Short Range Transit Plan

Fiscal Year 2019 - Fiscal Year 2030

SFMTA

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Anticipated approval by the SFMTA Board of Directors: December 2019

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INTRODUCTION TO THE SRTP

ABOUT SHORT RANGE TRANSIT PLANS

Federal transportation statutes require that the Metropolitan Transportation Commission (MTC), in partnership with state and local agencies, develop and periodically update a long-range Regional Transportation Plan (RTP) and a Transportation Improvement Program (TIP) implementing the RTP by programming federal funds to transportation projects contained in the RTP. In order to effectively execute these planning and programming responsibilities, MTC requires that each transit operator in its region that receives federal funding through the TIP prepare, adopt and submit to MTC a Short Range Transit Plan (SRTP).

The preparation of this report has been funded in part by a grant from the U.S. Department of Transportation (DOT) through section 5303 of the Federal Transit Act. The contents of this SRTP reflect the views of the San Francisco Municipal Transportation Agency (SFMTA), and not necessarily those of the Federal Transit Administration (FTA) or MTC. The SFMTA is solely responsible for the accuracy of the information presented in this SRTP.

ABOUT THIS SRTP

This is the Fiscal Years (FY) 2019-2030 update of the SFMTA SRTP. Consistent with MTC requirements, it includes the following chapters:

Chapter 2, Introduction to the SFMTA and Muni. This chapter provides an introduction to the SFMTA, the City and County of San Francisco transportation agency of which Muni is a part, and Muni, the transit division of the SFMTA. It briefly describes the history of both, and the SFMTA's organizational structure. It then describes the transit services Muni provides, the fares it charges, and its vehicle fleet and facilities.

Chapter 3, Standards and Policies. This chapter briefly describes the policy framework that guides the SFMTA and Muni, including the SFMTA's Strategic Plan, Muni performance measures, and major policies including San Francisco's Transit-First Policy, Muni's Service Equity Policy, and the City and County's Vision Zero safety program.

Chapter 4, System Overview and Evaluation. This chapter goes into more detail about Muni service. It includes an overview of the fixed-route transit system, including the network structure and service standards used to guide its design, as well as recent performance. It also includes a number of required elements of each SRTP: an overview of equipment and facilities, a description of the MTC Community-Based Transportation Planning Program, a description of Americans with Disabilities Act (ADA) paratransit services, an overview of Muni's federal Title VI compliance efforts, and results of the most recent FTA Triennial Review of the agency.

Chapter 5, Operations Plan and Budget. This chapter provides details about both near-term operations and budget. Muni's operations plan includes a fixed-route service framework and projected service levels, while its adopted budget includes both funding sources, projected revenues and expenses.

Chapter 6, Capital Plans and Programs. This chapter provides an overview of Muni's capital plans, starting with brief descriptions of the agency's short-, medium- and long-term planning processes and a discussion of funding sources. It then discusses capital programs and major projects that are planned, plans for fleet replacement, planned facilities upgrades, and non-transit SFMTA capital programs.

INTRODUCTION TO THE SFMTA AND MUNI

INTRODUCTION

Established by voter proposition in 1999, the San Francisco Municipal Transportation Agency (SFMTA), a department of the City and County of San Francisco, operates Municipal Railway (Muni) transit and paratransit service and facilitates and regulates parking, traffic, bicycling, walking and taxis within San Francisco. Across five modes of transit, Muni has approximately 725,000 weekday passenger boardings. Founded in 1912, it is one of the oldest transit systems in the world. It is also the largest transit system in the Bay Area, serving more than 220 million customers each year. The Muni fleet is unique and includes historic streetcars, renewable diesel and electric hybrid buses and electric trolley coaches, light rail vehicles, paratransit cabs and vans, and the world-famous cable cars. Muni has 76 routes throughout the City and County San Francisco with all residents within a quarter mile of a transit stop. Muni provides service 24 hours a day, seven days a week.

As an independent agency within the City and County of San Francisco, the SFMTA is governed by a seven-member Board of Directors. Appointed by the Mayor and confirmed by the Board of Supervisors, the SFMTA Board of Directors provides policy oversight, approves the budget, and permits for emerging mobility services and ensures that the public has a voice in the transportation issues that impact their communities.

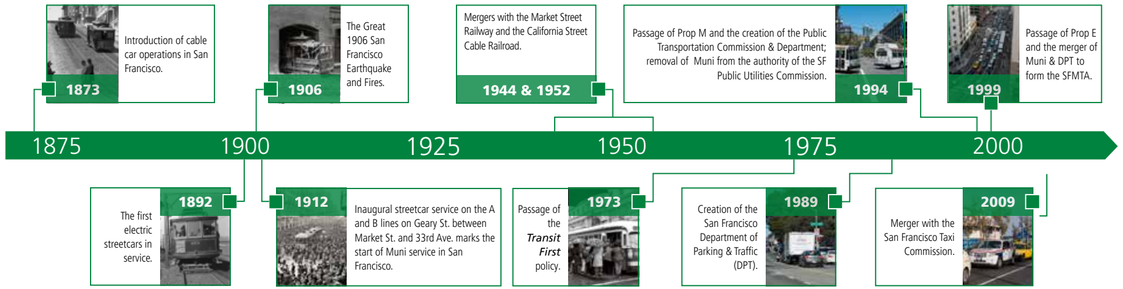
HISTORY

The San Francisco Municipal Railway (Muni) began service in 1912 as the first publicly-owned and operated transit systems in the United States. Several privately-run transit systems had operated in San Francisco since the 19th Century, and continued to operate for some time after the formation of Muni. In 1944, Muni took over operation of the private Market Street Railway Company, tripling the size of its system and, in 1952, acquired the private California Street Railroad. At this point, all transit service in San Francisco came under public control.

In 1999, San Francisco voters approved Proposition E, amending the City Charter and merging Muni with the Department of Parking and Traffic (DPT) to establish a multimodal transportation agency able to more effectively manage city streets and advance the city's Transit First Policy (Section 8A.115 of the Charter). In 2009, the city's Taxi Commission was incorporated into the SFMTA.

Muni provides service 24 hours a day, seven days a week, and carries more than 720,000 riders every weekday on a diverse fleet of light rail vehicles, cable cars, streetcars, trolley coaches, and motor coaches.

Figure 2-1: Major Events in San Francisco Transportation History



GOVERNANCE

Board of Directors

The SFMTA is governed by a seven-member Board of Directors, which provides policy oversight for the agency, including approving the budget, contracts and proposed changes to fares, fees and fines. The Board also has the authority to appoint the Director of Transportation. SFMTA board members also serve as ex-officio members of the San Francisco Parking Authority.

Members of the Board of Directors are appointed by the mayor and confirmed by the Board of Supervisors after a public hearing. Directors may serve up to three two-year terms, and continue to serve until they resign, are replaced or their term expires. At least four of the Directors must be regular riders of public transit, and must continue to be regular riders during their terms. Directors must possess significant knowledge of, or professional experience in, one or more of the fields of government, finance, and labor relations.

At least two of the Directors must possess significant knowledge of, or professional experience in, the field of public transportation. During their terms, all directors are required to ride Muni an average of once a week.

At the first regular meeting of the SFMTA Board after the 15th day of January each year, the Directors elect from among their number a chair and vice-chair.

Citizens' Advisory Council

The SFMTA Citizens' Advisory Council (CAC) is an advisory body to the SFMTA created by Proposition E. The CAC meets monthly to provide recommendations to staff and the Board of Directors related to any matter under the jurisdiction of the agency. It is composed of fifteen members appointed by the Mayor and the Board of Supervisors. There are three CAC subcommittees: Engineering, Maintenance and Safety; Finance and Administration; and Operations and Customer Service.

ORGANIZATIONAL STRUCTURE

2.3.1 Divisions

The SFMTA consists of nine main divisions: Capital Programs and Construction; Finance and Information Technology; Human Resources; Sustainable Streets; System Safety; Taxis and Accessible Services; Transit; Government Affairs; and Communications. In addition to the nine main divisions, the Central Subway Program also reports directly to the Director of Transportation.

Figure 2-2: Members of the Board of Directors

Malcolm A. Heinicke
Chair
Appointed to the Board in 2008; Elected Chairman in 2019.

Cheryl Brinkman
Director
Appointed to the Board in 2014.

Steve Heminger
Director
Appointed to the Board in 2019.

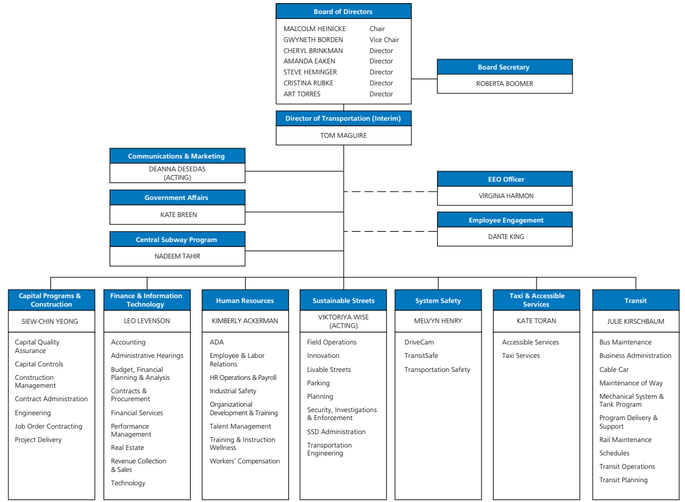
Art Torres
Director
Appointed to the Board in 2017.

Gwyneth Borden
Vice Chair
Appointed to the Board in 2014. Elected Vice-Chairman in 2019.

Amanda Eaken
Director
Appointed to the Board in 2019.

Cristina Rubke
Director
Appointed to the Board in 2012.

Figure 2-3: Organizational Chart



Capital Programs & Construction Division (CP&C)

The CP&C Division is responsible for the design and construction of major infrastructure projects.

Finance & Information Technology Division (FIT)

The FIT Division manages the agency's finances, collects fare revenues, deploys information technology, and manages facilities.

Human Resources Division (HR)

SFMTA HR provides support services including: recruitment; hiring; employment and labor relations; payroll; organizational development and training; employee wellness; equal employment opportunity; and workers' compensation.

Sustainable Streets Division (SSD)

SSD is responsible for multimodal transportation planning and engineering. It also manages 38 parking facilities, enforces parking regulations, enforces transit fare payment compliance, and oversees services provided by the San Francisco Police Department (SFPD) Traffic Division.

System Safety Division

The System Safety Division maintains records for all collisions, incidents, and hazards; conducts internal safety audits and vehicle safety reviews; develops corrective action plans; and performs inspections and mandated safety certifications.

Taxis & Accessible Services (TAS)

Traditionally, Taxis and Accessible Services Division (TAS) has represented a combination of two distinct functions of the SFMTA that substantially overlap in the regulation of the taxi mode of transportation. Accessible Services is a core support function for all modes of the agency to ensure that transit, pedestrian and bike facilities and taxi services are accessible to seniors and people with disabilities. This department also oversees the SFMTA Paratransit program. As one part of that role, Accessible Services has leveraged the private taxi industry in a private-public partnership to provide efficient and effective paratransit service. Taxi Services' function is to license and regulate the private taxi industry to ensure that drivers and vehicles are safe, that taxi service is accessible regardless of trip origin or destination, without illegal discrimination, at prices that are transparent, and that there is an adequate supply of taxicabs to meet customer demand.

In addition to the regulatory oversight of compliance by taxi industry permittees, TAS has recently assumed the responsibility for oversight and management of new regulated mobility permit programs including, Private Transport Vehicles (PTV) and Commuter Shuttle permit

programs, as well as the permit issuance and enforcement of the Electric Shared Scooter permit program. TAS is the operational division that regulates and manages on-going regulated mobility permit programs.

Transit (Muni)

The Transit Division operates the Municipal Railway, known as Muni. It provides safe, reliable and accessible public transit service throughout San Francisco. In addition to the planning, scheduling, and delivery of transit services, this division also maintains the fleet, facilities and infrastructure needed to deliver Muni services.

Communications and Marketing

The Communications Division is responsible for internal and external communications that engage and share information with the customers, stakeholders and the public. The division is responsible for media and public relations, marketing, special events, creative services, community outreach and customer service. The functional expertise of the division enables the SFMTA to keep customers, stakeholders and the general public informed about transportation services, as well as, capital improvement plans and projects that impact people and the communities we serve.

Government Affairs

The Government Affairs Division is responsible for coordinating, developing, advancing and monitoring the SFMTA's legislative and policy interests at the local, state and federal levels. The division also includes Regulatory Affairs responsibilities. The Government Affairs Division works to ensure that a supportive policy and regulatory environment exists to advance the capital project and policy priorities of the Agency. Staff is responsible for development and advocacy of the Agency's annual legislative program; reviewing and monitoring legislation to evaluate impacts on the SFMTA; crafting and advocating for policy positions on pending legislation; and educating elected officials and key stakeholders and others about the SFMTA's project and policy priorities.

Budgeted Positions

The accompanying table shows total numbers of employees in each division, including grant-funded positions, budgeted for Fiscal Years (FY) 2016-2020. The largest staff sizes are in the Transit and Sustainable Streets Divisions, which include transit operators and enforcement personnel, respectively.

Table 2-1: Budgeted Positions by Division

SFMTA DIVISION	FY 2016 FTE AMENDED BUDGET	FY 2017 FTE ADOPTED BUDGET	FY 2018 FTE AMENDED BUDGET	FY 2019 FTE ADOPTED BUDGET	FY 200 FTE ADOPTED BUDGET
Board Of Directors	4.0	4.0	4.0	4.0	4.0
Capital Programs & Construction	158.9	199.6	213.9	209.2	209.2
Communications	26.4	43.6	44.4	41.3	41.2
Director of Transportation	6.7	4.8	4.8	1.8	1.8
Finance & Information Technology	367.3	395.7	398.3	455.2	456.1
Government Affairs	5.0	5.8	6.0	5.0	5.0
Human Resources	155.2	167.9	158.4	167.1	166.6
System Safety	13.8	19.3	19.7	20.0	20.0
Sustainable Streets	689.0	708.3	702.0	687.4	686.5
Transit	3,800.5	4,090.7	4,109.6	4,221.8	4,352.6
Taxis & Accessible Services	28.6	30.5	31.0	29.7	29.7
Grand Total*	5,255.4	5,670.2	5,691.9	5,842.4	5,972.6

** Total FTE (Full Time Equivalent) count includes positions and temp salaries net of attrition savings*

Labor Unions

In partnership with the SFMTA Employee & Labor Relations team, labor unions representing SFMTA staff negotiate work rules and compensation packages for approximately 6,000 employees. There are currently eight SFMTA service-critical and 10 citywide labor agreements, for a total of 18 bargaining units within the SFMTA. All SFMTA collective bargaining agreements and memorandums of understanding are available online at https://www.sfmta.com/about-us/labor-relations/sfmta-mous-cbas.

Table 2-2: Collective Bargaining Agreements and Memorandums of Understanding

LOCAL BRANCH	LABOR UNION	LENGTH OF CONTRACT
SFMTA Service-Critical Collective Bargaining Agreements/Memorandums of Understanding		
Local 250-A (Transit Operators 9163)	Transport Workers' Union (TWU)	July 1, 2019 - June 30, 2022
Local 250-A (Transit Fare Inspectors 9132)		July 1, 2019 - June 30, 2022
Local 250-A (Automotive Service Workers 7410)		July 1, 2019 - June 30, 2022
Local 200		July 1, 2019 - June 30, 2022
Local 6	International Brotherhood of Electrical Workers (IBEW)	July 1, 2019 - June 30, 2022
Local 1414	International Association of Machinists (IAM)	July 1, 2019 - June 30, 2022
Local 1021	Service Employees International Union (SEIU)	July 1, 2019 - June 30, 2022
Municipal Executives Association (MEA)	Municipal Executives Association (MEA)	July 1, 2019 - June 30, 2022
Citywide Collective Bargaining Agreements/Memorandums of Understanding Applicable to SFMTA		
The Northern California Carpenters Regional Council, Local 22 Glaziers, Architectural Metal and Glass Workers, Local 718 Sheet Metal Workers International Union, Local 104 Teamsters, Local 853	Consolidated Crafts	July 1, 2019 - June 30, 2022
Local 21	International Federation of Professional & Technical Engineers (IFPTE)	July 1, 2019 - June 30, 2022
Local 261	Laborers International Union	July 1, 2019 - June 30, 2022
Local 3	Operating Engineers	July 1, 2019 - June 30, 2022
San Francisco City Workers United	Painters	July 1, 2019 - June 30, 2022
Local 1021	Service Employees International Union (SEIU)	July 1, 2019 - June 30, 2022
Local 39	Stationary Engineers	July 1, 2019 - June 30, 2022
Local 856 Multi-Unit	Teamsters	July 1, 2019 - June 30, 2022
Local 38	United Association of Plumbers and Pipefitters	July 1, 2019 - June 30, 2022

TRANSIT SERVICES

Overview

The SFMTA strives to provide a safe, convenient, reliable and accessible transportation system meeting the needs of all travelers within the City and County of San Francisco.

