somewhat greater than the 81% shown in Table 1, as it does not include the expected leveraging of nearly \$20 million from a yet to be identified project in the 2019 5YPP. SFMTA’s vehicle procurement and

rehabilitation projects typically leverage Prop K funds with other funds totaling about 80% of the project cost.

## Performance Measures

Prop K requires the establishment of performance measures for each programmatic category in the Expenditure Plan. The intent is to demonstrate the system performance benefits of sales tax projects (e.g. reduced transit travel time), to ensure funds are being used cost effectively, and to inform allocation of Prop K funds and programming and prioritization of other funds by the Transportation Authority (e.g. Transportation Fund for Clean Air, Prop AA Vehicle Registration Fee funds).

The performance measures that will be applied to implemented vehicles projects are:

- Maintain average fleet age at less than 2/3 of the Federal Transit Administration (FTA) standards
- Increase mean distance between failures (MDBF)

The goal in programming vehicle procurement projects is to ensure that they don't exceed their useful life in order to minimize vehicle failures and the cost of operating vehicles that are beyond their useful lives. The standards set by the FTA define "useful life" as 12 years for motor coaches, 25 years for light rail vehicles, and 18 years for Trolley Coaches. The goal in programming vehicle rehabilitation projects is to reduce the incidence of mechanical failures, thus increasing reliability, improving the customer experience, and reducing costs associated with operational disruptions and unscheduled repairs.

**Table 2. Project Delivery Snapshot  
Vehicles - Muni Category (EP 17M)**

5-Year Prioritization Program (5YPP) Period *	Programmed (Available for Allocation)	Allocated (as of July 2018)	% Allocated
2005 5YPP (FY 2004/05-2008/09)	\$ 55,497,444	\$ 39,178,663	71%
2009 5YPP (FY 2009/10-2013/14)	\$ 53,791,561	\$ 33,886,872	63%
2014 5YPP (FYs 2014/15 - 2018/19) as of 7/24/2018	\$ 316,693,796	\$ 246,298,632	78%
<b>Total</b>		\$ 319,364,167	

\*Unallocated funds are carried forward for programming in the following 5YPP period.

Table below shows percent complete as reported by project sponsors in July 2018.

**Completed Projects/Project Phases** (sorted by allocation year, then sponsor, then project name)

Sponsor	Fiscal Year of Allocation	Project Name	Phase(s) Funded	Total Allocated (as of July 2018)	% Complete
SFMTA	2004/05	2005 5YPP Development	Planning	\$ 4,911	100%
SFMTA	2004/05	Burke Avenue Overhead Lines and Central Warehouse Facility	Construction	\$ 1,185,377	100%
SFMTA	2004/05	56 40-ft Hybrid Electric Buses	Construction	\$ 13,852,358	100%
SFMTA	2004/05	30 30-ft Hybrid Electric Buses	Construction	\$ 9,193,685	100%
SFMTA	2004/05	45 Gillig Motor Coaches	Construction	\$ 3,735,000	100%
SFMTA	2005/06	Paratransit Vans and Debit Cards	Construction	\$ 491,284	100%
SFMTA	2005/06	Trolley Coach Rebuild (60 Articulated)	Design	\$ 500,000	100%
SFMTA	2006/07	Automatic Passenger Counter APC Equipment	Construction	\$ 609,400	100%
SFMTA	2006/07	Purchase & Modification - 45 Gillig Buses	Construction	\$ 605,155	100%
SFMTA	2006/07	Trolley Coach Rebuild	Construction	\$ 841,140	100%
SFMTA	2006/07	Rear Wheel Safety Guards	Construction	\$ 931,122	100%
SFMTA	2007/08	Paratransit Vehicle Procurement	Construction	\$ 511,786	100%
SFMTA	2007/08	Rehabilitation of Historic Streetcars	Construction	\$ 2,482,830	100%
SFMTA	2008/09	Restoration of 8 Light Rail Vehicles	Construction	\$ 2,600,000	100%
SFMTA	2008/09	Vehicle Driver Risk Management System	Construction	\$ 1,634,615	100%
SFMTA	2009/10	Re-power Standard Motor Coaches	Construction	\$ 129,356	100%
SFMTA	2009/10	Bus and Trolley Targeted Systems Overhaul Program	Construction	\$ 6,776,911	100%
SFMTA	2011/12	Paratransit Vans Procurement	Design	\$ 24,160	100%
SFMTA	2011/12	Paratransit Vans Procurement	Construction	\$ 440,201	100%

**Table 2. Project Delivery Snapshot  
Vehicles - Muni Category (EP 17M)**

Sponsor	Fiscal Year of Allocation	Project Name	Phase(s) Funded	Total Allocated (as of July 2018)	% Complete
SFMTA	2012/13	59 40-Foot New Flyer Hybrid Motor Coaches	Construction	\$ 12,810,580	100%
SFMTA	2013/14	Replace 50 40-foot Neoplan Motor Coaches	Construction	\$ 12,897,381	100%
SFMTA	2013/14	Replace 35 Paratransit Vans	Design	\$ 50,000	100%
SFMTA	2013/14	Replace 35 Paratransit Vans	Construction	\$ 528,124	100%
SFMTA	2014/15	Replace 60 New Flyer 60-Foot Trolley Coaches	Construction	\$ 20,831,776	100%
SFMTA	2015/16	61 60-Foot Low Floor Diesel Hybrid Coaches (26 Replace and 35 Expand)	Construction	\$ 12,352,094	100%
SFMTA	2015/16	48 40-ft and 50 60-ft Low Floor Diesel Hybrid Coaches	Construction	\$ 33,405,243	100%
SFMTA	2015/16	85 40-ft and 63 60-ft Low-Floor Hybrid Diesel Motor Coaches	Construction	\$ 47,641,538	100%
SFMTA	2015/16	Replace 14 60-Foot Trolley Coaches	Construction	\$ 5,000,000	100%
SFMTA	2016/17	Replace 27 Paratransit Vans	Design	\$ 31,388	100%
SFMTA	2016/17	Replace 27 Paratransit Vans	Construction	\$ 686,827	100%
SFMTA	2016/17	67 40-foot and 50 60-foot Low Floor Hybrid Diesel Motor Coaches	Construction	\$ 12,550,152	100%
SFMTA	2016/17	67 40-foot and 50 60-foot Low Floor Hybrid Diesel Motor Coaches - Reserve	Construction	\$ 16,850,587	100%
SFMTA	2017/18	Replace 19 60-ft Trolley Coaches	Construction	\$ 6,083,580	100%

**Projects/Project Phases Underway** (sorted by allocation year, then sponsor, then project name)

Sponsor	Fiscal Year of Allocation	Project Name	Phase(s) Funded	Total Allocated (as of July 2018)	% Complete
SFMTA	2013/14	Replace 50 40-foot Neoplan Motor Coaches	Warranty	\$ 230,159	80%
SFMTA	2014/15	Light Rail Vehicle Procurement	Construction	\$ 60,116,311	28%
SFMTA	2015/16	85 40-ft and 63 60-ft Low-Floor Hybrid Diesel Motor Coaches	Warranty	\$ 227,465	60%
SFMTA	2016/17	67 40-foot and 50 60-foot Low Floor Hybrid Diesel Motor Coaches	Warranty	\$ 696,096	40%
SFMTA	2017/18	Replace 33 60-ft Trolley Coaches	Warranty	\$ 554,000	60%
SFMTA	2017/18	Replace 100 40-ft Trolley Coaches	Construction	\$ 28,245,153	10%
SFMTA	2017/18	Replace 30 30-foot Hybrid Diesel Motor Coaches	Design	\$ 356,422	5%
SFMTA	2017/18	Replace 100 40-foot Trolley Coaches	Warranty	\$ 670,000	0%

Table 3 - Prioritization Criteria and Scoring Table  
Vehicles-Muni and Undesignated (EPs-17M, 17U)

	PROP K PROGRAM-WIDE CRITERIA			CATEGORY SPECIFIC CRITERIA			Total
	Project Readiness	Community Support	Time Sensitive Urgency	Safety	Need	Increases Capacity	
<b>Total Possible Score</b>	4	3	3	4	3	3	20
Transit Vehicle Replacement or Rehabilitation - Placeholder	This is a placeholder. SFMTA will provide scores once a specific project has been identified.						
Rehabilitate Historic & Milan Streetcars	3	1	0	0	3	0	7
Light Rail Vehicle (LRV) Procurement (151 Replacement + 68 Expansion)	4	2	2	3	3	2	16

**Prioritization Criteria Definitions:**

**Project Readiness:** Project likely to need funding in fiscal year proposed. Factors to be considered include adequacy of scope, schedule, budget and funding plan relative to current project status (e.g. expect more detail and certainty for a project about to enter construction than design); whether prior project phases are completed or expected to be completed before beginning the next phase; and whether litigation, community opposition or other factors may significantly delay project.