As part of this mission, the agency operates Muni, the oldest and largest transit system in the San Francisco Bay Area. Muni accounts for close to 45 percent of all transit trips in the nine-county region, and is the eighth-largest transit system in the United States, with more than 225 million annual boardings. The Muni fleet is also among the most diverse in the world, with:

- Modern light rail vehicles (including the new LRV4 vehicles introduced into service in 2017)
- America's only remaining cable car network, a U.S. National Historic Landmark
- A collection of historic streetcars from across the U.S. and around the world
- One of America's few remaining electric trolley coach networks
- Clean diesel and hybrid electric motor coaches (soon to be joined by battery-powered electric coaches)
- A range of paratransit vehicles

Muni by the Numbers

- 76 lines
- More than 3,500 stops
- The cleanest, greenest transit fleet in North America, contributing less than 1 percent of all greenhouse gases in San Francisco
- Over 3 million vehicle service hours provided annually
- All residential neighborhoods citywide are within one-quarter of a mile of transit stop
- More than 1,000 vehicles in the fleet

Fixed-Route Services

Muni's fixed-route, non-paratransit service has been organized into a framework consisting of six categories or types of service.

Muni Metro & Rapid Bus

These 13 lines, including the seven Muni Metro light rail lines as well as six Rapid bus lines, account for the majority of Muni ridership. All lines are scheduled to operate every 10 minutes or less all day weekdays, and transit-priority improvements (see "Muni Forward," Chapter 4) are focused on these corridors.

Frequent

These bus lines also operate every 10 minutes or less all day weekdays in major corridors, but make more frequent stops than Rapid lines.

Grid

Along with Muni Metro, Rapid and Frequent lines, these lines form the framework of "trunk" lines providing service across the city. Frequencies vary from every 12 to every 30 minutes all day weekdays.

Connector

These lines are shorter, and serve to provide coverage throughout the city, including neighborhood-based "circulator" service to hillside neighborhoods. They generally operate every 30 minutes all day weekdays.

Historic

This category includes Muni's cable car and historic streetcar lines, which operate every 10 minutes or less all day weekdays.

Specialized

This category includes: express lines, primarily peak period-only services for commuters; supplemental service to middle and high schools; and special event service. Frequencies on these lines vary.

Owl

Some lines operate 24 hours a day, while other overnight lines (operating between 1 and 5 a.m.) are made up of segments of multiple lines.

Figure 2-4: Muni System Map

Table 2-3: Muni Lines by Category

FIXED-ROUTE SERVICE TYPE	LINES
Muni Metro & Rapid Bus	J Church, KT Ingleside/Third Street, L Taraval, M Ocean View, N Judah, 5R Fulton Rapid, 9R San Bruno Rapid, 14R Mission Rapid, 28R 19th Avenue Rapid, 38R Geary Rapid
Frequent	1 California, 7 Haight/Noriega, 8 Bayshore, 9 San Bruno, 14 Mission, 22 Fillmore, 24 Divisadero, 28 19th Avenue, 30 Stockton, 38 Geary, 47 Van Ness, 49 Van Ness/Mission
Grid	2 Clement, 3 Jackson, 5 Fulton, 6 Haight/Parnassus, 10 Townsend, 12 Folsom/Pacific, 18 46th Avenue, 19 Polk, 21 Hayes, 23 Monterey, 27 Bryant, 29 Sunset, 31 Balboa, 33 Ashbury/18th, 43 Masonic, 44 O'Shaughnessy, 45 Union/Stockton, 48 Quintara/24th Street, 54 Felton
Connector	25 Treasure Island, 35 Eureka, 36 Teresita, 37 Corbett, 39 Coit, 52 Excelsior, 55 16th Street, 56 Rutland, 57 Park Merced, 66 Quintara, 67 Bernal Heights
Historic	California Cable Car, Powell/Hyde Cable Car, Powell/Mason Cable Car, E Embarcadero, F Market & Wharves
Specialized (commuter express, shuttles & special events)	NX Judah Express, 1AX California A Express, 1BX California B Express, 7X Noriega Express, 8AX Bayshore A Express, 8BX Bayshore B Express, 14X Mission Express, 30X Marina Express, 31AX Balboa A Express, 31BX Balboa B Express, 38AX Geary A Express, 38BX Geary B Express, 41 Union, 76X Marin Headlands Express, 78X 16th Street Arena Express, 79X Van Ness Arena Express, 81X Caltrain Express, 82X Levi Plaza Express, 83X Mid-Market Express, 88 BART Shuttle
Owl (late night)	L Owl, N Owl, 5 Fulton, 14 Mission, 22 Fillmore, 24 Divisadero, 38 Geary, 44 O'Shaughnessy, 48 Quintara/24th Street, 90 San Bruno Owl, 91 Owl, 25 Treasure Island

2.4.3 Interagency Connections

Muni fixed routes also provide connections to other, regional transit services operating within San Francisco, including:

- Bay Area Rapid Transit (at all eight BART stations in the city as well as Daly City Station just over the southern border)
- Caltrain (at both San Francisco stations)
- Ferry services provided by:
  - San Francisco Bay Ferry (service to the East Bay)
  - Golden Gate Ferry (service to Marin County)
  - Private operators
- Regional bus services provided by:
  - AC Transit ("Transbay" express service to the East Bay)
  - Golden Gate Transit (service to Marin and Sonoma counties in the North Bay)
  - SamTrans (service to San Mateo County on the Peninsula)
- Local shuttle services provided by the Presidio national park site ("PresidiGo"), the University of California San Francisco (UCSF), and others

Four Muni Metro stations under Market Street are shared with BART, whose platforms are one level below Muni's platforms. Most ferry connections are made at the historic Ferry Building at the foot of Market Street and at Pier 41 in Fisherman's Wharf. Most regional bus connections are made at the Salesforce Transit Center in the South of Market (SoMa) district.

2.4.4 Intermodal Connectivity

As a multimodal agency, the SFMTA is able to effectively integrate walking and bicycling with transit use. SFMTA bicycle and pedestrian programs are described under "Streets" in Chapter 6.

Notably, the SFMTA provides bicycle parking at a range of Muni Metro, Rapid and other Muni stops. Muni also accommodates cyclists using racks mounted to motor and trolley coaches (two-bike racks are currently being replaced by three-bike racks), and folding bicycles are allowed aboard all Muni vehicles except cable cars. Finally, pedestrian and bicycle improvements are routinely included in transit capital projects such as those described in Chapter 6.

Paratransit Service

In addition to fixed-route service, the SFMTA administers an on-demand van and taxi program for people who are unable to use fixed-route service due to a disability or disabling health condition. Paratransit service is provided within three-quarters of a mile of all Muni fixed routes.

San Francisco Paratransit service is operated under contract by Transdev, and subcontractors including Centro Latino, Self Help for the Elderly, and Kimochi. Services include:

- SF Access – ADA door-to-door, shared-ride van service requiring customers to make reservations one to seven days in advance.
- Group Van – Specialized van service that picks up and drops off groups of individuals going to the same agency or center. Trips are scheduled with the agency or center and riders must be ADA-eligible.
- Shop-a-Round – A non-ADA program that transports seniors and people with disabilities to grocery stores.
- Van Gogh – A non-ADA program that transports seniors and people with disabilities to social and cultural events, with a goal of reducing social isolation.
- Taxi Service - In addition to these contracted services, all taxi companies in San Francisco are required by City ordinance to participate in the SF Paratransit program. Paratransit customers are issued a debit card to pay for trips taken by taxi.

FARES

Fixed-Route and Paratransit Fares

Muni fares are based on a formula adopted by the SFMTA Board of Directors in 2009, the Automatic Fare Indexing Policy, that provides a more predictable and transparent mechanism for setting fares. Fares are reviewed every two-year budget cycle and may be raised based on changes to the Bay Area Consumer Price Index for All Urban Consumers (CPI-U) and labor costs. FY 2019-2020 fares are shown in Table 2.4. Notably:

- With the exception of cable cars, Muni does not charge different fares for different services.
- Transfers are free within two hours.
- In order to encourage pre-payment and reduce transaction costs, regional Clipper Card and MuniMobile app users receive a 25-cent discount on adult one-way fares.
- Muni offers one-day, three-day, seven-day, and monthly passes. The cost of a monthly "M" pass is equivalent to 30 one-way trips paid using a Clipper Card or MuniMobile, resulting in a substantial bulk discount for regular riders. ("A" passes are also good on BART within San Francisco.)
- Muni offers discounts to youth (age 18 and under), seniors (65 and over), people with disabilities, and clients of nonprofit social service agencies, and the Free Muni Program allows low- and moderate-income youth (age 22 and under), seniors and people with disabilities to ride for free.
- Under the Americans with Disabilities Act (ADA), paratransit fares are allowed to up to twice the fixed route fare. MTA has maintained a commitment to keeping paratransit fares significantly below the allowable maximum. Currently, paratransit fares are indexed to the full fare single ride (pre-paid), and when that fare increases, the paratransit van service will increase to remain equivalent with that fare.

Table 2-4: Muni Fares

FARE DESCRIPTION	PAYMENT METHOD	FY 2019	FY 2020
Full Fare Single Ride (Pre-Paid)	Clipper/MuniMobile	$2.50	$2.50
Full Fare Single Ride (Paid at Boarding)	Farebox/Limited Use Ticket	$2.75	$3.00
Reduced Fare Single Ride (Pre-Paid)	Clipper/MuniMobile	$1.25	$1.25
Reduced Fare Single Ride (Paid at Boarding)	Farebox/Limited Use Ticket	$1.35	$1.50
Lifeline Single Ride Fare (pending approval and development)	Clipper	N/A	$1.25
One-Day Pass (No Cable Car)	MuniMobile	$5.00	$5.00
Adult "M" Monthly Pass	Clipper	$78	$81
Adult "A" Monthly Pass (+ BART within SF)	Clipper	$94	$98
Reduced Fare Monthly Pass	Clipper	$39	$40
Lifeline Monthly Pass	Limited Locations	$39	$40
Cable Car Single Ride	Clipper/On-Board/ MuniMobile/Sales Kiosks/ Third-Party	$7.00	$8.00[1]
Off-Peak Cable Car Fare (Seniors/People with Disabilities) from 9:00 p.m. to 7:00 a.m.	On-Board/ MuniMobile	$3.00	$4.00[1]
One Day Passport (Pre-Paid)	Clipper/MuniMobile	$12	$13[1]
Three Day Passport (Pre-Paid)	Clipper/MuniMobile	$29	$31[1]
Seven Day Passport (Pre-Paid)	Clipper/MuniMobile	$39	$41[1]
One Day Passport	Sales Kiosk/Third-Party	$23	$24[1]
Three Day Passport	Sales Kiosk/Third-Party	$34	$36[1]
Seven Day Passport	Sales Kiosk/Third-Party	$45	$47[1]
Paratransit Van Services	Cash/Pre-Paid Ticket/MuniMobile	$2.50	$2.50
Paratransit Taxi Services	Paratransit Debit Card	$6 ($30 Value)	$6 ($30 Value)

1. *Effective January 1, 2020. All others effective July 1, 2019.*

2.5.2 Interagency Transfers

Muni offers adult passengers transferring from the following agencies a 50-cent discount when Clipper Cards are used:

- AC Transit
- BART
- Caltrain (for travel within Zone 1)
- Golden Gate Ferry
- Golden Gate Transit
- SamTrans
- San Francisco Bay Ferry

Golden Gate Transit and San Francisco Bay Ferry provide reciprocal 50-cent discounts to passengers transferring from Muni. Additionally, passengers transferring to Muni Lines 14R, 28, 28R and 54 from the Daly City BART Station are eligible for up to two free trips within 24 hours.

REVENUE FLEET

Overview

Muni's fleet of rail and bus vehicles is among the most diverse in the world, with light rail vehicles, cable cars, historic streetcars, electric trolley coaches, clean diesel and hybrid electric motor coaches, and paratransit vehicles. Muni is also currently modernizing its rubber-tire and steel-wheel fleets to increase reliability, enhance capacity and reduce emissions (see Chapter 6, Capital Plans and Programs), and the agency now has the newest and greenest transit fleet in North America. Types of vehicles operated by Muni include:

Light Rail Vehicles

There are currently three LRV models in the Muni fleet: Breda LRV2 and LRV3 railcars, which entered into service between 1996 and 2002, and Siemens LRV4 railcars introduced in 2017. Over the next decade all Breda LRV2 and LRV3 cars will be replaced by LRV4 cars, and the LRV fleet will be expanded from 151 to 215 vehicles (see Chapter 6 for additional details).

Vehicle Count as of FY 2019: 185

Cable Cars

A San Francisco icon since 1873, San Francisco's cable cars are a designated National Historic Landmark. There are two models of cable car: smaller, single-ended Powell Street Cable Cars requiring a turnaround at each terminal, and larger, double-ended California Street Cable Cars that can reverse direction using a switch.

Vehicle Count as of FY 2019: 40

Historic Streetcars

Muni's collection of historic streetcars includes President's Conference Committee (PCC) vehicles painted in the historic schemes of different North American operators, Milan Trams and other unique vehicles carrying mostly international livery, and antique vehicles from San Francisco itself.

Vehicle Count as of FY 2019: 41[1]

Electric Trolley Coaches

Muni operates the second-largest fleet of electric trolley coaches powered by overhead wires in North America. San Francisco's trolley coaches are zero-emission vehicles, as they run on power generated by San Francisco's Hetch Hetchy hydropower network. Muni operates both 40- and 60-foot articulated trolley coaches, on 16 different lines.

Vehicle Count as of FY 2019: 213 40-ft trolleys, 93 60-ft trolleys

1 Not including vehicles in storage or long-term rehabilitation.

Motor Coaches

Muni's motor coaches are a combination of renewable clean diesel and diesel electric hybrid vehicles. The workhorses of the fleet, carrying over 40 percent of riders, they come in 32-, 40- and 60-foot varieties.

Vehicle Count as of FY 2019: 385 40-ft motor coaches, 224 60-ft coaches

Paratransit Vehicles

San Francisco Paratransit vans are operated by contractor Transdev. Transdev also operates an additional 11 vehicles owned by non-profits L'Chaim and Stepping Stone, and contracts with non-profits Centro Latino, Self Help for the Elderly, and Kimochi, to operate their own vehicles as part of San Francisco Paratransit's Group Van program.

Vehicle Count as of FY 2019: 130[2]

2 *Not including inactive vehicles*

FACILITIES

Administrative and Operational Facilities

The SFMTA owns and leases a wide variety of facilities and infrastructure. The majority of its 29 facilities are dedicated to the maintenance, fueling, storage, and staging of transit and parking enforcement vehicles. The agency also operates 19 public parking garages and another 19 parking lots. The SFMTA is currently engaged in a Building Progress Program to modernize its yards and facilities.

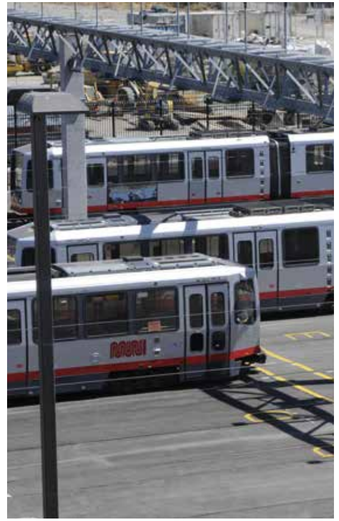
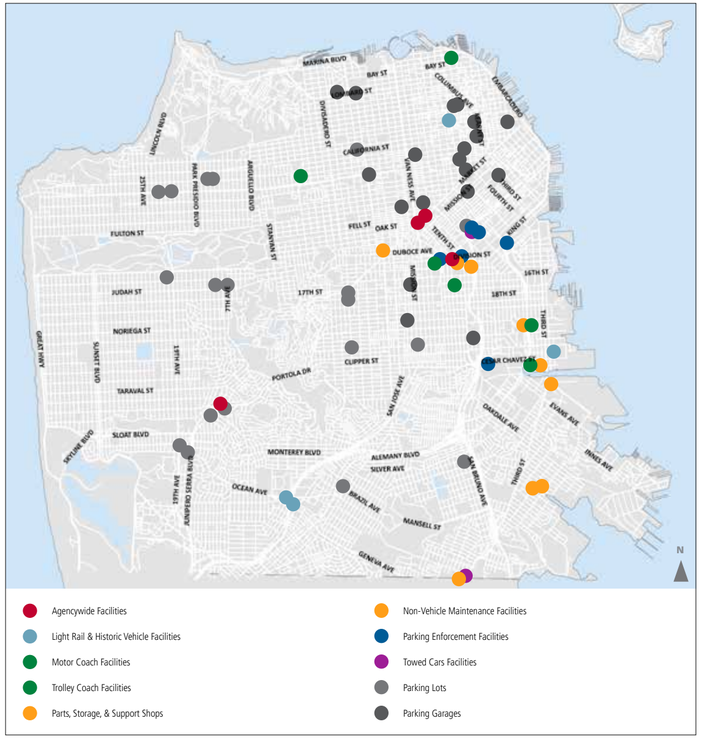


Figure 2-5: Map of SFMTA Facilities



- Agencywide Facilities
- Light Rail & Historic Vehicle Facilities
- Motor Coach Facilities
- Trolley Coach Facilities
- Parts, Storage, & Support Shops
- Non-Vehicle Maintenance Facilities
- Parking Enforcement Facilities
- Towed Cars Facilities
- Parking Lots
- Parking Garages

Table 2-5: List of SFMTA Facilities

FACILITY NAME	LOCATION	YEAR OPEN	SITE OWNERSHIP	FACILITY FUNCTION/ VEHICLE CAPACITY
Agencywide				
SFMTA Headquarters	1 South Van Ness Avenue, Floors 3, 6, 7, and 8	2003	CCSF Owned	Office of the Director of Transportation, Capital Programs & Construction, Communications & Marketing, Finance & Information Technology, Human Resources, Sustainable Streets Planning and Engineering offices, System Safety, Taxis & Accessible Services, Transit Administration and Operations Planning & Schedules offices
Transportation Management Center (TMC)	1455 Market Street	2015	Leased by CCSF on behalf of SFMTA	Transit Operations & Traffic Signal Operations Control Centers
Central Control	131 Lenox Way, West Portal Station	1982	CCSF owned, under jurisdiction of SFMTA	Backup Transit Operations Control Center
Power Control Center	Undisclosed	1977	CCSF owned, under jurisdiction of SFMTA	Central facility to monitor electrical system for all SFMTA operations
Light Rail & Historic				
Cable Car Barn	Mason Street and Washington Street	1887; rebuilt and reopened 1984	CCSF owned, under jurisdiction of SFMTA	40 cable cars
Beach-Geneva Yard	Geneva Avenue, San Jose Avenue, and I-280	1901; acquired by Muni 1944, new building 1986	CCSF owned, under jurisdiction of SFMTA	36 75-ft LRVs; 55 50-ft historic streetcars; and 24 historic streetcars under canopy
Green Division & Green Annex	Geneva Avenue, San Jose Avenue, and I-280	1977 & 1986; acquired by Muni 1944 (former Elkton Shops 1906-1977 and Ocean Bus Division 1948-1975)	CCSF owned, under jurisdiction of SFMTA	91 75-ft LRVs; 25 historic streetcars
Muni Metro East	Cesar Chavez/25th Street and Illinois Street	2008	CCSF owned, under jurisdiction of SFMTA	125 75-ft LRVs
Motor Coach				
Flynn Division	15th Street and Harrison Street	1941; acquired by Muni 1989	CCSF owned, under jurisdiction of SFMTA	125 60-ft Articulated Motor Coaches
Islais Creek	Cesar Chavez Street and Indiana Street	2018	CCSF owned, under jurisdiction of SFMTA	56 40-ft Motor Coaches; 111 60-ft Motor Coaches
Kirkland Yard	North Point Street and Powell Street	1950	CCSF owned, under jurisdiction of SFMTA	132 40-ft Motor Coaches
Woods Division	22nd Street and Indiana Street	1975	CCSF owned, under jurisdiction of SFMTA	30 32-ft Motor Coaches; and 212 40-ft Motor Coaches
Trolley Coach				
Potrero Division	Bryant Street, Mariposa Street, and 17th Street	1914; converted to all trolley coach 1949	CCSF owned, under jurisdiction of SFMTA	25 40-ft Trolley Coaches; 107 60-ft Trolley Coaches
Presidio Division	Geary Boulevard and Presidio Avenue	1912; expanded for trolley coach 1949; became all trolley coach 1957	CCSF owned, under jurisdiction of SFMTA	165 40-ft Trolley Coaches
Parts Storage & Support Shops				
Marin Division	1399 Marin Street	Leased 1990	CCSF owned, under jurisdiction of the Port of San Francisco; MOU with SFMTA	New Bus Acceptance, Track Maintenance, and Storage
700 Penn	700 Pennsylvania Avenue	1900; acquired by Muni 1995 and rebuilt 1995-1999	CCSF owned, under jurisdiction of SFMTA	Technical and Professional Maintenance Shops, Storage, and Administration

FACILITY NAME	LOCATION	YEAR OPEN	SITE OWNERSHIP	FACILITY FUNCTION/ VEHICLE CAPACITY
Scott	15th Street and Division Street	1990	CCSF owned, under jurisdiction of SFMTA	Storage and Maintenance of Non-Revenue Vehicle Fleet
Burke	1570-1580 Burke Avenue	1969; occupied by SFMTA 2005	CCSF owned, under jurisdiction of SFMTA	Central Storage and Future Site of Overhead Lines
Duboce Non-Revenue Track	Duboce, between Market and Church	n/a	CCSF owned, under jurisdiction of DPW, SFMTA Occupied	Temporary Storage of Light Rail Vehicles and Historic Street-cars; Light Maintenance
Non-Vehicle Maintenance				
Overhead Lines	1401 Bryant Street	1893; acquired by Muni 1944	CCSF owned, under jurisdiction of SFMTA	Storage of Parts and Service Vehicles dedicated to Overhead Lines
Sign, Meter, & Temporary Sign Shops	1508 Bancroft Street	2012	CCSF owned, under jurisdiction of SFMTA	Professional and Technical Shops
Paint & Meter Parking	1538 Yosemite Street	1958; occupied by SFMTA 2012	Leased by CCSF on behalf of SFMTA	Paint Shops and SSD Shops' Trucks
Traffic Signal Shop	2650 Bayshore Boulevard	1955; occupied by SFMTA 2013	Leased by CCSF on behalf of SFMTA	Video Shop, Professional and Technical Shop
Parking Enforcement – Parking Control Group				
Parking Enforcement	571 10th Street	Leased 2000	Leased from Caltrans by CCSF on behalf of SFMTA	Storage of 10 GO-4's, 2 passenger vehicles, 4 boot vans & 2 pickup trucks
Parking Enforcement Office	505 7th Street	1920; acquired by SFMTA 2008	Leased by CCSF on behalf of SFMTA	Administration office and storage of 4 passenger vehicles
Parking Enforcement	6th Street and Townsend Street	2002	Leased from Caltrans by CCSF on behalf of SFMTA	Storage of 208 GO-4 vehicles, 18 passenger cars, 1-12 passen-ger van; 1 mobile library type van
Parking Enforcement	2323 Cesar Chavez Street	n/a	SF Public Works; leased by SFMTA	Storage of 43 GO-4's & 2 passenger cars
Parking Enforcement	450 7th Street	n/a	Leased from Caltrans	Storage of 18 passenger cars
Parking Enforcement	Scott Lot (Harrison & 15th)	1990	n/a	Storage of 14 GO-4's
Parking Enforcement – Towed Cars Group				
Towed Cars (short term)	450 7th Street	n/a	Caltrans; leased by SFMTA	Primary Storage of towed abandoned and illegally parked vehicles averaging 300 vehicles during peak times.
Towed Cars (long term)	2650 Bayshore Blvd., Daly City	1955; occupied by SFMTA 2012	Leased by CCSF on behalf of SFMTA	Required to have at least 300 spaces for police tows, 100 of which must be indoors
Parking Garages				
16th & Hoff Garage	42 Hoff Street	1986	CCSF owned, under jurisdiction of SFMTA	98 parking spaces
Civic Center Garage	355 McAllister Street	1958	CCSF owned, under jurisdiction of SFMTA	843 parking spaces
Ellis-O'Farrell Garage	123 O'Farrell Street	1964	CCSF owned, under jurisdiction of SFMTA	950 parking spaces
5th and Mission/Yerba Buena Garage	833 Mission Street	1957	CCSF owned, under jurisdiction of SFMTA	2585 parking spaces
Golden Gateway Garage	250 Clay Street	1965	CCSF owned, under jurisdiction of SFMTA	1095 parking spaces
Japan Center Garage	1610 Geary Boulevard	1965	CCSF owned, under jurisdiction of SFMTA	920 parking spaces
Lombard Garage	2055 Lombard Street	1987	SFUSD owned, site improvements owned by CCSF, under jurisdiction of SF Parking Author-ity, pending transfer to SFMTA	205 parking spaces
Mission-Bartlett Garage	3255 21st Street	1983	CCSF owned, under jurisdiction of SFMTA	350 parking spaces

FACILITY NAME	LOCATION	YEAR OPEN	SITE OWNERSHIP	FACILITY FUNCTION/ VEHICLE CAPACITY
Moscone Center Garage	255 3rd Street	1984	CCSF owned, under jurisdiction of the SF Parking Authority, pending transfer to SFMTA	732 parking spaces
North Beach Garage	735 Vallejo Street	1997	CCSF owned, under jurisdiction of the SF Parking Authority, pending transfer to SFMTA	203 parking spaces
Performing Arts Garage	360 Grove Street	1983	CCSF owned, under jurisdiction of the SF Parking Authority, pending transfer to SFMTA	598 parking spaces
Pierce Street Garage	3252 Pierce Street	1970	CCSF owned, under jurisdiction of SFMTA	116 parking spaces
Polk-Bush Garage	1399 Bush Street	1990	CCSF owned, under jurisdiction of the SF Parking Authority, pending transfer to SFMTA	129 parking spaces
Portsmouth Square Garage	733 Kearny Street	1960	CCSF owned, under jurisdiction of SFMTA	504 parking spaces
San Francisco General Hospital Medical Center Garage	2500 24th Street	1996	CCSF owned, under jurisdiction of the SF Parking Authority, pending transfer to SFMTA	1657 parking spaces
St. Mary's Square Garage	433 Kearny Street	1952	CCSF owned, under jurisdiction of SFMTA	414 parking spaces
Sutter-Stockton Garage	444 Stockton Street	1959	CCSF owned, under jurisdiction of SFMTA	1865 parking spaces
Union Square Garage	333 Post Street	1941	CCSF owned, under jurisdiction of SFMTA	985 parking spaces
Vallejo Street Garage	766 Vallejo Street	1969	CCSF owned, under jurisdiction of SFMTA	163 parking spaces
Parking Lots				
18th Ave./Geary Lot	421 18th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	34 metered spaces
18th St./Collingwood Lot	4116 18th Street	n/a	CCSF owned, under jurisdiction of SFMTA	28 metered spaces
19th Ave./Ocean Lot	3000 19th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	20 metered spaces
20th Ave./Irving Lot	1275 20th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	24 metered spaces
24th St./Noe Lot	4061 24th Street	n/a	CCSF owned, under jurisdiction of SFMTA	16 metered spaces
7th Ave./Irving Lot	1340 7th Avenue	n/a	SFUSD owned, site improvements owned by CCSF, under jurisdiction of SFMTA	36 metered spaces
7th St./Harrison Lot	415 7th Street	n/a	CCSF owned, under jurisdiction of SFMTA	205 metered spaces
8th Ave./Clement Lot	324 8th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	26 metered spaces
9th Ave./Clement Lot	330 9th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	21 metered spaces
9th Ave./Irving Lot	1325 9th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	41 metered spaces
California/Steiner Lot	2450 California Street	n/a	CCSF owned, under jurisdiction of the SF Parking Authority, pending transfer to SFMTA	48 metered spaces
Castro/18th St. Lot	457 Castro Street	n/a	CCSF owned, under jurisdiction of SFMTA	20 metered spaces
Felton/San Bruno Lot	25 Felton Street	n/a	CCSF owned, under jurisdiction of SFMTA	10 metered spaces
Geary/21st Ave. Lot	5732 Geary Boulevard	n/a	CCSF owned, under jurisdiction of SFMTA	21 metered spaces
Lilac/24th St. Lot	1 Lilac Street	n/a	CCSF owned, under jurisdiction of SFMTA	18 metered spaces
Norton/Mission Lot	20 Norton Street	n/a	CCSF owned, under jurisdiction of SFMTA	28 metered spaces
Ocean/Junipero Serra Lot	2500 Ocean Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	20 metered spaces
Ulloa/Claremont Lot	807 Ulloa Street	n/a	CCSF owned, under jurisdiction of SFMTA	23 metered spaces
West Portal/14th Ave. Lot	174 West Portal Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	19 metered spaces

Stations and Stops

In addition to the facilities needed to operate transit service, the SFMTA maintains approximately 3,500 transit stops. Recently, the agency has been improving these stops in a number of ways:

- additional signage and other branding elements at Muni Metro and Rapid bus stops
- transit poles with solar-powered lanterns visible day and night
- redesigned flag signs with additional information
- new bicycle racks at Rapid stops

Table 2.6: Types of Muni Stops

TYPE	LOCATIONS	YEAR IN USE	BASIC AMENITIES
Muni Metro & Rapid Bus			
Surface Rapid Bus Stops	At most surface transit locations in San Francisco in residential, commercial and industrial areas.	2015	SFMTA red "wave" shelter; transit poles outfitted with solar powered lighting; flag signs for route information, intersection names and real-time arrival details; bright red chevron-style decals to signal a Rapid stop; new bicycle racks
Muni Metro Stations	The Muni Metro stations from West Portal to The Embarcadero are underground. The downtown subway stations (between Civic Center and The Embarcadero) are shared by Muni and the Bay Area Rapid Transit District (BART). These stations are multi-level, with a concourse level, a Muni boarding platform at mid-level and a BART platform at the lowest level. With the exception of Forest Hill, all Muni Metro stations were constructed in conjunction with BART and are BART-owned.	1980 (all except Forest Hill); 1918 (Forest Hill)	In the underground stations (Embarcadero, Montgomery, Powell, Civic Center, Van Ness, Church, Castro, Forest Hill and West Portal), a digital voice announcement system announces the route designation and arrival time of approaching and arriving trains. All underground stations are accessible by elevator. Stairs and/or an escalator are located at each end of every downtown station. Digital signs that provide real-time arrival information are available at Metro stations.
T Third Surface Stations	Surface stops along the T Third line on The Embarcadero, King Street, Third Street, and Bayshore Boulevard	1998 (The Embarcadero and King Street stations); 2007 (Third Street and Bayshore Blvd. stations)	All stations were designed in line with the distinctive T Third branding. They are all accessible and equipped with transit shelters with digital signs that provide real-time arrival information.
Other Surface Light Rail Stops	Outside of the Market Street Subway, Twin Peaks Tunnel and Sunset Tunnel, the light rail vehicles operate on the surface.	Varied	In addition to the standard Rapid Network Stop amenities listed above, key surface light rail stops provide ramps to facilitate wheelchair access. On the M Ocean View line, the accessible stop at San Jose and Geneva avenues has a mechanical wayside lift that elevates customers to the level of the train floor for boarding and exiting.
Frequent, Grid, Connector, Specialized			
Transit Stops	At most surface transit locations in San Francisco in residential, commercial and industrial areas.	Varied	Stops with 125 daily boardings have a shelter within environmental constraints. Many shelters are equipped with digital signs that provide real-time arrival information. Many of these shelters also have "push-to-talk" buttons that, when pressed, provide a voice announcement of the arrival times displayed on the digital sign. In 2015, the SFMTA and its partners have also started the installation of transit poles outfitted with solar powered lanterns and flag signs for route information.
Flag Stops	In residential areas and other low traffic locations where Muni will stop in the street rather than pull to the curb	Varied	The bus stop is marked with yellow paint on a nearby pole and in the street where the bus will stop. In 2015, the SFMTA and its partners have also started the installation of transit poles outfitted with solar powered lanterns and flag signs for route information.
Historic			
F Market Historic Street Car Stops	Stops along The Embarcadero and on Market Street between Steuart Street and Castro Street.	1995 (Market Street), 2000 (The Embarcadero)	All include an accessible wayside boarding platform. Between Van Ness Avenue and Steuart Street accessible stops are located at key locations along lower Market Street: wayside platforms at 7th, 3rd and Main streets and Don Chee Way (inbound); wayside platforms are at Don Chee Way, Drumm, Kearny and Hyde streets and Van Ness Avenue (outbound). Accessible lifts are located at inbound stops at Market and Church streets, Market and 5th streets and Market and 1st streets, and at the outbound stop adjacent to Hallidie Plaza.
Cable Car Stops	Placed along the three cable car lines	Varied	Riders can board at any cable car turntable (the beginning/end of each route) or anywhere a cable car sign is posted.