**Community Support:** Project has clear and diverse community support and/or was it identified through a community-based planning process. An example of a community-based plan is a neighborhood transportation plan, but not a countywide plan or agency capital improvement program. Three points for a project in an adopted community based plan with evidence of diverse community support. Two points for a project with evidence of support from both neighborhood stakeholders and groups and citywide groups. One point for a project with evidence of support from either neighborhood stakeholders and groups or citywide groups.

**Time Sensitive Urgency:** Project needs to proceed in proposed timeframe to enable construction coordination with another project (e.g. minimize costs and construction impacts), to support another funded or proposed project (e.g. new signal controllers need to be installed to support TEP implementation) or to meet timely use of funds deadlines associated with matching funds.

**Safety:** Project improves safety for passengers, operators and/or employees. Projects that address a documented safety issue should score more highly.

**Need:** Project replaces asset at at end of useful life.

**Increases Capacity:** Project increases passenger capacity or results in mid-life overhaul (e.g. replaces smaller vehicle with larger vehicle, reduces mean failure



**2019 Prop K 5-Year Prioritization Program - Program of Projects  
Vehicles - Muni Category (EP 17M)  
Programming**

Agency	Project Name	Phase	Status	Fiscal Year					Total
				2019/20	2020/21	2021/22	2022/23	2023/24	
SFMTA	Transit Vehicle Replacement or Rehabilitation - Placeholder	CON	Planned	\$4,491,196					\$4,491,196
SFMTA	Rehabilitate Historic & Milan Streetcars	CON	Planned		\$3,304,749				\$3,304,749
SFMTA	Light Rail Vehicle (LRV) Procurement (151 Replacement + 68 Expansion)	PROC	Planned	\$17,183,425					\$17,183,425
SFMTA	Light Rail Vehicle (LRV) Procurement (151 Replacement + 68 Expansion) - Additional	PROC	Planned	\$34,941,598					\$34,941,598
<b>Funds Requested in 2019 5YPP</b>				\$56,616,219	\$3,304,749	\$0	\$0	\$0	\$59,920,968
<b>Funds Programmed in 2019 Strategic Plan Baseline</b>				\$31,662,652	\$0	\$0	\$0	\$0	\$31,662,652
<b>Cumulative Remaining Programming Capacity</b>				<b>(\$24,953,567)</b>	<b>(\$28,258,316)</b>	<b>(\$28,258,316)</b>	<b>(\$28,258,316)</b>	<b>(\$28,258,316)</b>	<b>(\$28,258,316)</b>







**San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form**

<b>Prop K Project Information Form</b>	
<b>Project Name:</b>	Transit Vehicle Replacement or Rehabilitation - Placeholder
<b>Implementing Agency:</b>	San Francisco Municipal Transportation Agency
<b>Prop K Expenditure Plan Information</b>	
<b>Category:</b>	A. Transit
<b>Subcategory:</b>	iii. System Maintenance and Renovation (transit)
<b>EP Line (Primary):</b>	17M-Vehicles - MUNI
<b>Other EP Line Number/s:</b>	
<b>Fiscal Year of Allocation:</b>	2019/20
<b>Project Information</b>	
<b>Project Location:</b>	Citywide
<b>Supervisorial District(s):</b>	TBD
<b>Project Manager:</b>	TBD
<b>Phone Number:</b>	
<b>Email:</b>	
<b>Brief Project Description for MyStreetSF (80 words max):</b>	Placeholder for project to replace or rehabilitate Muni transit vehicles.
<b>Detailed Scope (may attach Word document):</b> Please describe the project goals, scope, benefits and how the project was prioritized. Also, describe any coordination with other projects (e.g. paving, MuniForward, Vision Zero).	This is a placeholder for a transit vehicle or rehabilitation project to be determined.
<b>Prior Community Engagement/Support (may attach Word document):</b> Please reference any community outreach that has occurred and whether the project is included in any plans (e.g. neighborhood transportation plan, corridor improvement study, station area plans).	N/A
<b>Partner Agencies:</b> Please list partner agencies and identify a staff contact at each agency.	
<b>Type of Environmental Clearance Required:</b>	TBD
<b>Attachments:</b> Please attach maps, drawings, photos of current conditions, etc. to support understanding of the project.	No

Project Delivery Milestones	Status	Work	Start Date		End Date	
	% Complete	In-house - Contracted - Both	Quarter	Fiscal Year	Quarter	Fiscal Year
Planning/Conceptual Engineering						
Environmental Studies (PA&ED)						
Right of Way						
Design Engineering (PS&E)						
Advertise Construction						
Start Construction (i.e. Award Contract)						
Operations (i.e. paratransit)						
Open for Use						
Project Completion (means last eligible expenditure)						

**Comments/Concerns**  
 This is a placeholder. Schedule will be determined when a project is identified.



San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form

<b>Project Name:</b>	Transit Vehicle Replacement or Rehabilitation - Placeholder
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Project Cost Estimate	Phase	Cost	Funding Source	
			Prop K	Other
	Planning/Conceptual Engineering	\$ -	\$ -	\$ -
	Environmental Studies (PA&ED)	\$ -	\$ -	\$ -
	Right of Way	\$ -	\$ -	\$ -
	Design Engineering (PS&E)	\$ -	\$ -	\$ -
	Construction	\$ 4,491,196	\$ 4,491,196	
	Operations (i.e. paratransit)	\$ -	\$ -	\$ -
	<b>Total Project Cost</b>	\$ 4,491,196	\$ 4,491,196	TBD
	<b>Percent of Total</b>		<b>100%</b>	

Funding Plan - All Phases		Cash Flow for Prop K Only (i.e. Fiscal Year of Reimbursement)									
Fund Source	Prop K Expenditure Line	Phase	Fund Source Status	Fiscal Year of Allocation (Programming Year)	Total Funding	Previous	2019/20	2020/21	2021/22	2022/23	2023/24
Prop K	17M-Vehicles - MUNI	Construction	Programmed	2019/20	\$ 4,491,196		\$ 2,245,598	\$ 2,245,598			
TBD											
				<b>Total By Fiscal Year</b>	<b>\$ 4,491,196</b>	<b>\$ -</b>	<b>\$ 2,245,598</b>	<b>\$ 2,245,598</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**Comments**  
 A full funding plan to leverage Prop K funds with funds from other sources will be required for allocation of Prop K funds. Appropriate leveraging will be expected when an allocation request is submitted.