Fixed Guideways

With average weekday ridership of approximately 170,000 boardings, the Muni Metro is the United States' third-busiest light rail system. In addition to its 215 vehicles (as of June 2019), it includes 71.5 miles (115.1 km) of tracks, three tunnels, nine subway stations, 24 surface stations and 87 surface stops.

Muni service operates in a variety of transit-only rights-of-way, ranging from semi-exclusive transit lanes (shared with taxis and in some cases autos and trucks turning right or accessing curbside parking) to center median transitways and off-street rights-of-way, including subways. Recently, many of San Francisco's on-street transit lanes have been colored red to distinguish them from other lanes and increase motorist awareness and compliance with restrictions (see "Muni Forward," Chapter 4).

Figure 2-6: Muni Metro Map

STANDARDS AND POLICIES

STRATEGIC PLAN

Overview

In the next 25 years, the population of San Francisco is projected to increase by over 100,000, to more than one million. Meanwhile, both jobs and housing are projected to grow by 35 percent. To prepare for this growth, as well as projected growth in the surrounding region, the agency developed a Strategic Plan to guide the agency's planning efforts, the prioritization of capital programs and projects, and the development of operating and capital budgets. In so doing, the plan will improve travel choices, reduce congestion, maintain affordability, and keep our infrastructure in good condition.

Strategic plans help align an organization's people, services, projects, processes, resources, and tools. The SFMTA Strategic Plan is defined by a set of terms that outline high-level concepts and aspirations –vision, mission, values, and goals – and actionable strategies – objectives and actions – that can then be incorporated into the everyday work of agency staff. The Strategic Plan also defines how state, regional, and local policies are to be implemented.

As part of every two-year budget cycle, each division of the SFMTA uses the Strategic Plan to prioritize work products, set milestones, and define performance measures. Every Division Director also leads the implementation of at least one strategic objective, creating a link from the plan's broader policies to the day-to-day work of SFMTA staff.

The Strategic Plan was updated in 2018. Since the last plan was developed in 2012, San Francisco has seen major changes in how people get around the city, as well as an economic boom, an influx of new residents and workers, and a shift in what the public expects from city government and the transportation system. In response to these changes, we have refined the vision and mission for our agency and updated our goals and objectives.

The new Strategic Plan is a living document designed to be more flexible and responsive to changes over time. The Strategic Plan is a road map not only for what the agency aims to achieve in the coming years, but also how we will approach our work -- through workplace values of respect, inclusion, and integrity.

Process

Development of the Strategic Plan included internal and external stakeholders in a variety of outreach processes:

- Staff engagement at all levels of the agency, including workshops in multiple formats and participatory exercises related to each new element of the strategic plan.
- Identification of best practices through researching peer transit agency strategic plans.
- Compilation of external stakeholder interests and recommendations, as well as discussions with the SFMTA Board of Directors and the Citizen's Advisory Council.

Implementation and Evaluation

Following adoption of the last Strategic Plan in 2012, the city recorded the lowest number of traffic deaths in its history and maintained 50 percent or higher non-private auto mode share, while the SFMTA improved customer

satisfaction to its highest level since 2001 and replaced nearly the entire transit vehicle fleet.

The SFMTA Strategic Plan includes updated goals, objectives, performance metrics and targets designed to serve as the basis for ongoing, transparent reporting on agency achievements. The SFMTA's progress in implementing the latest Strategic Plan can be tracked by viewing the interactive performance metric "dashboards" on the agency website, as well as monthly Strategic Plan Progress Reports.

As part of this Strategic Plan, plan elements will be reviewed every two years, in alignment with the agency's budget cycle, to ensure that the agency continues to serve the constantly evolving city and region. As part of this process, an updated list of actions, policies, and processes will be developed, taking into account the progress made in the interim toward meeting each Strategic Plan objective. These initiatives and actions, in turn, will inform the divisional and individual work plans for each section of the agency. This process will ensure accountability at all levels.

In addition to developing biannual staff work plans to implement the Strategic Plan, SFMTA staff will assess each decision brought to the SFMTA Board for conformance with the Strategic Plan. All summaries of actions proposed to the SFMTA Board are required to include a description of how the project, policy, or contract directly advances the goals of the Strategic Plan, and of the impact of the proposed action on progress toward the Strategic Plan's targets.

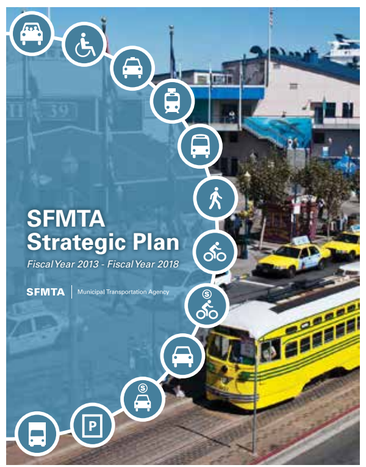
For a complete discussion of the FY 2013 – FY 2018 SFMTA Strategic Plan, visit: http://www.sfmta.com/about-sfmta/sfmta-strategic-plan.

Elements

Vision and Mission Statement

Vision statements define the desired future state of an organization, and mission statements describe the organization's overall purpose and function. The SFMTA's Vision Statement has been refined from the last Strategic Plan to focus on the diverse transportation options available within San Francisco, while the Mission Statement has been modified to emphasize the agency's core purpose, rather than list the specific job duties its staff fulfils on a day-to-day basis.

The intent and meaning of the agency's current Vision and Mission statements remain consistent with those established in the last plan. They resonate with staff across the agency, and are consistent with the expectations of agency stakeholders. Taken together, they set a path for the agency.



Vision Statement

Excellent transportation choices for San Francisco.

Mission Statement

We connect San Francisco through a safe, equitable, and sustainable transportation system.

Workplace Values

A clear set of values aligned with the overall vision and mission are critical to the successful achievement of the strategic goals.

The Workplace Values identified in the SFMTA Strategic Plan not only support what the agency strives to accomplish, but establish how staff will work together to accomplish the goals and objectives in the Strategic Plan. They guide everyday interactions amongst colleagues, actions during public outreach and engagement processes, and actions throughout agency functions such as hiring, performance management, and employee recognition programs. The values influence communications, major agency decisions, and investments in infrastructure.

The development of the new Strategic Plan gave the SFMTA the opportunity to reinvigorate the agency's workplace values to make them more useful for staff, improve the culture of the agency, and ultimately provide the public with better service.

As the transportation agency for one of the most vibrant and progressive cities in the world, our values reflect the city we serve. We commit to upholding these values:

Respect

We are courteous and constructive in our treatment of others. We recognize our colleagues and their contributions are vital to the agency. We listen and directly engage our colleagues and the public to understand their needs and deliver effective services.

Inclusivity

We seek a variety of identities, abilities, and interaction styles to promote a diverse and fair workplace. We operate from the context of teamwork and positive intent. We serve the public and address historic inequities in transportation by including all communities in the agency's decision-making processes.

Integrity

We are accountable for and take ownership of our actions. We are responsive and honor our commitments to our colleagues and stakeholders. We are transparent and honest in everything we do, from internal operations to external delivery.

Goals and Objectives

Goal 1: Create a safer transportation experience for everyone.

Safety is the agency's first priority. There is no greater need than ensuring the safety and security of the system's users and the general public. Delivering a safer transportation experience requires coordination of the agency's personnel and resources across the city, as well as maintaining a consistent, reliable, and safe transportation network with agency partners.

- Objective 1.1: Achieve Vision Zero by eliminating all traffic deaths.
- Objective 1.2: Improve the safety of the transit system.
- Objective 1.3: Improve security for transportation system users.

Goal 2: Make transit and other sustainable modes of transportation the most attractive and preferred means of travel.

The SFMTA is committed to fostering an urban environment where sustainable modes of travel are desirable, accessible, and preferred over operating a private vehicle. In line with the city's Transit First Policy, the agency will continue to work on its ongoing service enhancements and multimodal infrastructure improvements across the city.

- Objective 2.1: Improve transit service.
- Objective 2.2: Enhance and expand use of the city's sustainable modes of transportation.
- Objective 2.3: Manage congestion and parking demand to support the Transit-First Policy.

Goal 3: Improve the quality of life and environment in San Francisco and the region.

Through implementation of this goal, not only will the SFMTA strive to make a positive impact in people's lives in the near-term, but also ensure the continued development of a more equitable and sustainable San Francisco in the long-term.

- Objective 3.1: Use Agency programs and policies to advance San Francisco's commitment to equity.
- Objective 3.2: Advance policies and decisions in support of sustainable transportation and land use principles.
- Objective 3.3: Guide emerging mobility services so that they are consistent with sustainable transportation principles.
- Objective 3.4: Provide environmental stewardship to improve air quality, enhance resource efficiency, and address climate change.
- Objective 3.5: Achieve financial stability for the agency.

Goal 4: Create a workplace that delivers outstanding service.

Investing in the SFMTA workforce is a critical element to the overall achievement of the agency's goals and objectives. When staff have the resources and tools to succeed, they can become more efficient, effective, and prepared to deliver services in support of all agency goals and objectives.

- Objective 4.1: Strengthen morale and wellness through enhanced employee engagement, support, and development.
- Objective 4.2: Improve the safety, security, and functionality of SFMTA work environments.
- Objective 4.3: Enhance customer service, public outreach, and engagement.
- Objective 4.4: Create a more diverse and inclusive workforce.
- Objective 4.5: Increase the efficiency and effectiveness of business processes and project delivery through the implementation of best practices.

PERFORMANCE MEASURES

Overview

The SFMTA has developed a comprehensive list of performance measures including: City Charter mandates, Strategic Plan Performance Metrics; and measures required by the regional Transit Sustainability Project.

Charter Service Standards

Under the City and County of San Francisco Charter, Sec. 8A.103, Service Standards and Accountability, the SFMTA is required to meet the following minimum standards for transit service:

- On-time performance: at least 85 percent of vehicles must run on-time, where a vehicle is considered on-time if it is no more than one minute early or four minutes late as measured against a published schedule that includes time points; and
- Service delivery: 98.5 percent of scheduled service hours must be delivered, and at least 98.5 percent of scheduled vehicles must begin service at the scheduled time.

The City Charter also stipulates that the SFMTA Board of Directors adopt standards for system reliability, system performance, staffing performance, customer service, and sustainability.

In addition, the City Charter requires that an independent auditor review performance data every two years to ensure that it is being accurately collected and reported, and make recommendations for improved reporting. Based in part on recommendations from the audit, the SFMTA will periodically make proposed revisions to performance metrics and their targets for the consideration of the Board of Directors' Policy and Governance Committee, or PAG (see below).

Strategic Plan Performance Metrics

Both performance metrics and specific targets were established in the Strategic Plan, and form the basis for our ongoing, transparent reporting on agency performance. The SFMTA's progress in implementing the Strategic Plan can be tracked by viewing the interactive performance metric dashboards on the agency website, as well as monthly Strategic Plan Progress Reports.

Monthly progress reports are made to the SFMTA Board's Policy and Governance Committee (PAG). These meetings give agency staff, PAG members and the public an opportunity to review and discuss agency performance. The SFMTA also reports on these indicators in its Annual Report.

For more information and monthly data reports on all agency performance measures, visit the SFMTA's performance webpage: http://www.sfmta.com/performance

The current SFMTA Annual Report is available online: http://www.sfmta.com/annualreport.

Table 3-1: Strategic Plan Performance Metrics and Targets

PERFORMANCE METRIC	FY 2019 & FY 2020 TARGETS	CALENDAR YEAR 2017 BASELINE
SAFETY		
Goal 1: Create a safer transportation experience for everyone.		
Objective 1.1: Achieve Vision Zero by eliminating all traffic deaths		
Traffic fatalities	Eliminate traffic fatalities to achieve San Francisco's Vision Zero goal	20 fatalities
Objective 1.2: Improve the safety of the transit system.		
Muni collisions per 100,000 miles Achieve 5% decrease per year over FY17 baseline 6.8 collisions per	Achieve 5% decrease per year over FY17 baseline	6.8 collisions per 100,000 miles
Objective 1.3: Improve security for transportation system users.		
Customer rating: Feeling safe and secure on Muni	Achieve 2% increase per year over FY17 baseline	Vehicle: 60% rating of good or excellent Stop: 59% rating of good or excellent
SFPD-reported Muni-related crimes per 100,000 miles	Achieve 5% decrease per year over FY17 baseline	4.6 crimes per 100,000 miles
TRAVEL CHOICES		
Goal 2: Make transit and other sustainable modes of transportation the most attractive and preferred means of travel.		
Objective 2.1: Improve transit service.		
Percentage of Muni trips with service gaps	Achieve decrease in gaps over FY18 baseline	Establishing baseline
Muni on-time performance	Achieve 85% on-time performance in accordance with City Charter	57% on-time performance
Percentage of scheduled Muni service hours delivered	Achieve 98.5% service delivery in accordance with City Charter	98.9% of scheduled service hours delivered
Percentage of Muni bus trips over capacity during AM/PM peak	Decrease crowding over FY18 baseline	Inbound AM Peak: 14.6% trips over capacity (FY18) Outbound PM Peak: 15.8% trips over capacity (FY18)
Operational availability of elevators & escalators at Muni stations	Achieve 98% operational availability of elevators and 97% operational availability of escalators	Escalators: 91.4% availability Elevators: 97.0% availability
Muni mean distance between failure	Achieve 10,000 MDBF for Motor Coach, 6,000 MDBF for Trolley Coach, 5,300 and 5,500 MDBF for LRV (Breda) in FY19 and FY20, 25,000 for LRV (Siemens), 2,700 and 2,900 MDBF for Historic Streetcar in FY19 and FY20	Motor Coach: 5,871 MDBF Trolley Coach: 3,731 MDBF LRV: 5,218 MDBF Historic Streetcar: 2,865 MDBF
Percentage of cable service hours delivered without interruption	Achieve 99.5% of hours delivered without interruption	99.5% of hours delivered without interruption
Objective 2.2: Enhance and expand use of the city's sustainable modes of transportation.		
Muni ridership (average weekday; annual total)	Achieve 2% growth in FY19 and 5% growth in FY20 in total annual ridership and average weekday boardings over FY17 baseline	Average Weekday: 714,910 Total Annual: 225,786,174
Sustainable transportation mode share	Achieve 58% sustainable transportation mode share in FY19	54% sustainable mode share
Average weekday taxi trips	Maintain FY17 average weekday trips in FY19 and FY20	8,266 trips
Average weekday bicycle counts	Establish FY17 baseline and increase bicycle trips	Establishing baseline
Customer rating: Overall customer satisfaction with Muni	Achieve 2% increase per year over FY17 baseline	70% rating of good or excellent
Objective 2.3: Manage congestion and parking demand to support the Transit First policy.		
Muni average travel time on key transit segments	Reduce travel time on key transit segments	Establishing baseline
Percentage of metered hours that meet parking occupancy targets	Achieve 35% of parking targets in FY19 and 40% of parking targets in FY20	Establishing baseline

PERFORMANCE METRIC	FY 2019 & FY 2020 TARGETS	CALENDAR YEAR 2017 BASELINE
LIVABILITY		
Goal 3: Improve the quality of life and environment in San Francisco and the region.		
Objective 3.1: Use Agency programs and policies to advance San Francisco's commitment to equity.		
Percentage of eligible population utilizing free or discounted Muni fare programs	Achieve 4% per year increase over FY17 baseline for Free Muni programs and 2% per year increase over FY17 baseline for Lifeline	Youth: 62% enrolled, 36% active use Seniors: 85% enrolled, 57% active use People with Disabilities: 42% enrolled, 29% active use Lifeline: 26% enrolled, 11% active use
Traffic fatalities in Communities of Concern	Eliminate traffic fatalities in Communities of Concern to achieve San Francisco's Vision Zero goal	8 fatalities in Communities of Concern
Muni service gap differential on routes identified in the Muni Equity Strategy	Eliminate service gap differential on Equity Strategy routes	1.12% service gap differential
Paratransit on-time performance	Achieve 1% increase per year over FY17 baseline	85% on-time performance
Customer rating: Overall customer satisfaction with paratransit services	Achieve 85% customer satisfaction rating in FY19 and FY20	83% rating of good or excellent
Percentage of contract dollars awarded to Local Business Enterprises (LBEs) and Disadvantaged Business Enterprises (DBEs)	Achieve 40% of contracts awarded to LBEs and 15% awarded to DBEs in accordance with Federal guidance	LBEs: 64.3% DBEs: 19.2%
Objective 3.2: Advance policies and decisions in support of sustainable transportation and land use principles		
Ratio of parking spaces to units for newly entitled projects	Establish FY17 baseline and decrease ratio in FY19 and FY20	Establishing baseline
Objective 3.3: Guide emerging mobility services so that they are consistent with sustainable transportation principles.		
Number of trips using Emerging Mobility Services (EMS)	Establish FY17 baseline and monitor trip growth	Establishing baseline
EMS collisions per 100,000 miles	Establish FY17 baseline and decrease rate	Establishing baseline
Percentage of EMS trips provided to and from Communities of Concern	Establish FY17 baseline and increase percentage	Establishing baseline
Number of EMS trips provided to people with disabilities	Establish FY17 baseline and increase trips	Establishing baseline
Agency waste diversion rate	Achieve 100% waste diversion in FY20 in accordance with San Francisco's Zero Waste goal	33% waste diversion
Transportation sector carbon footprint (metric tons CO2e)	Decrease carbon emissions by 3-5% annually in alignment with the San Francisco's climate goals	Establishing baseline
Agency resource consumption	Maintain electricity usage from FY17 baseline; maintain 10-year average of natural gas usage, decrease water usage by 33% in FY20 over FY17 baseline	Electricity: 10,000,000 monthly average Natural Gas: 24,000 monthly average Water: 1,400,000 monthly average
Objective 3.5: Achieve financial stability for the agency		
Agency fund balance ratio	Maintain ratio at or above 12.5% each year	18.3%
Year-end investment toward State of Good Repair	Maintain investment at or above $250,000,00 in alignment with Federal goal	Funds Allocated: $278,811,000 Funds Spent: $338,355,000
Muni cost per revenue hour	Maintain FY17 baseline with inflation and labor cost indexing	$220.39
Muni cost per unlinked trip	Maintain FY17 baseline with inflation and labor cost indexing	$3.54
Muni farebox recovery ratio	Maintain historical average of 3-year baseline	24.5%
Muni cost recovery ratio	Maintain at least 100% funding of Muni operating costs using dedicated revenue sources	101%

PERFORMANCE METRIC	FY 2019 & FY 2020 TARGETS	CALENDAR YEAR 2017 BASELINE
SERVICE		
Goal 4: Create a workplace that delivers outstanding service		
Objective 4.1: Strengthen morale and wellness through enhanced employee engagement, support, and development.		
Employee unscheduled absence rate	Establish baseline and decrease unscheduled absence rate	Establishing baseline
Employee rating: Overall employee satisfaction	Achieve 2% increase per year over FY17 baseline	53% rating of somewhat or very satisfied
Employee wellness program utilization rate	Increase wellness program utilization rate to 23% in FY19 and 25% in FY20	19.6% utilization
Objective 4.2: Improve the safety, security, and functionality of SFMTA work environments.		
Security incidents involving SFMTA employees	Achieve 5% decrease per year over FY17 baseline	12.7 average monthly security incidents
Workplace injuries per 200,000 hours	Reduce injury rate to 12.2 in FY19 and 12.0 in FY20	12.4 injuries per 200,000 hours
Objective 4.3: Enhance customer service, public outreach, and engagement.		
Muni employee commendations to 311	Achieve 3% increase per year over FY17 baseline	195 commendations
Muni customer complaints per 100,000 miles	Achieve 3% decrease per year over 5-year historical average	74.8 complaints per 100,000 miles
Percentage of Muni customers responded to within timeliness standards	Achieve 90% response rate within timeliness standards in FY19 and FY20	20.9% response within timeliness standards
Percentage of Muni Passenger Service Reports addressed within timeliness standards	Achieve 80% addressed rate within timeliness standards in FY19 and FY20	64.4% addressed within timeliness standards
Percentage of streets-related customer requests addressed within timeliness standards	Address 90% of Color Curb Requests, 92% of Hazardous Traffic Signal Reports, 80% of Traffic and Parking Control Requests, 100% of Hazardous Traffic Sign Reports, and 90% of Parking Meter Malfunction Reports within timeliness standards in FY19 and FY20	Color Curb Requests: 95.8% Hazardous Traffic Signal Reports: 97.9% Traffic and Parking Control Requests: 82.1% Hazardous Traffic Sign Reports: 100% Parking Meter Malfunction Reports: 91.2%
Community rating: Feeling of being informed about SFMTA projects	Establish baseline and improve community rating	Establishing baseline (FY19)
Customer rating: Muni communication with riders	Achieve 3% increase per year over FY17 baseline	54% rating of good or excellent
Objective 4.4: Create a more diverse and inclusive workforce.		
Employee rating: I feel that the Agency values workplace diversity	Achieve 2% increase per year over FY17 baseline	55% rating of somewhat or strongly agree
Employee rating: My concerns, questions, and suggestions are welcomed and acted upon quickly and appropriately	Achieve 2% increase per year over FY17 baseline	38% rating of somewhat or strongly agree
Objective 4.5: Increase the efficiency and effectiveness of business processes and project delivery through the implementation of best practices.		
Percentage of capital projects initiated/completed on time	Achieve 85% on schedule initiation rate and 75% on schedule completion rate in FY19 and FY20	Establishing baseline
Percentage of capital projects completed within budget	Complete 75% of projects within budget in FY19 and FY20	Establishing baseline
Service critical operations and maintenance staff vacancy rate	Reduce vacancy rate to 5.4% in FY19 and 5% in FY20	5.8%
Percentage of sign and meter work orders completed within timeliness standards	Achieve 80% completion rates within timeliness standards in FY19 and FY20	Establishing baseline

Transit Sustainability Project

Established by the Metropolitan Transportation Commission's (MTC) Resolution 4060 in 2012, the Transit Sustainability Project (TSP) was developed to focus on the financial health, service performance, and institutional frameworks of the San Francisco Bay Area's transit operators. Given the significant projected capital and operating budget shortfalls, the need to improve transit performance, and interest in attracting new riders to the system, the MTC formed a steering committee to guide the TSP processes and recommendations. Made up of representatives from transit agencies, government bodies, labor organizations, businesses, and environmental and equity stakeholders, this group developed performance measures and investment recommendations for the Bay Area's transit operators.

Within the framework of the Transit Sustainability Project, the seven largest transit agencies in the Bay Area were asked to achieve a 5 percent real reduction in at least one of the following performance measures by Fiscal Year (FY) 2017, with no growth beyond that of the Consumer Price Index (CPI) thereafter:

- Cost Per Service Hour
- Cost Per Passenger
- Cost Per Passenger Mile

For these measures, the baseline year is set at the highest cost year between FY 2008 and FY 2011. The MTC also has developed the following structured annual monitoring process for the seven largest transit operators in the Bay Area. The SFMTA regularly reports on its good-faith efforts to meet one or more of the TSP Cost Reduction Metrics as the Productivity Improvement Project (PIP) for SFMTA as required under State law. The report also describes the major initiatives that the agency is taking to increase ridership and/or contain operating costs, including Muni Forward, identifying new revenue sources to implement transportation improvements throughout the city and through labor negotiations.

Monitoring & Achieving Transit Sustainability Project Targets

In order to achieve the TSP targets, the SFMTA must lower inflation-adjusted costs in relation to revenue vehicle hours, passenger miles, and/or unlinked trips. Costs can still increase but not as quickly as the increase in vehicle hours, passenger miles or unlinked trips.

Although the SFMTA has not yet achieved a major reduction in Cost per Passenger Mile or Passenger Trip, we are pleased with our ability to continue delivering historic levels of Revenue Service Hours while keeping operating costs relatively low. Contributing to this success has been the improved mechanical performance of our Muni fleet – particularly among motor and trolley coaches. Our vendor managed inventory (VMI) model for maintaining vehicle parts inventories has played a major role, resulting in reduced vehicle breakdowns and increased daily vehicle availability. This has enabled us to deliver a high percentage of scheduled transit service while keeping vehicles on the street and in operation longer. In all, we've reduced the number of service hours lost to delay or interruptions by more than 30 percent over FY 2016.

Despite this success, the SFMTA does not anticipate that inflation-adjusted unit operating costs will decrease over the long term. As San Francisco's population and employment grow, the demand for public transportation will increase and will require additional investments. In addition, we continue to address the long-standing structural deficit in state-of-good-repair needs and other areas such as safety, improved communications with the public, and technology enhancements.

The SFMTA's Transit Division currently has numerous initiatives underway intended to improve service reliability, reduce costs and increase ridership. These include:

Fleet Modernization and Expansion

The average age of Muni buses and trains has been reduced significantly in recent years – particularly that of our fleet of electric trolley buses, nearly all of which have been purchased since 2013, and our fleet of light rail vehicles. Our new Siemens LRV4 railcars will be more reliable than the Breda cars we are now in the process of retiring. With new trains arriving in phases over roughly the next 10 years, Muni will replace its fleet of 151 light rail vehicles and expand it by 68. This new, more reliable generation of light rail vehicles will go 10 times longer without requiring maintenance than the old trains.

Building Progress Program

Over the last several years, the SFMTA has made historic investments to replace and expand our aging Muni fleet. While those investments have begun and continue to pay off through improved vehicle reliability, the facilities supporting them are old, outdated and over-capacity. In the coming years, the SFMTA's Building Progress Program will rebuild and upgrade Muni's outdated facilities, including the 100-year old Potrero and Presidio yards, creating vastly improved and modern maintenance facilities that will support Muni's environmentally sustainable fleet plans. These projects are critical to stabilizing Muni's infrastructure to keep vehicles on the road and in a state of good repair.

Transit Speed and Reliability Improvements

We are working to improve speed and reliability in our busiest corridors in a variety of ways. The Muni Forward program, now in its fifth year, has made transit-priority improvements to more than 50 miles of city streets. The Van Ness Improvement Project and Geary Rapid Project will bring bus rapid transit service to those corridors, while the Central Subway project, now nearing completion, will extend rail service to some of the densest and fastest-growing areas of the city.

90-Day Transit Service Action Plan Initiatives

In Fall 2018, the SFMTA Transit Division began developing 90-Day Action Plans for improvements to fixed-route service. At the conclusion of each 90-day period, we report out on performance in areas including service reliability. We then develop and proceed to the next plan. Along with Safety, the current 90-Day Action Plan includes the following initiatives, each associated a number of specific actions:

- **Service Reliability** – Improve reliability of transit service to ensure passengers are provided with the service they expect
- **Subway Performance** – Reduce major delays in the subway and enhance the customer experience during delays
- **LRV4** – Ensure that benefits of the new light rail vehicle fleet are realized, and project delivery is on track
- **Chase Center** – Operationalize service plan and implement for Chase Center opening

Local Funding Support for Transportation

In early 2017 Mayor Ed Lee and the Board of Supervisors created the Transportation 2045 Task Force (T2045) to identify additional transportation funding needs and gaps in resources and potential revenue options to close those gaps. In January 2018 the task force released its final report, which offered a menu of options that could help close the gap, including new revenue sources for both immediate and long-term funding needs. This month the San Francisco Board of Supervisors approved placing on the November 2019 ballot a Traffic Congestion Mitigation Tax. The measure would place a tax on the fares paid to Transportation Network Companies/ and similar transportation companies~-for rides within San Francisco. If approved, the revenue will fund transportation operations and infrastructure for traffic congestion mitigation in the City.

POLICIES

Transit-First Policy

San Francisco's "Transit-First Policy" is Section 8A.115 of the San Francisco Charter. Originally adopted by the Board of Supervisors in 1973, it was amended by voters in 2007, and continues to guide SFMTA decision-making processes. It reads as follows:

(a) The following principles shall constitute the City and County's transit-first policy and shall be incorporated into the General Plan of the City and County. All officers, boards, commissions, and departments shall implement these principles in conducting the City and County's affairs:

1. To ensure quality of life and economic health in San Francisco, the primary objective of the transportation system must be the safe and efficient movement of people and goods.
2. Public transit, including taxis and vanpools, is an economically and environmentally sound alternative to transportation by individual automobiles. Within San Francisco, travel by public transit, by bicycle and on foot must be an attractive alternative to travel by private automobile.
3. Decisions regarding the use of limited public street and sidewalk space shall encourage the use of public rights of way by pedestrians, bicyclists, and public transit, and shall strive to reduce traffic and improve public health and safety.
4. Transit-priority improvements, such as designated transit lanes and streets and improved signalization, shall be made to expedite the movement of public transit vehicles (including taxis and vanpools) and to improve pedestrian safety.
5. Pedestrian areas shall be enhanced wherever possible to improve the safety and comfort of pedestrians and to encourage travel by foot.
6. Bicycling shall be promoted by encouraging safe streets for riding, convenient access to transit, bicycle lanes, and secure bicycle parking.
7. Parking policies for areas well served by public transit shall be designed to encourage travel by public transit and alternative transportation.
8. New transportation investment should be allocated to meet the demand for public transit generated by new public and private commercial and residential developments.
9. The ability of the City and County to reduce traffic congestion depends on the adequacy of regional public transportation. The City and County shall promote the use of regional mass transit and the continued development of an integrated, reliable, regional public transportation system.
10. The City and County shall encourage innovative solutions to meet public transportation needs wherever possible and where the provision of such service will not adversely affect the service provided by the Municipal Railway.

(b) The City may not require or permit off-street parking spaces for any privately-owned structure or use in excess of the number that City law would have allowed for the structure or use on July 1, 2007 unless the additional spaces are approved by a four-fifths vote of the Board of Supervisors. The Board of Supervisors may reduce the maximum parking required or permitted by this section.

Service Equity Policy

In 2014, the SFMTA Board of Directors adopted a Service Equity Policy requiring a Muni Service Equity Strategy to be developed every two years. The Service Equity Strategy is focused on improving transit performance in neighborhoods with high percentages of households with low incomes, people of color, seniors and persons with disabilities. The most recent strategy was adopted in 2018.

The 2018 Service Equity Strategy identified eight Equity Neighborhoods:

- Chinatown
- Western Addition
- Tenderloin/SOMA
- Mission
- Bayview
- Visitacion Valley
- Outer Mission/Excelsior
- Oceanview/Ingleside

The Service Equity Policy's overarching objective is to ensure that Equity Neighborhoods see improvement equal to or better than the system as a whole. Toward that end, and based on extensive outreach to the eight neighborhoods, the 2018 Service Equity Strategy recommended a series of improvements to routes serving the neighborhoods.

While the Service Equity Policy and Strategy are emblematic of the SFMTA's commitment to equity, it should be noted that the agency strives to incorporate equity concerns into all of its service planning and delivery efforts.

Vision Zero

In 2014, the SFMTA Board of Directors adopted a resolution of support for Vision Zero, the City's effort to eliminate all traffic fatalities by 2024. The SFMTA has subsequently served as a lead agency on Vision Zero implementation efforts most recently described in the Vision Zero San Francisco Two-Year Action Strategy 2017-2018.