**San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form**

Prop K Project Information Form	
<b>Project Name:</b>	Rehabilitate Historic & Milan Streetcars
<b>Implementing Agency:</b>	San Francisco Municipal Transportation Agency
Prop K Expenditure Plan Information	
<b>Category:</b>	A. Transit
<b>Subcategory:</b>	iii. System Maintenance and Renovation (transit)
<b>EP Line (Primary):</b>	17M-Vehicles - MUNI
<b>Other EP Line Number/s:</b>	12-Purchase/Rehab Historic Streetcars
<b>Fiscal Year of Allocation:</b>	2019/20, 2021/22
Project Information	
<b>Project Location:</b>	F-line streetcar route
<b>Supervisory District(s):</b>	District 03, District 05, District 06
<b>Project Manager:</b>	Aaron Posner
<b>Phone Number:</b>	415-646-2475
<b>Email:</b>	<a href="mailto:Aaron.Posner@sfmta.com">Aaron.Posner@sfmta.com</a>
<b>Brief Project Description for MyStreetSF (80 words max):</b>	Rehabilitate up to 11 Milan and 7 Vintage Streetcars to like-new condition, including upgrading electrical and mechanical systems, performing body work, and ensuring systems meet CPUC and ADA requirements. Due to their historic nature, these vehicles are not replaced on a regular schedule, making a program of regular rehabilitation critical to the long-term operation of the fleet.
<b>Detailed Scope (may attach Word document):</b> Please describe the project goals, scope, benefits and how the project was prioritized. Also, describe any coordination with other projects (e.g. paving, MuniForward, Vision Zero).	The historic streetcar fleet is a collection of electric rail vehicles from the U.S. and around the world. This project will rehabilitate up to 18 Milan and Vintage Streetcars (which the SFMTA already owns) to like-new condition, including upgrading electrical and mechanical systems, performing body work, and ensuring systems meet CPUC and ADA requirements. The historic streetcar fleet is a collection of electric rail vehicles from the U.S. and around the world. Due to their historic nature, these vehicles are not replaced on a regular schedule, making a program of regular rehabilitation critical to the long-term operation of the fleet.
<b>Prior Community Engagement/Support (may attach Word document):</b> Please reference any community outreach that has occurred and whether the project is included in any plans (e.g. neighborhood transportation plan, corridor improvement study, station area plans).	The Market Street Railway advocacy organization supports service improvements and expansion for San Francisco's historic streetcar and cable car systems.
<b>Partner Agencies:</b> Please list partner agencies and identify a staff contact at each agency.	
<b>Type of Environmental Clearance Required:</b>	Categorically Exempt
<b>Attachments:</b> Please attach maps, drawings, photos of current conditions, etc. to support understanding of the project.	No

**San Francisco County Transportation Authority  
Proposition K Sales Tax Program Project Information Form**



Project Delivery Milestones Phase	Status % Complete	Work In-house - Contracted - Both In-house and Contracted	Start Date		End Date	
			Quarter	Fiscal Year	Quarter	Fiscal Year
Planning/Conceptual Engineering	85%	In-house and Contracted	Q2-Oct-Nov-Dec	2016/17	Q4-Apr-May-Jun	2017/18
Environmental Studies (PA&ED)						
Right of Way						
Design Engineering (PS&E)	0%	Contracted	Q3-Jan-Feb-Mar	2018/19	Q1-Jul-Aug-Sep	2021/22
Advertise Construction	0%	In-house	Q2-Oct-Nov-Dec	2021/22		
Start Construction (i.e. Award Contract)	0%	Contracted	Q3-Jan-Feb-Mar	2021/22		
Operations (i.e. paratransit)						
Open for Use	0%	Contracted			Q1-Jul-Aug-Sep	2028/29
Project Completion (means last eligible expenditure)						

**Comments/Concerns**



Milan, Italy (Original 1928 livery)  
**No.1811** • Built 1928 • Operational



Milan, Italy (1930s 1970s)  
**No.1818** • Built 1928 • Operational



Milan, Italy (1970s present)  
**No.1895** • Built 1928 • Operational





San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form

**Project Name:** Rehabilitate Historic & Milan Streetscars

Phase	Cost	Funding Source	
		Prop K	Other
Planning/Conceptual Engineering	709,365	\$ 709,365	-
Environmental Studies (PA&ED)	-	-	-
Right of Way	-	-	-
Design Engineering (PS&E)	1,874,046	\$ 374,809	\$ 1,499,237
Construction	39,677,564	\$ 3,850,735	\$ 35,826,829
Operations (i.e. paratransit)	960,160	-	\$ 960,160
<b>Total Project Cost</b>	<b>43,221,135</b>	<b>\$ 4,225,544</b>	<b>\$ 38,995,591</b>
<b>Percent of Total</b>		<b>10%</b>	<b>90%</b>

Fund Source	Prop K Expenditure Line	Phase	Fund Source Status	Fiscal Year of Allocation (Programming Year)	Total Funding	Cash Flow for Prop K Only (i.e. Fiscal Year of Reimbursement)											
						Previous	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28		
FTA-5309		Planning/Conceptual Engineering	Allocated	Previous	\$ 400,000	\$ 400,000	-	-	-	-	-	-	-	-	-	-	-
MITC-AB664		Planning/Conceptual Engineering	Allocated	Previous	\$ 100,000	\$ 100,000	-	-	-	-	-	-	-	-	-	-	-
Prop B		Planning/Conceptual Engineering	Planned	2019/20	\$ 209,365	-	\$ 209,365	-	-	-	-	-	-	-	-	-	-
Prop K	12-Purchase/Rehab Historic Streetscars	Design Engineering (PS&E)	Planned	2019/20	\$ 374,809	-	\$ 187,405	\$ 187,405	-	-	-	-	-	-	-	-	-
Prop B		Design Engineering (PS&E)	Planned	2019/20	\$ 1,499,237	-	-	\$ 749,619	\$ 749,619	-	-	-	-	-	-	-	-
Prop B		Construction	Planned	2019/20	\$ 2,505,811	-	-	-	-	-	-	-	-	-	-	-	\$ 2,505,811
Prop K	12-Purchase/Rehab Historic Streetscars	Construction	Planned	2021/22	\$ 545,986	-	-	-	\$ 272,993	\$ 272,993	-	-	-	-	-	-	-
Prop K	17M-Vehicles - MUNI	Construction	Planned	2021/22	\$ 3,304,749	-	-	-	\$ 304,749	\$ 304,749	\$ 900,000	\$ 900,000	\$ 600,000	\$ 300,000	\$ 300,000	-	-
TCP (Federal Transit Administration formula funds)		Construction	Planned	2022/23	\$ 34,281,178	-	-	-	-	-	\$ 10,284,353	\$ 10,284,353	\$ 6,856,236	\$ 3,428,118	\$ 3,428,118	-	-
<b>Total By Fiscal Year</b>					<b>\$ 43,221,135</b>	<b>\$ 500,000</b>	<b>\$ 396,770</b>	<b>\$ 937,023</b>	<b>\$ 1,327,361</b>	<b>\$ 11,457,346</b>	<b>\$ 11,184,353</b>	<b>\$ 7,456,236</b>	<b>\$ 3,728,118</b>	<b>\$ 3,728,118</b>	<b>\$ 3,728,118</b>	<b>\$ 2,505,811</b>	<b>\$ 2,505,811</b>

**Comments:**

Prop B may be used for multiple phases.