SYSTEM OVERVIEW AND EVALUATION

FIXED-ROUTE SYSTEM

Overview

The Muni system was introduced in Chapter 2, Introduction to the SFMTA and Muni. In this section, it is further described, in order to provide a foundation for the following section, Performance.

Network Structure

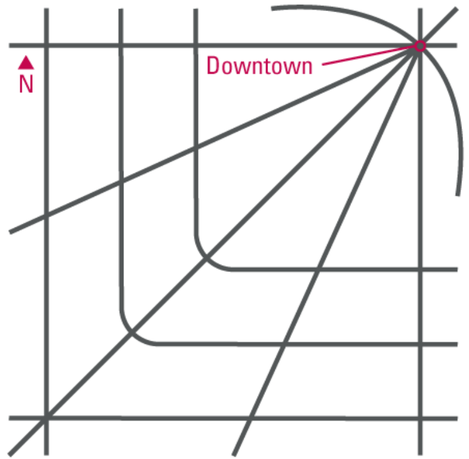
While some Muni lines have remained unchanged or nearly unchanged for more than a century, the route network was extensively redesigned in the 1980s, and a number of changes have been made more recently as part of the Muni Forward program described in the following pages.

As currently configured, the network is designed to facilitate:

- Access – All residential neighborhoods are within one-quarter of a mile of transit stop, helping to ensure equity in service provision
- Higher levels of service (shorter waits and longer hours) in high-demand corridors
- Direct paths between origins and destinations
- Travel anywhere in the city requiring no more than one transfer between lines
- Both radial (oriented toward downtown) and crosstown travel
- Connections to regional transit, such as BART

The basic structure of the network is illustrated in the accompanying diagram. Because San Francisco's densest residential and commercial districts are in the northeastern corner of the city, radial lines "fan out" from the northeast toward the west, southwest and south. Many crosstown lines, meanwhile, are L-shaped (both north-south and east-west). The result is a modified grid structure facilitating convenient "in-direction" transfers.

Figure 4-1: Diagram of Network Structure



Service Standards

In addition to the policies described in the previous chapter, including the Service Equity Policy, the SFMTA designs and operates Muni service based on standards developed in response to development patterns, customer needs, system performance, and Proposition E mandates.

Coverage

All residential neighborhoods should be within one-quarter mile of a Muni stop.

Vehicle Assignment

Technical criteria for vehicle assignment include peak load factors, route type, physical route characteristics such as street widths and grades, required headways, vehicle availability and transit operator availability. In assigning vehicles, the SFMTA also seeks to prevent discrimination to minority and low-income communities.

On-Time Performance

This standard was mandated by Proposition E, which is now part of the City Charter. On-time performance on more frequent routes is measured based on headway adherence, while on-time performance on less frequent routes is measured based on schedule adherence.

Table 4-1: On-Time Performance Definitions and Standards

ROUTE TYPE	DEFINITION	OTP STANDARD
Muni Metro & Rapid Bus and Frequent	% of trips with a service gap of five minutes above the scheduled headway	Less than 14% of trips with a service gap
All others	% of time points served within one minute early to four minutes late of the scheduled time	85% on-time (schedule adherence)

Service Span

Minimum hours of operation are determined based on service category.

Table 4-2: Service Span Standards

ROUTE TYPE	SERVICE SPAN STANDARD
Muni Metro & Rapid Bus, Frequent and Grid	18 hours*
Owl	Late night service, generally between 1-5 a.m. (minimum 30-minute headways)
All others	Based on demand

* Rapid routes are replaced by local service in the evening

Policy Headways

Similarly, minimum headways during different time periods are determined based on service category.

Table 4-3: Policy Headway Standards

ROUTE TYPE	DAY	EVENING	LATE NIGHT
Weekday			
Muni Metro & Rapid Bus and Frequent	10	15*	20*
Grid	20	20	30
Connector	30	30	--
All others	Based on demand		
Weekend			
Muni Metro & Rapid Bus	12	15*	20*
Frequent	20	20	30
Connector	30	30	--
All others	Based on demand		

* Rapid routes are replaced by local service in the evening

Transit Shelter Installation

To the extent location and distribution of a particular transit amenity is within the control of the SFMTA, it is agency policy that amenities are distributed throughout the transit system so that all customers have equal access to these amenities, without regard to race, color, or national origin. The SFMTA has approximately 1,100 transit shelters distributed at transit stops throughout the Muni service area. To the extent possible, it is the SFMTA's policy to provide transit shelters system-wide to ensure that all customers benefit equally from their placement, with a goal of having shelters at all stops with more than 125 boardings per day. While the SFMTA can initiate the process to request new shelters, including providing supporting information, final siting approval resides with the City's Department of Public Works (DPW), which must issue an encroachment permit for installation.

Stop Spacing

Guidelines for distances between stops were developed taking into account the different block lengths and grades on San Francisco streets. Placement of stops is based on a range of factors, including adjacent land uses, transfer opportunities, transit operations and site constraints. However, the stop spacing standards provide a basis for further analysis of optimum stop locations.

Table 4-4: Stop Spacing Standards

VEHICLE TYPE	STOP SPACING STANDARD
Rail (surface)	Approximately 900 to 1,500 feet
Rapid Bus	Case-by-case, based on transfer points, adjacent land uses and usage
Local Bus	Approximately 800 to 1,360 feet on grades less than or equal to 10%; stops may be as close as 500 feet on grades over 10%
Specialized	Case-by-case

Passenger Loads

Standards for passenger loads use the planning capacity (for rail vehicles), or the average maximum load (for buses), and the crowding capacity. The planning capacity/average maximum load is used to schedule service and is compared to the average number of passengers passing through the most crowded point of a route over a 30- or 60-minute interval. The crowding capacity is used to measure the percent of transit trips where crowding is experienced. In addition to these two capacities, the load factor, which is the ratio of total passengers to seats, is also used. Industry standards typically use load factor standards between 1.0 and 1.6 for vehicles designed for mostly seated passengers (i.e. typical buses).

For the bus fleet, the SFMTA aims for load factors in the range of 1.4-1.6. For the rail fleet, since most of the rail fleet is designed for mostly standing passengers, the Agency considers higher load factors to be more acceptable.

Rail

As part of the 2019 update to the SFMTA's Rail Fleet Management Plan, the guidelines for evaluating passenger loads on rail vehicles have been revised. The planning capacity is calculated using 3.7 square feet per standing passenger and is assumed to provide a balance between passenger comfort and vehicle capacity. This crowding capacity is calculated assuming 2.7 square feet per standing passenger and assumes moving to and from doorways to be extremely difficult.

Table 4-5: Passenger Load Standards – Rail

VEHICLE TYPE	PLANNING CAPACITY		CROWDING CAPACITY	
	TOTAL PASSENGERS	LOAD FACTOR	TOTAL PASSENGERS	LOAD FACTOR
Light Rail Vehicle	139	2.3	168	2.8
Streetcar	69	2.1	82	2.5
Cable Car (Powell)	52	1.7	55	1.8
Cable Car (California)	60	1.7	63	1.8

Bus

As shown in the 2017 SFMTA Bus Fleet Management Plan, for buses, the average maximum load is calculated using 4.5 square feet per standing passenger and the crowding capacity is calculated assuming 3.0 square feet per standing passenger.

Table 4-6: Passenger Load Standards – Bus

VEHICLE TYPE	AVERAGE MAXIMUM LOAD		CROWDING CAPACITY	
	TOTAL PASSENGERS	LOAD FACTOR	TOTAL PASSENGERS	LOAD FACTOR
32-ft Bus	33	1.40	38	1.60
40-ft Bus	44	1.45	51	1.65
60-ft Bus	69	1.55	81	1.85

Muni Forward

Muni Forward is SFMTA's program to improve transit service in San Francisco by planning, designing, and implementing 1) "transit priority" changes to the design of streets based on an evolving understanding of best practices in reducing delay, 2) changes to service reflecting evolving patterns of demand, and 3) related technology and fleet upgrades that support delivering more reliable service.

The Muni Forward program grew out of the Transit Effectiveness Project, or TEP, now known as Muni Forward. Starting in 2006, the TEP was a comprehensive analysis of Muni service. It resulted in recommendations to realign routes and increase service levels, as well as proposed capital investments to improve reliability and travel time, increase capacity and enhance pedestrian access and safety in the most heavily used corridors. The project's Environmental Impact Report or EIR was adopted in 2014.

Beginning in 2015, Muni has implemented Muni Forward-recommended service changes, increasing service levels systemwide by 10 percent. At the same time, it introduced a Rapid Network of bus routes making only the most important stops in major corridors, replacing existing limited-stop routes. Service on Route 28R was expanded from peak period-only to all day, and hours were extended on Express routes. Regional connectivity was improved using new connections to BART on Routes 28R, 29, 35 and 57. Finally, several new routes were introduced, including the E Embarcadero historic streetcar line, the 55 16th Street, the 44 Owl, and the 48 Owl, while other routes were realigned and/or renamed. These changes amounted to the largest expansion of Muni service in decades.

Within a year, systemwide ridership grew by 6 percent. Since it was introduced, ridership on the Rapid Network has grown by more than 22 percent, and the Muni Forward program has continued to improve service on a corridor-by-corridor basis, focusing primarily on capital improvements on Muni's most frequent lines and relying on a toolbox of transit-priority elements described in Appendix A, Muni Forward. Muni Forward projects and project segments that remain in the planning stage are described in Chapter 6, Capital Improvement Program. Projects and project segments now in final design, under construction or already completed include:

- The L Taraval Rapid Project, which includes transit only lanes, transit-priority traffic signals, and boarding islands to enhance safety on the line's surface segment in West Portal and the Sunset District, so that passengers getting on and off of trains don't have to step into the path of traffic.
- The N Judah Rapid Project, which will replace stop signs with more efficient traffic signals, provide bulb-out curb extension stops and boarding islands so that passengers don't have to step into traffic, and make other changes to improve reliability on Muni's busiest single route. Segments that have been "fast-tracked" and are now in development include Irving Street between Arguello Boulevard and 9th Street and Judah Street at 28th Avenue.
- The 1 California Transit Priority Project, which to date has provided transit-only lanes on Clay Street in the Financial District, and the related California Laurel Village Improvement Project, a partnership with San Francisco Public Works to provide bulb-out curb extension stops in Laurel Village, among other improvements.
- The 5 Fulton Rapid Project, which is making a series of changes to the design of Fulton and McAllister streets including addition of delay-reducing signals and a traffic circle, increased service and introduction of larger 60-foot articulated vehicles. All segments west of Market Street have been completed except in the Richmond District between Arguello Boulevard and Park Presidio Boulevard.
- The 7 Haight Noriega Rapid Project, which provided an innovative contraflow transit lane on Haight Street between Laguna and Market streets, allowing travel in both directions to be consolidated on Haight and reducing inbound travel times by several minutes per trip, and is now making transit priority improvements in the Lower and Upper Haight between Laguna and Stanyan streets.
- The 9 San Bruno Rapid Project, which provided transit-only lanes on Potrero Avenue in the Mission District and made improvements to 11th Street and Bayshore Boulevard benefitting three of Muni's busiest lines, the 8 Bayshore, 9 San Bruno and 9R San Bruno Rapid. Additional improvements are on the way on San Bruno Avenue.
- The 14 Mission Rapid Project, which so far has provided transit-only lanes in the Mission District and made other changes to improve transit travel times by 2 minutes per one-way trip. Surveys have found that riders perceive time savings closer to 10 minutes per trip.
- The 16th Street Improvement Project, which is currently providing transit-only lanes for the 22 Fillmore, providing reliable connections to the Mission as well as the rapidly growing Mission Bay mixed-use district and new Golden State Warriors basketball arena.
- The 27 Bryant Transit Reliability project, which will realign this Equity Strategy route (see "Service Equity Policy," Chapter 3) and move stops in the Tenderloin and Polk Gulch to better serve riders and residents of those neighborhoods.
- The 28 19th Avenue Rapid Project, which provided bulb-out curb extension stops, added Rapid service midday and a new alignment to better focus on crosstown service between Balboa Park and the Sunset District.
- The 30 Stockton Rapid Project, which has made a series of changes in the Marina District and will make changes soon on North Point and Van Ness, and the 3rd Street Transit and Safety Project and 4th Street Transit Improvement Project, which will make improvements to transit lanes and stops on the segments of the route South of Market.
- Extension of the Sansome Street contraflow transit lane in the Financial District, which enabled removal of a two block-long detour on Lines 10 and 12.
- The Lombard Street Safety Project, which made a number of transit and pedestrian improvements to a corridor shared by Muni routes 28, 43, and 19 Owl.
- Extension and colorization of the existing transit-only lanes on Market Street downtown.

For more information on results from implementation of these projects, please see Appendix A, Muni Forward.

PERFORMANCE

The National Transit Database (NTD) is the nation's primary source for information and statistics on the transit systems operating in the United States. The SFMTA submits data to the NTD on an annual basis for the assessment of the agency and its service planning practices. The data submitted to the NTD also informs the apportionment of the Federal Transportation Agency's funding in urbanized areas.

From FY 2012-FY 2017, unlinked passenger trips have shown a steady increase, peaking in FY 2016 and declining slightly in FY 2017. Additionally, the revenue service hours have fluctuated through FY 2015 and then increased in FY 2016 and FY 2017. Revenue service miles have increased in FY 2017 after remaining flat since FY 2014. Since MTC's adoption of the TSP targets, there have been changes to the methodology used to calculate these performance metrics. In FY 2014, at the request of the FTA, the SFMTA modified its methodology for calculating revenue hours by excluding undelivered service resulting from service interruptions as reported by the agency's Central Control log and Automatic Train Control System. This change also affected service mileage calculations.

In FY 2015, the SFMTA also significantly improved service delivery and started to implement a 10 percent service increase. This has decreased crowding on the Muni system and improved conditions for our riders. As San Francisco continues to grow, in both population and employment, the SFMTA will continue to monitor these metrics closely in order to maintain and improve service quality and reliability.

Table 4-7: Transit Performance Indicators – National Transit Database Audited Annual Data, FY 2012-FY 2017

METRIC	FY 2012	FY 2013	FY 2014[1]	FY 2015	FY 2016	FY 2017
Revenue Service Hours	3,182,574	3,205,867	3,091,554	3,010,140	3,238,830	3,625,884
Revenue Service Miles	24,304,903	24,247,011	23,440,702	21,527,691	23,919,084	26,964,653
Unlinked Passenger Trips	222,125,944	222,991,006	227,977,367	219,326,138[2]	232,348,185	225,786,174

Source: NTD Reporting\FY 2018\NTD End of Year Report\NTD Comparison.xlsx

1.A new federally-mandated counting methodology used for FY 2014 and beyond has resulted in lower reported revenue service hours and miles.

2.Unaudited

CHAPTER 3: SERVICE & SYSTEM EVALUATION

Additional Transit Performance Indicators

As discussed in the Goals, Objectives, and Standards section of this document, the SFMTA adopted several new metrics to track the efficiency and effectiveness of the transit system. These metrics include the Strategic Plan's Key Performance Indicators and other significant data points that would inform future decision-making purposes. The agency uses these metrics to assess its performance on a monthly basis giving SFMTA staff the opportunity to address any issues with transit service early and effectively.

The tables and charts on the following pages provide a snapshot of key metrics tracking Muni effectiveness and efficiency over the past several years.