**San Francisco County Transportation Authority  
Proposition K Sales Tax Program Project Information Form**



<b>Prop K Project Information Form</b>			
<b>Project Name:</b>	Light Rail Vehicle (LRV) Procurement (151 Replacement + 68 Expansion)		
<b>Implementing Agency:</b>	San Francisco Municipal Transportation Agency		
<b>Prop K Expenditure Plan Information</b>			
<b>Category:</b>	A. Transit		
<b>Subcategory:</b>	iii. System Maintenance and Renovation (transit)		
<b>EP Line (Primary):</b>	17M-Vehicles - MUNI		
<b>Other EP Line Number/s:</b>	15-Purchase Additional LRV's, 17U- Vehicles-Undesignated		
<b>Fiscal Year of Allocation:</b>	2019/20		
<b>Project Information</b>			
<b>Project Location:</b>	Citywide		
<b>Supervisory District(s):</b>	Citywide		
<b>Project Manager:</b>	Janet Gallegos		
<b>Phone Number:</b>	415-579-9791		
<b>Email:</b>	<a href="mailto:janet.gallegos@sfmta.com">janet.gallegos@sfmta.com</a>		
<b>Brief Project Description for MyStreetSF (80 words max):</b>	Purchase 151 new Light Rail Vehicles (LRVs) to replace outdated Breda vehicles that have reached the end of their useful life and purchase an additional 68 LRVs to expand Muni's light rail fleet, 24 of which will accommodate the needs of the Central Subway.		
<b>Detailed Scope (may attach Word document):</b> Please describe the project goals, scope, benefits and how the project was prioritized. Also, describe any coordination with other projects (e.g. paving, MuniForward, Vision Zero).	<p><u>Scope:</u> Purchase 151 new Light Rail Vehicles (LRVs) to replace outdated Breda vehicles that have reached the end of their useful life. Purchase an additional 68 LRVs to expand the Muni fleet, 24 of which will meet Muni's light rail service needs on opening of the Central Subway. It also includes 4 LRVs purchased by the Warriors to serve Mission Bay. The new LRVs will be manufactured by Siemens in their Sacramento facility, and will be equipped with state-of-the-art equipment and safety features. These new vehicles will increase the comfort, safety and reliability of the Muni Metro system.</p> <p><u>Issue Summary:</u> SFMTA has been working with the Metropolitan Transportation Commission (MTC) and the Transportation Authority to explore the possibility of accelerating procurement of 151 replacement light rail vehicles, as well as filling a funding gap that exists whether the procurement is accelerated or not. The three agencies have developed a preliminary funding plan but are still evaluating various aspects including the overall cost-benefit analysis. The revised timeline could accelerate delivery of the first vehicles by as many as 18 months and shorten the overall delivery window from six and a half years to only three. The chief advantages are providing more reliable service sooner to the public and reducing operations and maintenance costs by retiring older vehicles that cost more to maintain in a good condition. Tradeoffs include financing costs needed to ensure cash is on hand to meet the proposed accelerated schedule and incurring costs due to replacing LRVs prior to the end of the Federal Transit Administration (FTA)-established useful life. These costs reduce funds that would be available for other projects, including future vehicle procurements.</p> <p>See comment box under the Funding Plan for conditions of programming and allocations.</p>		
<b>Prior Community Engagement/Support (may attach Word document):</b> Please reference any community outreach that has occurred and whether the project is included in any plans (e.g. neighborhood transportation plan, corridor improvement study, station area plans).			
<b>Partner Agencies:</b> Please list partner agencies and identify a staff contact at each agency.			
<b>Type of Environmental Clearance Required:</b>			
<b>Attachments:</b> Please attach maps, drawings, photos of current conditions, etc. to support understanding of the project.	<table border="1"> <tr> <td style="text-align: center;">Yes</td> <td>                     1) Delivery Schedule Comparison – Standard vs. Accelerated                      2) Preliminary Funding Plan Comparison – Standard vs. Accelerated                 </td> </tr> </table>	Yes	1) Delivery Schedule Comparison – Standard vs. Accelerated 2) Preliminary Funding Plan Comparison – Standard vs. Accelerated
Yes	1) Delivery Schedule Comparison – Standard vs. Accelerated 2) Preliminary Funding Plan Comparison – Standard vs. Accelerated		

**San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form**

Project Delivery Milestones Phase	Status	Work	Start Date		End Date	
	% Complete	In-house - Contracted - Both	Quarter	Fiscal Year	Quarter	Fiscal Year
Planning/Conceptual Engineering			Q1-Jul-Aug-Sep	2018/19	Q4-Apr-May-Jun	2022/23
Environmental Studies (PA&ED)						
Right of Way						
Design Engineering (PS&E)						
Advertise Construction						
Start Construction (i.e. Award Contract)			Q1-Jul-Aug-Sep	2014/15		
Operations (i.e. paratransit)						
Open for Use					Q1-Jul-Aug-Sep	2028/29
Project Completion (means last eligible expenditure)					Q1-Jul-Aug-Sep	2029/30

**Comments/Concerns**



San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form

Project Name: Light Rail Vehicle (LRV) Procurement (151 Replacement + 68 Expansion)

Project Cost Estimate Phase	Cost	Funding Source	
		Prop K	Other
Planning/Conceptual Engineering	\$ -	\$ -	\$ -
Environmental Studies (PA&EID)	\$ -	\$ -	\$ -
Right of Way	\$ -	\$ -	\$ -
Design Engineering (PS&E)	\$ -	\$ -	\$ -
Construction	\$ 1,071,700,991	\$ 193,920,778	\$ 877,780,213
Operations (i.e. paratransit)	\$ -	\$ -	\$ -
<b>Total Project Cost</b>	<b>\$ 1,071,700,991</b>	<b>\$ 193,920,778</b>	<b>\$ 877,780,213</b>
<b>Percent of Total</b>		<b>18%</b>	<b>82%</b>

Fund Source	Prop K Expenditure Line	Phase	Fund Source Status	Fiscal Year of Allocation (Programming Year)	Cash Flow for Prop K Only (i.e. Fiscal Year of Reimbursement)														
					Total Funding	Previous	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Cash Flow Total			
Prop K	15-Purchase Additional LRV's	Construction	Allocated	Previous	\$ 4,592,490	\$ 4,592,490													\$ 4,592,490
Prop K	17M-Vehicles - MUNI	Construction	Allocated	Previous	\$ 60,116,311		\$ 32,374,181	\$ 8,528,137											\$ 60,116,311
Prop K	17U-Vehicles - MUNI	Construction	Allocated	Previous	\$ 66,444,343			\$ 743,520	\$ 40,408,394	\$ 25,292,429									\$ 66,444,343
FTA-5307		Construction	Allocated	Previous	\$ 10,227,539	\$ 10,227,539													\$ 10,227,539
Revenue Bonds		Construction	Allocated	Previous	\$ 145,050,650														\$ 145,050,650
Prop K	17M-Vehicles - MUNI	Construction	Planned	2019/20	\$ 17,183,425				\$ 17,183,425										\$ 17,183,425
Prop K	17U-Vehicles - MUNI	Construction	Planned	2019/20	\$ 10,545,950				\$ 10,545,950										\$ 10,545,950
TBD (e.g. new revenues)		Construction	Planned	2021/22	\$ 15,466,583				\$ 8,197,748	\$ 7,268,835									\$ 15,466,583
Federal Transit Formula Funds		Construction	Planned	2019/20	\$ 13,220,000				\$ 13,220,000										\$ 13,220,000
Federal Transit Formula Funds		Construction	Planned	2020/21	\$ 150,490,865				\$ 150,490,865										\$ 150,490,865
Prop K	15-Purchase Additional LRV's	Construction	Planned	2019/20	\$ 96,661				\$ 96,661										\$ 96,661
Prop K	17M-Vehicles - MUNI	Construction	Planned	2019/20	\$ 34,941,598				\$ 34,941,598										\$ 34,941,598
Federal Transit Formula Funds		Construction	Planned	2021/22	\$ 180,146,414				\$ 180,146,414										\$ 180,146,414
Developer Fees		Construction	Planned	2019/20	\$ 22,363,417			\$ 18,364,113	\$ 3,999,304										\$ 22,363,417
Central Subway Contribution		Construction	Allocated	Previous	\$ 16,800,000														\$ 16,800,000
TIRGP		Construction	Allocated	Previous	\$ 113,140,000														\$ 113,140,000
Operating		Construction	Allocated	Previous	\$ 8,000,000														\$ 8,000,000
BATA		Construction	Planned	Previous	\$ 59,118,014														\$ 59,118,014
BATA		Construction	Planned	2019/20	\$ 20,720,222														\$ 20,720,222
Federal Transit Formula Funds		Construction	Planned	2022/23	\$ 105,205,364				\$ 105,205,364										\$ 105,205,364
TBD (e.g. new revenues)		Construction	Planned	Previous	\$ 17,831,145														\$ 17,831,145
<b>Total By Fiscal Year</b>					<b>\$ 1,071,700,991</b>	<b>\$ 14,820,029</b>	<b>\$ 50,798,106</b>	<b>\$ 182,865,046</b>	<b>\$ 218,798,548</b>	<b>\$ 163,428,549</b>	<b>\$ 58,258,549</b>	<b>\$ 3,147,426</b>	<b>\$ 5,219,565</b>	<b>\$ 3,749,565</b>	<b>\$ 3,749,565</b>	<b>\$ 3,749,565</b>	<b>\$ 7,184,583</b>	<b>\$ 7,184,583</b>	<b>\$ 853,922,846</b>

**Comments**  
 Prop K funds from the Vehicles-Muni and Vehicles-Undesignated categories are for replacement vehicles only. Prop K funds from the Purchase Additional LRV's category are for expansion vehicles.  
 The Transportation Authority Board approved a commitment to allocate the \$27.8 million (\$13.2 million from EP-17M and \$14.6 million from EP-17U) in FY19/20 Prop K funds.  
 TBD revenue is most likely RM 3.  
 The proposed Prop K programming for the accelerated delivery schedule is subject to the following conditions:  
 (1) SMTA may not issue notice to proceed on procurement of the 151 replacement vehicles prior to allocation of additional Prop K funds (up to \$62.7 million);  
 (2) As a prerequisite to allocation of additional Prop K funds, SMTA shall present to the SMTA Board and Transportation Authority CAC and Board the proposed schedule, cost and funding plan, including any associated financing costs, along with an updated cost benefit analysis of early retirement of the LRVs;  
 (3) Allocation of additional Prop K funds will be conditioned upon SMTA and MTC providing evidence that all their respective funds are committed to the project.

**Schedule Comparing Regular vs. Accelerated Delivery  
of New Light Rail Vehicles**

<b>Fiscal Year</b>	<b>Fiscal Quarter</b>	<b>Original Contract Pace</b>	<b>Accelerated (4/mo)</b>	<b>Bredas Eligible for Retirement<sup>1</sup></b>
2020	Qtr 1			
	Qtr 2			
	Qtr 3		2	
	Qtr 4		13	
2021	Qtr 1		13	
	Qtr 2		13	5
	Qtr 3	3	13	
	Qtr 4	5	13	
2022	Qtr 1	7	13	7
	Qtr 2	6	13	9
	Qtr 3	6	13	11
	Qtr 4	6	13	11
2023	Qtr 1	6	13	9
	Qtr 2	7	13	10
	Qtr 3	6	6	4
	Qtr 4	6		3
2024	Qtr 1	7		1
	Qtr 2	7		
	Qtr 3	7		4
	Qtr 4	6		1
2025	Qtr 1	7		4
	Qtr 2	7		9
	Qtr 3	7		1
	Qtr 4	6		4
2026	Qtr 1	6		10
	Qtr 2	7		6
	Qtr 3	8		6
	Qtr 4	5		10
2027	Qtr 1	7		4
	Qtr 2	6		6
	Qtr 3			4
	Qtr 4			3
2028	Qtr 1			1
	Qtr 2			
	Qtr 3			4
	Qtr 4			1
2029	Qtr 1			1
	Qtr 2			
	Qtr 3			
	Qtr 4			
	<b>TOTAL</b>	<b>151</b>	<b>151</b>	<b>149</b>

<sup>1</sup>Two LRVS are wrecked. They need to be replaced but do not need to be retired.

**DRAFT LRV Funding Plan**  
**Comparison of Standard vs. Accelerated Procurement**

SFMTA Fund Programming - Standard Fund Source	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	TOTAL
Prop K EP 17 2015					\$804,986	\$6,243,179	\$17,660,298	\$20,599,224	\$21,211,672	\$21,323,892	\$20,401,149	\$14,270,379	\$4,045,873	\$126,560,652
Prop K EP 17 2020*					\$1,598,679	\$26,131,002	\$80,677,226	\$127,696,551	\$390,648,147					\$599,021,924
TCP														\$23,165,821
SFMTA - Revenue Bond			\$23,165,821				\$8,197,748	\$7,268,835						\$15,466,583
CCSF - New Revenue Measure			\$13,000,000	\$3,800,000			\$3,999,304							\$16,800,000
Central Subway Contribution														\$11,114,862
Developer Fees - Mission Rock					\$7,115,558									\$5,998,555
Developer Fees - Pier 70					\$5,998,555									\$10,227,539
FTA-5307 (Not TCP)														\$5,250,000
IPIC - Market Octavia Area Plan Fees					\$5,250,000									\$8,000,000
Operating														\$4,592,490
Prop K EP 15 2015		\$3,092,490	\$1,500,000											\$100,884,829
SFMTA - Revenue Bond		\$11,512,539	\$73,646,726											\$21,000,000
SFMTA - Revenue Bond (Mission Bay)			\$21,000,000											\$113,140,000
TIRCP			\$45,092,000	\$26,867,000										\$34,000,000
BATA				\$34,000,000										\$42,242,781
Funding Need				\$19,868,014	\$6,816,664	\$7,347,638			\$8,210,465					\$1,165,195,717
<b>Total</b>	<b>\$75,134,103</b>	<b>\$14,605,029</b>	<b>\$177,404,547</b>	<b>\$84,535,014</b>	<b>\$27,584,442</b>	<b>\$39,721,819</b>	<b>\$110,534,576</b>	<b>\$155,564,610</b>	<b>\$420,070,284</b>	<b>\$21,323,892</b>	<b>\$20,401,149</b>	<b>\$14,270,379</b>	<b>\$4,045,873</b>	<b>\$1,165,195,717</b>

Full Fund Programming-Accelerated Procurement Fund Source	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	TOTAL
Prop K EP 15, 17M, 17U		\$3,092,490	\$1,500,000		\$19,213,993	\$32,374,181	\$26,455,082	\$50,954,350	\$58,258,549	\$2,072,139				\$193,920,784
TCP					\$13,220,000	\$150,490,865	\$180,146,414	\$105,205,364						\$449,062,643
BATA				\$59,118,014	\$20,720,222									\$79,838,236
SFMTA - Revenue Bond			\$117,812,547											\$145,050,650
FTA-5307 (Not TCP)														\$10,227,539
CCSF - New Revenue Measure							\$8,197,748	\$7,268,835						\$15,466,583
Central Subway Contribution			\$13,000,000	\$3,800,000										\$16,800,000
Developer Fees - Mission Rock					\$7,115,558		\$3,999,304							\$11,114,862
Developer Fees - Pier 70					\$5,998,555									\$5,998,555
IPIC - Market Octavia Area Plan Fees					\$5,250,000									\$8,000,000
Operating														\$8,000,000
TIRCP			\$45,092,000	\$26,867,000										\$113,140,000
Funding Need										\$3,147,426	\$3,749,565	\$3,749,565	\$7,184,583	\$17,831,139
<b>Total</b>	<b>\$75,134,103</b>	<b>\$14,605,029</b>	<b>\$177,404,547</b>	<b>\$89,785,014</b>	<b>\$71,518,328</b>	<b>\$182,865,046</b>	<b>\$218,798,548</b>	<b>\$163,428,549</b>	<b>\$58,258,549</b>	<b>\$5,219,565</b>	<b>\$3,749,565</b>	<b>\$3,749,565</b>	<b>\$7,184,583</b>	<b>\$1,071,700,991</b>

2014 5-Year Project List (FY 2014/15 - FY 2018/19)

Vehicles - Muni (EP 17M)  
Programming and Allocations to Date

Approved 10.21.14

Agency	Project Name	Phase	Status	Fiscal Year					Total
				2014/15	2015/16	2016/17	2017/18	2018/19	
SFMTA	Historic Vehicle Rehabilitation/Replacement (16 PCC)	PROC	Programmed			\$4,785,063			\$4,785,063
SFMTA	Historic Vehicle Rehabilitation/Replacement (Milan and Vintage)	PROC	Programmed			\$3,304,749			\$3,304,749
SFMTA	Replace 34 Neoplan 40' Motor Coaches and Replace 76 Neoplan 60' Buses	PROC	Programmed		\$45,465,166				\$45,465,166
SFMTA	Replace 41 Neoplan 40' Motor Coaches and Replace 48 Neoplan 60' Motor Coaches (2015/16)	PROC	Programmed		\$37,493,415				\$37,493,415
SFMTA	Replace 30 Orion 30' Motor Coaches and Replace 56 Orion 40' Motor Coaches (2018/19)	PROC	Programmed					\$26,433,627	\$26,433,627
SFMTA	Motor Coach Replacement Warranty: 30' Motor Coaches (30), 40' Motor Coaches (211), 60' Motor Coaches (124)	Warranty	Programmed		\$150,000				\$150,000
SFMTA	Replace 60 New Flyer 60' Trolley Coaches (2014/15)	PROC	Programmed	\$21,000,000					\$21,000,000
SFMTA	Replace 100 ETI 40' Trolley Coaches (2015/16)	PROC	Programmed		\$53,611,069				\$53,611,069
SFMTA	Replace 33 ETI 60' Trolley Coaches	PROC	Programmed			\$16,111,653			\$16,111,653
SFMTA	Replace 75 ETI 40' Trolley Coaches	PROC	Programmed			\$40,208,302			\$40,208,302
SFMTA	Replace 65 ETI 40' Trolley Coaches with 12 60' Trolley Coaches	PROC	Programmed				\$5,858,783		\$5,858,783
SFMTA	Trolley Coach Replacement Warranty: 40' Trolley Coaches (175); 60' Trolley Coaches (105)	Warranty	Programmed			\$150,000			\$150,000
SFMTA	Paratransit Van Replacement: Class B Vehicle (35)	PROC	Programmed					\$931,019	\$931,019
SFMTA	LRV Procurement <sup>1</sup>	PROC	Allocated	\$60,116,310					\$60,116,310
				<b>Programmed in 5YPP</b>					
				\$81,116,310	\$136,719,650	\$64,559,767	\$5,858,783	\$27,364,646	\$315,619,156
				<b>Total Programmed in 2014 Strategic Plan</b>					
				\$81,116,310	\$136,719,650	\$64,559,767	\$5,858,783	\$27,364,646	\$315,619,156
				<b>Cumulative Remaining Programming Capacity</b>					
				\$3,580,000	\$3,580,000	\$3,580,000	\$3,580,000	\$3,580,000	\$3,580,000

Programmed
Pending Allocation/ Appropriation
Board Approved Allocation/ Appropriation

Footnotes:

<sup>1</sup> Strategic Plan and comprehensive 5YPP Amendment to accommodate SFMTA's LRV Procurement project (Res. 15-12, 10.21.2014).