The SFMTA has developed interactive public dashboards detailing its performance on agency goals and objectives, found online at http://sfmta.com/performance. Additionally, reports on the SFMTA's Key Performance Indicators (including those metrics listed in Table 12) are issued monthly and discussed in depth at the SFMTA Board of Directors' Policy & Governance Committee. These reports are also available online: http://sfmta.com/about-sfmta/reports/strategic-plan-progress-reports

*Table 4-8: Additional Transit Performance Indicators, Targets and Results – Unaudited Annual Data, FY 2013-FY 2018 (*Key Performance Indicators)*

METRIC	FY13-14 TARGET	FY14 ACTUAL	FY15-16 TARGET	FY15 ACTUAL	FY16 ACTUAL	FY17-18 TARGET	FY17 ACTUAL
Goal 1: Create a safer transportation experience for everyone							
SFPD-reported transit system related crimes (i.e. assaults, thefts, etc.)/100,000 miles*	3.4	9.4	3.1	8.2	6.4	5.3	4.6
Workplace injuries/200,000 hours (100 FTEs)*	14.6	12.0	13.1	11.0	12.8	11.3	12.4
Muni collisions/100,000 miles*	4.5	5.9	4.1	6.4	6.6	3.5	6.8
Muni falls on board/100,000 miles	-	4.3	-	4.2	4.3		4.2
Goal 2: Make transit, walking, bicycling, taxi, ridesharing and carsharing the most attractive and preferred means of travel							
Customer rating: Overall customer satisfaction; Scale of 1 (low) to 5 (high)*	-	3.0	3.5	3.1	3.2	3.4	3.2
Percentage of transit trips with <2 minute bunching on Rapid Network*	2.9%	4.0%	2.1%	4.8%	5.4%	1.8%	5.9%
Percentage of transit trips with + 5 minute gaps on Rapid Network*	14.6%	18.6%	10.7%	17.2%	16.9%	8.8%	18.1%
Percentage of on-time performance for non-Rapid Network routes	85.0%	59.6%	85.0%	57.4%	60.5%	85.0%	59.5%
Percentage of scheduled trips delivered	98.5%	96.3%	98.5%	97.7%	98.9%	98.5%	98.9%
Percentage of on-time departures from terminals	85.0%	73.9%	85.0%	72.2%	75.3%	85.0%	75.0%
Percentage of on-time performance	85.0%	58.9%	85.0%	57.0%	59.8%	85.0%	57.3%
Percentage of bus trips over capacity during AM peak (8:00 am - 8:59 am, inbound) at max load points	-	7.4%	-	4.7%	3.4%	-	-
Percentage of bus trips over capacity during PM peak (5:00 pm - 5:59 pm, outbound) at max load points	-	8.3%	-	5.6%	4.1%	-	-[1]
Mean distance between failure (Bus)	-	4,632	-	5,650	5,436	-	5,155
Mean distance between failure (Light Rail Vehicle)	-	3,164	-	4,517	5,547	-	5,218
Mean distance between failure (Historic)	-	2,045	-	1,797	1,971	-	2,512
Mean distance between failure (Cable)	-	4,734	-	5,200	4,412[2]	-	-
Percentage of scheduled service hours delivered	-	96.2%	-	97.7%	99.0%	-	98.9%
Ridership (rubber tire, average weekday)	-	504,205	-	512,817	519,477	-	507,600
Ridership (faregate entries, average weekday)	-	75,322	-	74,522	69,646	-	70,236
Percentage of days that elevators are in full operation	-	94.4%	-	93.3%	94.4%	-	97.0%
Percentage of days that escalators are in full operation	-	93.8%	-	91.9%	86.5%	-	91.4%
Mode Share*	50%	54%	50%	52%	54%	50%	57%
Metered hours with no rate change in SFpark pilot areas*	-	66.2%	-	60.3%	64.7%	-	71.8%
Goal 3: Improve the environment and quality of life in San Francisco							
SFMTA carbon footprint (metric tons C02e)*	-	45,244	17,434	43,499	24,146		3,483
Estimated economic impact of Muni service delays (Monthly $M)*	-	$2.8	-	$1.9	$1.7	-	-
Projects delivered on-time by phase*	-	-	-	65.6%	81.3%	-	84.3%
Projects delivered on-budget by phase	-	-	-	59.2%	97.8%	-	92.3%
Average annual transit cost per revenue hour*	$202	$224.73 (Adjusted) $224.88 (Nominal)	$192	$242.35 (Adjusted) $227.69 (Nominal)	$236.83[3] (Adjusted) $229.37 (Nominal)	$183	$220.39 (Nominal)
Passengers per revenue hour for buses	-	68	-	64	63[3]	-	63
Cost per unlinked trip[1]	-	$3.29 (Adjusted) $3.05 (Nominal)	-	$3.48 (Adjusted) $3.29 (Nominal)	$3.49[3] (Adjusted) $3.38 (Nominal)	-	$3.54 (Nominal)
Farebox recovery ratio	-	30%	-	30%	26%[3]		25%
Unscheduled absence rate by employee group (Transit Operators)	-	9.4%	-	7.7%	8.6%		8.1%
Structural operating budget deficit	This measure discarded.						
Structural capital budget deficit (SOGR)*	$260M	$260M	$130M		$229M		$278M
Goal 4: Create a collaborative environment to support delivery of outstanding service							
Employee rating: Do you feel you have the information you need to do your job? Scale of 1 (low) to 5 (high)*	-	3.5	4.0	3.5	3.5		3.5
Employee rating: Do you feel informed about agency issues, challenges and current events? Scale of 1 (low) to 5 (high)*	-	3.5	3.9	3.6	-		-
Employee rating: I feel as though the Agency communicates current events, issues, challenges and accomplishments clearly; scale of 1 (high) to 5 (low)* [4]		-		-	3.2		3.1
Employee rating: Overall employee satisfaction. Scale of 1 (low) to 5 (high)*	-	3.4	3.9	3.4	3.3		3.4
Employees with performance plans prepared by the start of fiscal year*	100%	62.5%	100%	31.3%	59.1%		44%
Employees with annual appraisals based on their performance plans*	100%	62.5%	100%	54.2%	58.9%		59%
Stakeholder rating: Satisfaction with SFMTA decision-making process and communications. Scale of 1 (low) to 5 (high)*	-	-	-	2.9			

1. During FY17 automated passenger counters were transtioned from legacy technology to new technology, and there was insufficient covereage of vehicles to compute accurate systemwide crowding metrics.
2. Current through March 2016.
3. FY16 figures are adjusted for inflation to reflect FY17 dollars and are based on preliminary unaudited

financials.

4. Employee rating of "I have access to information about Agency accomplishments, current events, issues and challenges" has been reworded to "I feel as though the Agency communicates current events, issues, challenges and accomplishments clearly" in the 2016 employee satisfaction survey.

Transit Ridership remains steady. Since FY 2011, transit ridership has been growing and recovering from a dip that started in FY 2010. Throughout FY 2015 and FY 2016, the SFMTA implemented a series of service increases and route changes under the Muni Forward program. The agency will continue to monitor ridership to evaluate the effectiveness of its service as well as improve service quality and reliability to generate long-term ridership gains.

Table 4-9: Annual Boardings (in Millions), FY 2011-FY 2018

YEAR	ANNUAL BOARDINGS (ROUNDED TO NEAREST MILLION)
FY 2011	214,000,000
FY 2012	222,000,000
FY 2013	223,000,000
FY 2014	228,000,000
FY 2015	229,000,000
FY 2016	232,000,000
FY 2017	226,000,000
FY 2018	225,000,000

Scheduled service delivered has improved and remains high. Between FY 2012 and FY 2018, scheduled service delivery improved from around 97 percent to 99 percent until FY 2018, at which point it began to decline. After delivering over 99 percent of scheduled service and exceeding its target while expanding service, the SFMTA has encountered new challenges in maintaining this high level of service delivery. It aims to bolster its performance by hiring and training new transit operators and reducing the number of transit operators on long-term leave.

Table 4-10: Percent of Scheduled Trips Delivered, FY 2012-FY 2018

YEAR	PERCENTAGE
FY 2012	96.8%
FY 2013	97.1%
FY 2014	96.3%
FY 2015	97.7%
FY 2016	99.1%
FY 2017	98.9%
FY 2018	97.5%

Mean distance between vehicle failures is improving. Vehicle maintenance and reliability has improved significantly since FY 2012. For light rail vehicles, the mean distance between failures has lengthened by even though the existing Breda vehicles beginning to reach the end of their useful life. For the rubber tire fleet (both motor and trolley coaches), the mean distance between failures has lengthened substantially due to the procurement and rollout of new vehicles.

Table 4-11:Mean Distance Between Failures (in Miles), FY 2012-2018

YEAR	LIGHT RAIL VEHICLES	RUBBER TIRE FLEET
FY 2012	3,137	3,300
FY 2013	3,571	3,310
FY 2014	3,164	4,632
FY 2015	4,517	5,628
FY 2016	5,547	5,416
FY 2017	5,218	5,155
FY 2018	5,204	7,407

Working to improve on-time performance. Between 2012 and 2015, San Francisco's population increased by over 35,000 (4.5 percent) while employment mushroomed by over 86,000 (14.8 percent). Even with this rapid growth and stress on the transportation network, the SFMTA has maintained an on-time performance rate of approximately 60 percent. The SFMTA is working to improve on-time performance by reassessing schedules and supervision deployment, implementing red lanes reserved for transit and taxis and implementing a new radio communications system to improve real-time responsiveness to traffic and service delays.

Table 4-12: Percent On-Time Performance, FY 2012-FY 2018

YEAR	PERCENTAGE
FY 2013	58.2%
FY 2014	57.9%
FY 2015	56.8%
FY 2016	59.8%
FY 2017	57.3%
FY 2018	56.1%

Table 4-13: Fixed Route Weekday Average Boardings by Line, FY 2018 (Rounded to Hundreds)

CATEGORY	VEHICLE TYPE	LINE	DAILY BOARDINGS
Rapid	Light Rail Vehicle	J	15,500
	Light Rail Vehicle	KT	40,600
	Light Rail Vehicle	L	33,000
	Light Rail Vehicle	M	31,600
	Light Rail Vehicle	N	43,000
	Trolley Coach	5R	12,900
	Motor Coach	7R	2,00
	Motor Coach	9R	11,700
	Motor Coach	14R	18,900
	Motor Coach	28R	4,500
	Motor Coach	38R	29,500
Frequent	Trolley Coach	1	23,500
	Motor Coach	7	9,400
	Motor Coach	8	22,800
	Motor Coach	9	9,700
	Trolley Coach	14	24,900
	Trolley Coach	22	16,000
	Trolley Coach	24	12,000
	Motor Coach	28	11,700
	Trolley Coach	30	20,400
	Motor Coach	38	21,500
	Motor Coach	47	11,900
	Trolley Coach	49	25,000

CATEGORY	VEHICLE TYPE	LINE	DAILY BOARDINGS
Grid	Motor Coach	2	5,200
	Trolley Coach	3	2,500
	Motor Coach	5	8,400
	Trolley Coach	6	7,800
	Motor Coach	10	6,500
	Motor Coach	12	6,300
	Motor Coach	18	3,200
	Motor Coach	19	6,900
	Trolley Coach	21	6,600
	Motor Coach	23	3,800
	Motor Coach	27	6,200
	Motor Coach	29	17,500
	Trolley Coach	31	8,800
	Trolley Coach	33	5,700
	Motor Coach	43	12,600
	Motor Coach	44	15,500
	Trolley Coach	45	10,000
	Motor Coach	48	7,600
	Motor Coach	54	6,800
Connector	Motor Coach	25	2,800
	Motor Coach	35	1,100
	Motor Coach	36	1,500
	Motor Coach	37	2,200
	Motor Coach	39	500
	Motor Coach	52	2,000
	Motor Coach	55	1,900
	Motor Coach	56	400
	Motor Coach	57	2,100
	Motor Coach	66	800
	Motor Coach	67	1,400

CATEGORY	VEHICLE TYPE	LINE	DAILY BOARDINGS
Historic	Streetcar	F	19,700
	Cable Car	59	5,100
	Cable Car	60	7,800
	Cable Car	61	4,000
Special-ized	Motor Coach	NX	1,300
	Motor Coach	1AX	1,200
	Motor Coach	1BX	1,500
	Motor Coach	7X	1,600
	Motor Coach	8AX	5,800
	Motor Coach	8BX	5,600
	Motor Coach	14X	4,200
	Motor Coach	30X	2,000
	Motor Coach	31AX	1,100
	Motor Coach	31BX	900
	Motor Coach	38AX	900
	Motor Coach	38BX	1,000
	Motor Coach	41	3,500
	Motor Coach	81X	100
	Motor Coach	82X	500
	Motor Coach	83X	300
	Trolley Coach	88	400
Owl	Motor Coach	90	300
	Motor Coach	91	700

EQUIPMENT AND FACILITIES

In 2017, the SFMTA completed a Facilities Framework, a flexible and dynamic tool providing alternatives to address the SFMTA's facilities needs through 2040. The Facilities Framework provided the SFMTA with various scenarios to pursue based on fleet storage and transit operational and maintenance needs, and considering market conditions for potential joint development after transit priorities are accommodated.

In 2018, based on the findings and recommendations of the Facilities Framework, the SFMTA launched the Building Progress program to holistically address building maintenance needs, building upgrades and tenant improvements, and facility rebuild and modernization projects. Through the effort, the SFMTA also made an organizational realignment to bolster staffing around this critical effort. The SFMTA is now implementing a board range of facility projects, focused on maintaining and improving workspace for our staff and improving our public service.

PARATRANSIT SERVICES

San Francisco Paratransit is a van and taxi program for people unable to independently use or access public transit because of a disability or disabling health condition. Since 1990, the Americans with Disabilities Act (ADA) has required all public transit agencies to provide paratransit services to eligible people with disabilities. Muni has provided paratransit services since 1978.

SFMTA owns the paratransit fleet and contracts with a paratransit broker to manage the service. The paratransit broker contracts with van and taxi companies to provide demand-responsive transportation.

The SFMTA oversees paratransit service within San Francisco, to Treasure Island, to the northernmost part of Daly City in San Mateo County, and to the Marin Headlands on weekends, to maintain service within ¾'s of a mile of the Muni 76X-Marin Headlands line. In FY 2019, the SFMTA will procure approximately 59 new paratransit vehicles, including 41 replacement vehicles and 18 expansion vehicles. More information on the vehicle procurement can be found in the description of the SFMTA transit fleet in Chapter 6, Capital Improvement Program.

San Francisco Paratransit provides three types of service to customers eligible for ADA paratransit:

SF Access Van Service. SF Access provides pre-scheduled, door-to-door ADA van services. SF Access is a shared-ride service. SF Access customers must make a reservation from one to seven days before the day of the trip, and trips are provided within 20 minutes of the negotiated pick-up time.

Taxi Service. Paratransit taxi is the same curb-to-curb taxi service that is available to the general public, except paratransit customers are provided with a monthly subsidy and are issued a debit card to pay for their trips. This is not an ADA-mandated service, but many customers find that it better meets their transportation needs.

Group Van Service. Group Van is a pre-scheduled van service providing door-to-door transportation to groups of ADA-eligible customers attending specific agency programs such as Adult Day Health Care, senior centers, or work sites.

In FY 2019, ADA paratransit customers will have access to two new online portals that will improve their experience paying for and booking trips. SF Paratransit Access Online provides paratransit customers with the ability to book and order SF Access ride tickets. SF Paratransit Taxi Online provides customers who use the taxi debit card program to make purchases and manage their accounts online.

In addition, the SFMTA provides specialized non-ADA paratransit service and mobility management programs to a wide range of older adults and people with disabilities:

Shop-A-Round. Shop-a-Round is a low-cost van and taxi service that takes groups of seniors and individuals with disabilities to and from preselected stores (including supermarkets, grocery stores, and farmers markets) and provides personalized assistance not available on Muni. The service is a non-ADA program, meaning riders qualify if they meet one of three criteria: 1) age 65 and older; 2) disabled and have an RTC Discount ID; or 3) eligible for ADA Paratransit services.

Van Gogh. The Van Gogh shuttle transports seniors and people with disabilities to social and cultural events, and reduces social isolation. Riders are eligible based on the same criteria as Shop-a-Round.

Mobility Management. SF Paratransit administers a Mobility Management program to connect older adults and people with disabilities with appropriate transportation services, information, and referrals. The program provides consumers with tailored information, counseling, and training in person, online, and over the phone.

SFMTA has a long history of community involvement with paratransit services. The Paratransit Coordinating Council (PCC) is an advisory body for customers, service providers, social service agency representatives and others to provide input on the paratransit program. The Executive Committee of the PCC meets regularly to discuss and provide input to SFMTA on paratransit services. Also, the Multimodal Accessibility Advisory Committee (MAAC) is a group of seniors and customers with disabilities who regularly use SFMTA services and provide input on accessibility-related projects. MAAC is dedicated to maintaining, improving, and expanding the accessibility of San Francisco's streets and public transportation system. More recently, staff convened the Mobility Management Steering Committee, comprised of a broad representation of community advocates and community based agency representatives, to solicit guidance on how to connect older adults and people with disabilities with transportation information, programs, and referrals.