**2014 5-Year Project List (FY 2014/15 - FY 2018/19)**  
**Vehicles - Muni (EP 17M)**  
**Programming and Allocations to Date**  
 Pending November 27, 2018 Board

Agency	Project Name	Phase	Status	Fiscal Year					Total
				2014/15	2015/16	2016/17	2017/18	2018/19	
SFMTA	Historic Vehicle Rehabilitation/Replacement (16 PCC) <sup>1</sup>	PROC	Programmed			\$0			\$0
SFMTA	Historic Vehicle Rehabilitation/Replacement (Milan and Vintage) <sup>1</sup>	PROC	Programmed			\$0			\$0
SFMTA	Replace 34 Neoplan 40' Motor Coaches and Replace 76 Neoplan 60' Buses	PROC	Programmed		\$0				\$0
SFMTA	Replace 41 Neoplan 40' Motor Coaches and Replace 48 Neoplan 60' Motor Coaches (2015/16)	PROC	Programmed		\$0				\$0
SFMTA	61 60-ft Low Floor Diesel Hybrid Motor Coaches (26 replace+35 expand)	PROC	Allocated		\$12,352,094				\$12,352,094
SFMTA	48 40-ft and 50 60-ft Low Floor Diesel Hybrid Motor Coaches	PROC	Allocated		\$33,405,243				\$33,405,243
SFMTA	Replace 30 Orion 30' Motor Coaches and Replace 56 Orion 40' Motor Coaches (2018/19) <sup>1</sup>	PROC	Programmed					\$0	\$0
SFMTA	85 40-ft and 63 60-ft Low-Floor Hybrid Diesel Motor Coaches	PROC	Allocated		\$47,641,538				\$47,641,538
SFMTA	85 40-ft and 63 60-ft Low-Floor Hybrid Diesel Motor Coaches - Warranty	Warranty	Allocated		\$227,465				\$227,465
SFMTA	Replace 30 30-foot Hybrid Diesel Motor Coaches	PS&E	Allocated				\$356,422		\$356,422
SFMTA	Replace 30 30-foot Hybrid Diesel Motor Coaches <sup>1</sup>	CON	Planned					\$24,847,075	\$24,847,075
SFMTA	Motor Coach Replacement Warranty: 30' Motor Coaches (30), 40' Motor Coaches (211), 60' Motor Coaches (124) <sup>1</sup>	Warranty	Programmed		\$0				\$0
SFMTA	Replace 60 New Flyer 60' Trolley Coaches <sup>1</sup>	PROC	Programmed	\$0					\$0
SFMTA	Replace 60 New Flyer 60' Trolley Coaches	PROC	Allocated	\$20,831,776					\$20,831,776
SFMTA	Replace 100 ETI 40' Trolley Coaches (2015/16) <sup>1</sup>	PROC	Programmed		\$0				\$0
SFMTA	Replace 85 40-Foot Trolley Coaches <sup>1</sup>	CON	Planned					\$7,542,844	\$7,542,844
SFMTA	67 40-foot and 50 60-foot Low Floor Hybrid Diesel Motor Coaches	PROC	Allocated			\$12,550,152			\$12,550,152
SFMTA	67 40-foot and 50 60-foot Low Floor Hybrid Diesel Motor Coaches - Reserve	PROC	Allocated			\$16,850,587			\$16,850,587
SFMTA	68 40-foot and 50 60-foot Low Floor Hybrid Diesel Motor Coaches - Warranty	Warranty	Allocated			\$696,096			\$696,096
SFMTA	Replace 14 60-Foot Trolley Coaches	PROC	Allocated		\$5,000,000				\$5,000,000
SFMTA	Replace 27 Paratransit Vans - Procurement	PROC	Allocated			\$31,388			\$31,388
SFMTA	Replace 27 Paratransit Vans - Design	PS&E	Allocated			\$686,827			\$686,827
SFMTA	Replace 33 ETI 60' Trolley Coaches <sup>1</sup>	PROC	Programmed			\$0			\$0
SFMTA	Replace 19 60-Foot Trolley Coaches	PROC	Allocated				\$6,083,580		\$6,083,580



**Vehicles - Muni (EP 17M)**  
**Programming and Allocations to Date**

Pending November 27, 2018 Board

Agency	Project Name	Phase	Status	Fiscal Year					Total
				2014/15	2015/16	2016/17	2017/18	2018/19	
SFMTA	Replace 19 ETI 60' Trolley Coaches - Warranty	PROC	Allocated				\$554,000		\$554,000
SFMTA	Replace 75 ETI 40' Trolley Coaches <sup>1</sup>	PROC	Programmed			\$0			\$0
SFMTA	Replace 100 40-foot Trolley Coaches	PROC	Allocated				\$28,245,153		\$28,245,153
SFMTA	Replace 100 40-foot Trolley Coaches - Warranty	Warranty	Allocated				\$670,000		\$670,000
SFMTA	Replace 65 ETI 40' Trolley Coaches with 12 60' Trolley Coaches <sup>1</sup>	PROC	Programmed				\$0		\$0
SFMTA	Trolley Coach Replacement Warranty: 40' Trolley Coaches (175); 60' Trolley Coaches (105) <sup>1</sup>	Warranty	Programmed			\$0			\$0
SFMTA	Paratransit Van Replacement: Class B Vehicle (35)	PROC	Pending					\$931,019	\$931,019
SFMTA	Light Rail Vehicle Procurement (EP 17M) <sup>1</sup>	PROC	Allocated	\$60,116,311					\$60,116,311
				<b>Programmed in 5YPP</b>					
				<b>Programmed in 2014 Strategic Plan</b>					
				<b>Cumulative Remaining Programming Capacity</b>					
				\$80,948,087	\$98,626,340	\$30,815,050	\$35,909,155	\$33,320,938	\$279,619,570
				\$77,536,310	\$136,719,650	\$64,559,767	\$5,858,783	\$27,364,646	\$312,039,156
				\$3,547,283	\$41,640,593	\$75,385,310	\$45,334,938	\$39,378,646	\$39,378,646

Programmed
Pending Allocation / Appropriation
Board Approved Allocation / Appropriation

**FOOTNOTES:**

<sup>1</sup> Comprehensive 2014 5YPP amendment concurrent with 2019 and 5YPP adoption (resolution XX, approved YY):

Historic Vehicle Rehabilitation/Replacement (16 PCC): Reduced from \$4,785,063 to \$0. Project is fully funded from non-Prop K sources. Funds to be reprogrammed in 2019 Vehicles-Muni 5YPP.

Historic Vehicle Rehabilitation/Replacement (Milan and Vintage): Reduced from \$3,304,749 to \$0. Project will advance in the 2019 Vehicles-Muni 5YPP.

Replace 30 Orion 30' Motor Coaches and Replace 56 Orion 40' Motor Coaches: Reduced from \$26,433,627 to \$0. \$24,847,075 to be reprogrammed to Replace 30 30-foot Hybrid Diesel Motor Coaches in FY 18/19, and \$1,586,552 to be reprogrammed in 2019 Vehicles-Muni 5YPP. Replacement of the 56 40-foot Orion motor coaches is complete.

Replace 30 30-foot Hybrid Diesel Motor Coaches: Added project with \$24,847,075 in FY 18/19.

Replace 100 ETI 40' Trolley Coaches (2015/16): Reduced from \$7,846,478 to \$0. \$7,542,844 to be reprogrammed to Replace 85 40-Foot Trolley Coaches in FY 18/19, \$303,634 to be reprogrammed in the 2019 Vehicles-Muni 5YPP. The Replace 100 40-foot Trolley Coaches project was fully funded through Resolution 2017-054.

Replace 85 40-Foot Trolley Coaches: Added project with \$7,542,844 in FY 18/19.

Replace 33 ETI 60' Trolley Coaches: Reduced from \$9,474,073 to \$0. Funds to be reprogrammed in the 2019 Vehicles-Muni 5YPP.

Replace 75 ETI 40' Trolley Coaches: Reduced from \$11,293,149 to \$0. Funds to be reprogrammed in the 2019 Vehicles-Muni 5YPP.

Replace 65 ETI 40' Trolley Coaches with 12 60' Trolley Coaches: Reduced from \$5,858,783 to \$0. Funds to be reprogrammed in the 2019 Vehicles-Muni 5YPP.

Motor Coach and Trolley Coach warranties: Reduced from a total of \$468,224 to \$0. Funds to be reprogrammed in the 2019 Vehicles-Muni 5YPP.

Light Rail Vehicle Procurement: Advanced cash flow distribution schedule for previously allocated funds to facilitate an accelerated vehicle delivery schedule. See Project Information Form for details.

**San Francisco County Transportation Authority  
Proposition K Sales Tax Program Project Information Form**



Prop K Project Information Form	
<b>Project Name:</b>	Replace 85 40-Foot Trolley Coaches
<b>Implementing Agency:</b>	San Francisco Municipal Transportation Agency
Prop K Expenditure Plan Information	
<b>Category:</b>	A. Transit
<b>Subcategory:</b>	iii. System Maintenance and Renovation (transit)
<b>EP Line (Primary):</b>	17M-Vehicles - MUNI
<b>Other EP Line Number/s:</b>	
<b>Fiscal Year of Allocation:</b>	2018/19
Project Information	
<b>Project Location:</b>	Citywide
<b>Supervisory District(s):</b>	Citywide
<b>Project Manager:</b>	Gary Chang
<b>Phone Number:</b>	415-401-3173
<b>Email:</b>	Gary.Chang@SFMTA.com
<b>Brief Project Description for MyStreetSF (80 words max):</b>	Procurement of 85 40-foot standard New Flyer electric trolley coaches to replace vehicles that have reached the end of their useful lives.
<b>Detailed Scope (may attach Word document):</b> Please describe the project goals, scope, benefits and how the project was prioritized. Also, describe any coordination with other projects (e.g. paving, MuniForward, Vision Zero).	see attached
<b>Prior Community Engagement/Support (may attach Word document):</b> Please reference any community outreach that has occurred and whether the project is included in any plans (e.g. neighborhood transportation plan, corridor improvement study, station area plans).	
<b>Partner Agencies:</b> Please list partner agencies and identify a staff contact at each agency.	None
<b>Type of Environmental Clearance Required:</b>	Categorically Exempt
<b>Attachments:</b> Please attach maps, drawings, photos of current conditions, etc. to support understanding of the project.	Yes      Detailed scope description.

Project Delivery Milestones	Status		Start Date		End Date	
	% Complete	In-house - Contracted - Both	Quarter	Fiscal Year	Quarter	Fiscal Year
Planning/Conceptual Engineering						
Environmental Studies (PA&ED)						
Right of Way						
Design Engineering (PS&E)	100%		Q3-Jan-Feb-Mar	2012/13	Q2-Oct-Nov-Dec	2014/15
Advertise Construction						
Start Construction (i.e. Award Contract)	0%	Contracted	Q3-Jan-Feb-Mar	2018/19		
Operations (i.e. paratransit)						
Open for Use					Q1-Jul-Aug-Sep	2019/20
Project Completion (means last eligible expenditure)					Q2-Oct-Nov-Dec	2019/20

**Comments/Concerns**

## Replace 85 40-foot Trolley Coaches

### Background

The SFMTA currently has a fleet of 240 40-ft standard ETI trolley coaches that were placed into service in 2001 – 2003. The useful life of trolley coaches per Federal Transit Administration (FTA) Circular C5010.1E is 15 years. Therefore, most of the ETI Trolley coaches have already exceeded their useful life and are overdue for replacement. The SFMTA has entered into a joint procurement contract with King County Metro in Seattle (the second largest trolley coach operator in the United States). Through options to the multi-year contract the SFMTA plans to purchase up to 240 40-foot standard and 93 60-foot articulated trolley coaches. A contract for an initial purchase of 60 articulated trolley coaches from New Flyer Inc. was signed on February 26, 2014, partially funded by a \$20,831,776 Prop K allocation. On August 31, 2016 Contract Amendment #1 was exercised to purchase an additional 33 articulated trolley coaches, partially funded by a \$5 million Prop K allocation. Deliveries of these 33 articulated trolleys, which replace the older 60-foot ETI trolley coaches, were completed in March 2018.

Performance of the 240 ETI 40-ft standard trolley coaches has been declining due to mechanical and electrical system failures, and finding replacement parts to maintain the trolley coaches is difficult since ETI has been out of business since 2004. Maintenance costs have been increasing exponentially as the fleet has reached the end of its service lifespan. Consequently, SFMTA has made the decision to retire and replace these ETI 40-ft coaches by 2019.

### Scope

To begin replacing these vehicles, the SFMTAB Board approved Contract Amendment # 2 to purchase 185 40-ft standard trolley coaches from New Flyer Inc. in 2017. This Contract Amendment #2 includes related tools, training and spare parts, for a total amount not to exceed approximately \$245 million, and for a term not to exceed six years. A prior Prop K request provided matching funds for \$115.66 million in FTA funds, allowing SFMTA to issue a Notice to Proceed (NTP) for production of 100 of the trolley coaches. This project is funded by \$7.5 million in Prop K to match \$113.5 million of AB664 Bridge Toll, BATA Project Savings and FTA funds, all of which must be secured to issue an NTP for the remaining 85 trolley coaches.

### SFMTA/ New Flyer Contract – Trolley Coach Procurement

Contract/ Option	Date of NTP	# Trolleys to be Procured	Vehicle Type	Vehicles Replaced	Originally Placed in Service	Total Cost	Prop K Funds
Base Contract	Feb-2014	60	60' Articulated	New Flyer 60-foot	1993-94	\$105.2M	\$20.8M
Contract Amendment #1	<i>Replace 33 ETI 60-foot articulated trolley coaches</i>					\$58.2M	
NTP 1	Oct-2016	14	60' Articulated	ETI 60-foot	2003		\$5.0M
NTP 2	N/A	19	60' Articulated	ETI 60-foot	2003		\$6.1M
TOTAL 60-foot		93	60' Articulated				\$11.1M
Contract Amendment #2	<i>Replace 185 ETI 40-foot standard trolley coaches</i>					\$265.6M	
NTP 1	July 2017	100	40' Standard	ETI 40-foot	2001-03		\$28.9M
NTP 2	N/A	85	40' Standard	ETI 40-foot	2001-03		\$24.2M
TOTAL 40-foot		185	40' Standard				\$53.1M

The SFMTA will not replace the remaining 55 40-foot trolleys with additional trolleys. In its 2014 Fleet Plan, the SFMTA laid out its goal of increasing capacity on its Rapid and Local Frequent routes by upgrading from 40-foot buses to 60-foot buses. This is part of the readjustment to reduce the quantity of 40-foot trolleys.

### Benefits

The Replacement of 185 40-Foot Trolley Coaches project will ensure that there are enough vehicles available to transport passengers throughout the City. A portion of the replacement trolley coaches will be used for the bus rapid transit (BRT) service being planned on the Van Ness corridor. The Van Ness BRT project will allow a faster mode of transportation through one of the busiest corridors in the city. The replacement trolley coaches are anticipated to have a useful life of 15 years.



San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form

**Project Name:** Replace 85 40-Foot Trolley Conches

Project Cost Estimate	Phase	Cost	Funding Source		
			Prop K	Other	
	Planning/Conceptual Engineering	\$ -	\$ -	\$ -	
	Environmental Studies (PA&ED)	\$ -	\$ -	\$ -	
	Right of Way	\$ -	\$ -	\$ -	
	Design Engineering (P&SE)	\$ -	\$ -	\$ -	
	Construction	\$ 265,623,242	\$ 36,457,997	\$ 229,165,245	
	Operations (i.e. paratransit)	\$ -	\$ -	\$ -	
	<b>Total Project Cost</b>	\$ 265,623,242	\$ 36,457,997	\$ 229,165,245	
	<b>Percent of Total</b>		14%	86%	

Cash Flow for Prop K Only (i.e. Fiscal Year of Reimbursement)												
Funding Plan - All Phases	Fund Source	Prop K Expenditure Line	Phase	Fund Source Status	Fiscal Year of Allocation (Programming Year)	Total Funding	Previous	2019/20	2020/21	2021/22	2022/23	2023/24
Prop K	17M-Vehicles - MUNI	Construction	Allocated	Previous	\$ 28,915,153	\$ 28,455,153	\$ 210,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -
Prop K	17M-Vehicles - MUNI	Construction	Programmed	Previous	\$ 7,542,844	\$ 2,490,000	\$ 5,052,844	\$ -	\$ -	\$ -	\$ -	\$ -
AB664 Bridge Tolls		Construction	Programmed	Previous	\$ 7,429,442	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transit Capital Priorities		Construction	Allocated	Previous	\$ 127,842,972	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FTA - 5337 - Fixed Guideway		Construction	Programmed	Previous	\$ 93,892,831	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				<b>Total By Fiscal Year</b>	<b>\$ 265,623,242</b>	<b>\$ 30,945,153</b>	<b>\$ 5,262,844</b>	<b>\$ 250,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**Comments**

**San Francisco County Transportation Authority  
Proposition K Sales Tax Program Project Information Form**

<b>Prop K Project Information Form</b>	
<b>Project Name:</b>	Replace 30 30-foot Hybrid Diesel Motor Coaches
<b>Implementing Agency:</b>	San Francisco Municipal Transportation Agency
<b>Prop K Expenditure Plan Information</b>	
<b>Category:</b>	A. Transit
<b>Subcategory:</b>	iii. System Maintenance and Renovation (transit)
<b>EP Line (Primary):</b>	17M-Vehicles - MUNI
<b>Other EP Line Number/s:</b>	
<b>Fiscal Year of Allocation:</b>	FY2018/19
<b>Project Information</b>	
<b>Project Location:</b>	Citywide
<b>Supervisorial District(s):</b>	Citywide
<b>Project Manager:</b>	Gary Chang
<b>Phone Number:</b>	(415) 646-2636
<b>Email:</b>	<a href="mailto:Gary.Chang@sfmta.com">Gary.Chang@sfmta.com</a>
<b>Brief Project Description for MyStreetSF (80 words max):</b>	Replacement of 30 30-foot hybrid diesel motor coaches that have reached the end of their useful lives. The new buses will improve reliability and reduce maintenance costs to the fleet of smaller buses serving community routes such as 35-Eureka, 36-Teresita, 37-Corbett and 56-Rutland.
<b>Detailed Scope (may attach Word document):</b> Please describe the project goals, scope, benefits and how the project was prioritized. Also, describe any coordination with other projects (e.g. paving, MuniForward, Vision Zero).	<p>As part of its regular daily passenger service, the SFMTA operates a fleet of thirty 30-foot Orion diesel hybrid coaches. These coaches serve the community routes, such as 35-Eureka, 36-Teresita, 37-Corbett, 39-Coit, and 56-Rutland. According to Federal Transit Administration Circular 5010.1E, these coaches, which are considered small, heavy-duty transit buses, have a useful life of ten years or 350,000 miles. The SFMTA's fleet of these buses has reached the end of its ten-year useful life and most of the coaches have also exceeded the 350,000 miles threshold as of the end of 2017.</p> <p>The Orion fleet went into service in 2007 and is the oldest diesel hybrid fleet in the SFMTA. This fleet is experiencing increased mechanical failures, which have led to increased maintenance costs and decreased reliability with a Mean Distance Between Failure of 4,000 miles. The replacement vehicles will improve reliability and decrease maintenance costs.</p> <p>Under this procurement, the SFMTA intends to purchase thirty 30-foot or smaller coaches and associated spare parts, training, manuals and special tools. The SFMTA will consider coaches with either diesel hybrid or electric propulsion systems. These new buses will be equipped with the new radio system and fare box, new passenger seat with stroller parking, improved wheelchair securement area, and improved emission control that is more environmental friendly than the buses they are replacing.</p>
<b>Prior Community Engagement/Support (may attach Word document):</b> Please reference any community outreach that has occurred and whether the project is included in any plans (e.g. neighborhood transportation plan, corridor improvement study, station area plans).	N/A
<b>Partner Agencies:</b> Please list partner agencies and identify a staff contact at each agency.	
<b>Type of Environmental Clearance Required:</b>	Categorically Exempt
<b>Attachments:</b> Please attach maps, drawings, photos of current conditions, etc. to support understanding of the project.	No

**San Francisco County Transportation Authority  
Proposition K Sales Tax Program Project Information Form**



Project Delivery Milestones	Status	Work	Start Date		End Date	
	% Complete	In-house - Contracted - Both	Quarter	Fiscal Year	Quarter	Fiscal Year
Planning/Conceptual Engineering			Q1-Jul-Aug-Sep	2017/18	Q2-Oct-Nov-Dec	2017/18
Environmental Studies (PA&ED)			Q1-Jul-Aug-Sep	2017/18	Q1-Jul-Aug-Sep	2017/18
Right of Way						
Design Engineering (PS&E)	5%	Contracted	Q3-Jan-Feb-Mar	2017/18	Q3-Jan-Feb-Mar	2018/19
Advertise Construction			Q3-Jan-Feb-Mar	2017/18		
Start Construction (i.e. Award Contract)			Q3-Jan-Feb-Mar	2018/19		
Operations (i.e. paratransit)						
Open for Use					Q4-Apr-May-Jun	2019/20
Project Completion (means last eligible expenditure)					Q2-Oct-Nov-Dec	2024/25

**Comments/Concerns**



San Francisco County Transportation Authority  
 Proposition K Sales Tax Program Project Information Form

**Project Name:** Replace 30 30-foot Hybrid Diesel Motor Coaches

Phase	Cost	Funding Source		
		Prop K	Other	
Planning/Conceptual Engineering	\$ -	\$ -	\$ -	
Environmental Studies (P&EID)	\$ -	\$ -	\$ -	
Right of Way	\$ -	\$ -	\$ -	
Design Engineering (P&E)	\$ 2,760,341	\$ 356,422	\$ 2,403,919	
Construction	\$ 40,899,006	\$ 24,847,075	\$ 16,051,931	
Operations (i.e. paratransit)	\$ -	\$ -	\$ -	
<b>Total Project Cost</b>	<b>\$ 43,659,347</b>	<b>\$ 25,203,497</b>	<b>\$ 18,455,850</b>	
<b>Percent of Total</b>		<b>58%</b>	<b>42%</b>	

Funding Plan - All Phases		Cash Flow for Prop K Only (i.e. Fiscal Year of Reimbursement)									
Fund Source	Prop K Expenditure Line	Phase	Fund Source Status	Fiscal Year of Allocation (Programming Year)	Total Funding	Previous	2019/20	2020/21	2021/22	2022/23	2023/24
Prop K	17M-Vehicles - MUNI	Design Engineering (P&E)	Allocated	Previous	\$ 356,422	\$ 356,422	\$ -	\$ -	\$ -	\$ -	\$ -
Prop K	17M-Vehicles - MUNI	Construction	Programmed	Previous	\$ 24,847,075	\$ 500,000	\$ 24,347,075				
BATA Project Savings		Design Engineering (P&E)	Programmed	Previous	\$ 2,403,919	\$ 2,403,919	\$ -	\$ -	\$ -	\$ -	\$ -
BATA Project Savings		Construction	Programmed	Previous	\$ 16,051,931	\$ 16,051,931	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total By Fiscal Year</b>					<b>\$ 43,659,347</b>	<b>\$ 19,312,272</b>	<b>\$ 24,347,075</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**Comments:**