MTC COMMUNITY-BASED TRANSPORTATION PLANNING PROGRAM

The City and County of San Francisco has completed five plans under the Metropolitan Transportation Commission (MTC) Community-based Transportation Planning Program (CBTP.) With funding from the local Proposition K sales tax measure, the San Francisco County Transportation Authority (SFCTA) planned and completed CBTPs in Mission-Geneva (April 2007), Bayview Hunters Point (June 2010), Western South of Market (March 2012), and Broadway-Chinatown (October 2014).

In FY 2015, the SFMTA took on leadership of the city's fifth CBTP effort in the Western Addition neighborhood, working closely with District 5 Supervisor London Breed, SFCTA, the project's Technical Advisory Committee (TAC) and contracted community-based organization (CBO) Mo'MAGIC.

The effort included significant existing conditions analysis and community engagement, and resulted in near-term recommendations to improve pedestrian safety at more than 40 intersections and mid- and long-term recommendations to improve corridors including Golden Gate Avenue, Turk Street, and the Buchanan Street Mall, as well as a network of enhanced pedestrian-scale lighting called the Walkable Western Addition. Near- and mid-term improvements are fully funded; the SFMTA is working with the SFCTA to identify funding for long-term improvements.

Currently, the SFMTA is completing a CBTP for the Bayview neighborhood, this time funded by a Caltrans Planning Grant. One component of the effort is a participatory budgeting process supported by the MTC Lifeline Transportation Program. The project is currently in the second phase of public outreach. Balloting for the use of the $600,000 in Lifeline funds will take place in June. The plan development process will continue through 2019, with plan adoption scheduled for winter 2020.

TITLE VI ANALYSIS AND REPORT

As a recipient of federal funds, the SFMTA is required to submit an updated Title VI Program to the Federal Transit Administration (FTA) Regional Civil Rights Office every three years. The SFMTA's 2016 Title VI Program was submitted to FTA by the December 1, 2016 deadline. This program served as an update to the SFMTA's 2013 Title VI Program and detailed compliance with both the "General Requirements" (Section 1) and "Program-Specific Requirements" (Section 2) as required by FTA C 4702.1B.

In addition to the 2016 program update, the SFMTA provided results of its monitoring program comparing systemwide transit service performance to the performance of "minority" and "non-minority" routes as defined by FTA. The program update and monitoring report were approved by the SFMTA Board of Directors in November 2016. The next Title VI Program Update is due to FTA by December 1, 2019.

(For more on the SFMTA's equity-related efforts, including the Service Equity Strategy, see Chapter 3, Standards and Policies.)

Paratransit Taxi Services

FTA TRIENNIAL REVIEW

The most recent FTA Triennial Review of the SFMTA was conducted in 2019. Deficiencies were identified in the following review areas: Technical Capacity – Award Management; Satisfactory Continuing Control; and Maintenance. A schedule for corrective actions was created in order to address these deficiencies and was included in the draft report, issued in October 2019.

Table 4-14: FTA Triennial Review Summary of Findings

REVIEW AREA	FINDING	DEFICIENCY CODE(S)	CORRECTIVE ACTION	RESPONSE DUE DATE
1. Legal	ND			
2. Financial Management and Capacity	ND			
3. Technical Capacity – Award Management	D	TC-AM3-1: MPRs lack required information	SFMTA must submit to the FTA regional office an implemented procedure to ensure MPRs include all required information, particularly explanations in the milestone progress remarks sections for any revised estimated completion dates. MPRs due October 30, 2019; January 30, 2020; and for all subsequent quarters must be complete.	March 2, 2020
	D	TC-AM5-1*: Inactive awards/ untimely close-outs	SFMTA must submit to the FTA regional office more effective procedures for award management to enable it to close awards on a timely basis. Close out the awards that are 100 percent expended, with the assistance of the FTA Program Manager, as needed. If necessary, work with the FTA Program Manager to revise award budgets so that funds can be spent and drawn down in the other six active awards that are more than 98 percent expended. Submit a monthly closeout schedule beginning in December 2019 until further notice.	March 2, 2020
4. Technical Capacity – Program Management and Subrecipient Oversight	NA			
5. Technical Capacity – Project Management	ND			
6. Transit Asset Management	ND			
7. Satisfactory Continuing Control	D	SCC10-1*: Excessive fixed-route bus spare ratio	SFMTA must submit to the FTA regional office a plan for reducing the spare ratio to 20 percent. The plan should include a spreadsheet listing for each bus type, the number of buses, and, for each year until the spare ratio reaches 20 percent, the number of buses to be disposed of, the number of buses to be added, the projected peak requirement, and the projected spare ratio. The plan should include detailed justifications for years in which spare ratios exceed 20 percent. The Fleet Status Report in TrAMS must be updated annually to reflect progress. Notify the FTA Program Manager at the time of annual updates.	March 2, 2020
8. Maintenance	D	M2-2*: Late facility/ equipment preventive maintenance	SFMTA must submit to the FTA regional office procedures for completing preventive maintenance inspections on time and for periodically conducting internal audits of performance. Through December 30, 2020, or until otherwise notified, SFMTA must submit a monthly report signed by the chief executive officer or other senior management designee on the preventive maintenance results of the air compressors and LRV lifts examined during the review until the data demonstrate SFMTA has conducted 80 percent of its preventive maintenance on time for 12 consecutive months. Include with the submittal to the FTA regional office a report listing the items, the dates the inspections are due, the dates of the actual inspections, and back up documentation (e.g., copy of work order, printout from the maintenance management system). List the percentage of the inspections performed on time.	March 2, 2020 December 30, 2020
9. Procurement	ND			
10. Disadvantaged Business Enterprise	ND			
11. Title VI	ND			
12. Americans With Disabilities Act (ADA) - General	ND			
13. ADA – Complementary Paratransit	ND			
14. Equal Employment Opportunity	ND			
15. School Bus	ND			
16. Charter Bus	ND			
17. Drug-Free Workplace Act	ND			
18. Drug and Alcohol Program	ND			
19. Section 5307 Program Requirements	ND			
20. Section 5310 Program Requirements	NA			
21. Section 5311 Program Requirements	NA			

** Denotes repeat deficiency*

OPERATIONS PLAN AND BUDGET

OPERATIONS PLAN

This chapter outlines revenues and expenses projected over the next 15 years for Muni transit service (including both fixed- route and demand-responsive services) as well as other transportation services provided by the SFMTA.

Fixed-Route Transit Service Framework

The below service framework, previously described in Chapter 2, is used to guide planning for, evaluation of, and levels of investment in fixed-route transit services.

- Muni Metro & Rapid Bus: These lines, including Muni Metro light rail lines as well as Rapid bus lines, account for the majority of Muni ridership. All lines are scheduled to operate every 10 minutes or less all day weekdays, and transit-priority improvements (see "Muni Forward," Chapter 4) are focused on these corridors.
- Frequent: These bus lines also operate every 10 minutes or less all day weekdays in major corridors, but make more frequent stops than Rapid lines.
- Grid: Along with Muni Metro, Rapid bus and Frequent lines, these lines form the framework of "trunk" lines providing service across the city. Frequencies vary from every 12 to every 30 minutes all day weekdays.
- Connector: These lines are shorter, and serve to provide coverage throughout the city, including neighborhood-based "circulator" service to hillside neighborhoods. They generally operate every 30 minutes all day weekdays.
- Historic: This category includes Muni's cable car and historic streetcar lines, which operate every 10 minutes or less all day weekdays.
- Specialized: This category includes: express lines, primarily peak period-only services for commuters; supplemental service to middle and high schools; overnight owl service; and special event service. Frequencies on these lines vary.
- Owl: Some lines operate 24 hours a day, while other overnight lines (operating between 1 and 5 a.m.) are made up of segments of multiple lines.

Fixed-Route Transit Service Increases

Muni's process for determining whether to increase service on a route is based primarily on the following factors:

- Closing equity gaps, in accordance with the Service Equity Strategy (see Chapter 3, Standards and Policies)
- Reducing crowding
- Responding to evolving development patterns

As part of the Muni Forward program (see "Muni Forward," Chapter 4), fixed-route transit service was increased 3 percent in Fiscal Year 2015 and 7 percent in FY 2016. Changes included:

- Increasing frequency of transit service along heavily used corridors.
- Creating new routes.
- Changing existing route alignments.
- Eliminating underutilized routes or route segments.
- Introducing larger buses on crowded routes.
- Changing the mix of Rapid, Frequent, Grid, Connector, and Specialized services.
- Replacing Limited routes with a Rapid Network.

While service levels have remained relatively constant since 2016, transit capacity has been expanded through introduction of higher-capacity vehicles, including new "LRV4" light rail vehicles as well as replacement of 40-foot coaches with 60-foot coaches in high-demand bus corridors.

Service will be increased when the Muni Metro T-Third Street line is extended following completion of the Central Subway project in FY 2020 (see "Central Subway," Chapter 6). While not shown in the table below, service levels are also anticipated to increase in response to development projects that will help fund increased service, such as Candlestick/Hunters Point.

Table 5-1: Planned Levels of Transit Service Systemwide, FY 2018-FY 2030

FISCAL YEAR	SERVICE HOURS	SERVICE MILES
2018 (actual)	3,816,150	27,729,250
2019	3,816,150	27,729,250
2020	3,898,550	28,328,000
2021	3,898,550	28,328,000
2022	3,898,550	28,328,000
2023	3,898,550	28,328,000
2024	3,898,550	28,328,000
2025	3,898,550	28,328,000
2026	3,898,550	28,328,000
2027	3,898,550	28,328,000
2028	3,898,550	28,328,000
2029	3,898,550	28,328,000
2030	3,898,550	28,328,000

Paratransit & Demand-Responsive Service

SFMTA's Americans with Disabilities Act (ADA)-mandated paratransit services and demand-responsive services for older adults and people with disabilities are described in detail under "Paratransit Services" in Chapter 4.

Agencywide Operations

In addition to operating and maintaining the nation's eighth-largest public transit system, the SFMTA manages parking and traffic, facilitates bicycling and walking, regulates taxis, and plans and implements community-based projects to improve the transportation network in San Francisco. The Operating Financial Plan supports these operations by funding capital projects as well as the administrative, financial services, regulatory, and communications operations of the agency.

OPERATIONS BUDGET

The San Francisco City Charter requires the SFMTA to submit a balanced budget every two years. The SFMTA Operating Budget is based on revenue projections from the following sources: passenger fares (both fixed route and paratransit); fines, fees, and permits; revenues from parking meters and garages; operating grants; and transfers from the City and County of San Francisco General Fund. Transit service recommendations are based on the process described above under "Fixed-Route Transit Service Increases," and are rooted in the Muni Service Equity Strategy process.

The SFMTA submits its two-year budget in even-numbered years. The Agency may submit budget amendments for the second fiscal year in odd-numbered years. The proposed budget must be reviewed and approved by the SFMTA Board of Directors and submitted to the Mayor and Board of Supervisors no later than May 1. The Mayor and Supervisors do not have line-item revision authority over the SFMTA Budget. Instead, the Board of Supervisors may allow the entire budget to take effect without any action on its part, or it may reject the budget in its entirety by seventh-eleventh vote.

As part of each two-year budget cycle, input is solicited from members of the public via town hall meetings, public hearings before the SFMTA Board, presentations to the Board of Supervisors, and collection of public comments via other means such as mail and email. The SFMTA Citizens Advisory Council (CAC) also holds several meetings related to the budget.

Table 5-2: Summary of Expenditures for FY 2018 Amended Budget and FY 2019-FY 2020 Adopted Budgets (in Millions of Dollars)

BUDGET CATEGORY	FY 2018 AMENDED BUDGET	FY 2019 ADOPTED BUDGET	FY 2020 ADOPTED BUDGET
Salaries & Benefits	676.2	713.0	766.6
Contracts and Other Services	154.7	158.2	162.7
Materials & Supplies	78.2	71.8	77.6
Equipment & Maintenance	65.8	28.5	28.2
Rent & Building	12.8	17.9	18.3
Insurance, Claims & Payments to Other Agencies	68.0	68.8	70.6
Services from City Departments	70.2	77.1	79.2
Subtotal - Operating Budget	1,125.9	1,135.3	1,203.2
Capital Projects Included in Operating Budget	57.6	82.2	71.2
Total	**1,183.5**	**1,217.5**	**1,274.4**

Table 5-3: Summary of Revenues for FY 2018 Amended Budget and FY 2019-FY 2020 Adopted Budgets (in Millions of Dollars)

BUDGET CATEGORY	FY 2018 AMENDED BUDGET	FY 2019 ADOPTED BUDGET	FY 2020 ADOPTED BUDGET
Transit Fares	203.4	204.0	212.9
Operating Grants	148.4	170.0	174.4
Parking Fees, Fines & Permits	336.6	358.8	368.5
Other (Advertising, Interest, and Service Fees)	77.0	45.6	64.0
General Fund Transfer (Based on City Charter)	313.6	336.3	345.4
Use of Fund Balance	47.1	33.2	38.0
Subtotal - Operating Budget	1,126.1	1,147.9	1,203.2
Capital Projects Included in Operating Budget	57.4	69.6	71.2
Total	**1,183.5**	**1,217.5**	**1,274.4**

Long-Term Projected Operations Revenues and Expenses

The SFMTA Operating Financial Plan is longer-term than the two-year operating budget. The Operating Financial Plan's projections are not designed to be precise forecasts for any specific year; instead, the Operating Financial Plan helps the Agency and its stakeholders understand a long-term financial scenario. The Plan is based on historical information, long-term trends, and estimates of projected revenues and expenses.

- Operating expenditures: For operating expenditures, the Plan assumed no major changes to service levels and number of employees within the projected period. In FY 2020, most labor unions have open contracts and will therefore enter negotiations with the City in the spring of 2019. This plan as of this date assumes salary increases for most employee unions in line with the Consumer Price Index (CPI), which is using the average projection of the California Department of Finance SF Area CPI and Moody's SF Metropolitan Statistical Area CPI. This is 2.85% for FY 2020, 3.08% for FY 2021, 2.99% for FY 2022, 3.03 for FY 2023, and 3.01 for FY 2024. Using FY 2019 adopted budget as the base, the projected inflationary increases for non-labor expenses follow the same rates, with FY 2019 budget reflecting a 2.5% reduction in divisional base budget and additional funding for new transit programs. Flowing through the Operating budget is funding for capital needs from General Fund Population Based Baseline, Transportation Sustainability Fee and Development Impact fees administered by the Interagency Plan Implementation Committee (IPIC) which was established in October of 2006 by the Board of Supervisors to formalize interagency coordination for Area Plan-identified community improvements. From FY 2021 through FY 2035, operating expenses are projected to increase by 4 percent annually.
- Operating revenues: For operating revenues, the plan assumed the rate increases based on the FY 2018 actual performance and FY 2019 projections using the FY 2019 adopted budget as the base. This includes a 2% annual increase for parking fees and fines, 1.5% for transit fares, 2.5 percent for operating grants, an averaged 5% for miscellaneous revenues that include advertising, interest and rental income, charges for services, and cost recoveries for services provided to other City departments. It also includes elimination of revenues from Taxi medallion sales and a rate adjusting-down for taxi fees and permits. The estimate for City General Fund Baseline transfers from FY 2020 through FY 2024 are derived from the City's Five-Year Financial Plan, published in January 2019. Transportation Sustainability Fee and Development Impact fees. From FY 2021 through FY 2035, operating expenses are projected to increase by 2.6 percent annually.

Funding SFMTA Operations & Changes in Transit Service

The SFMTA adopted two-year operating budget (FY 2019 and FY 2020) supports all of its Strategic Plan Goals and follows the Transit First Policy Principles. The adopted FY 2019 and FY 2020 operating budgets added new program funding for additional Transit needs including new light rail vehicle service, setup of Central Subway services, and opening the new Islais Creek Maintenance Yard. Specific expenditures to support these programs include new bus operators and maintenance staffs, materials and supplies, professional services, and other current expenditure items.

The last line of the Operating Financial Plan (Other Revenue Sources TBD) shows the projected funding gap from FY 2021 through FY 2035. During each budget cycle, the SFMTA works with policy makers to close that gap through a combination of revenue measures and expenditure reductions.

Projected Changes in Fare Revenues

The approved fare changes are based on the SFMTA's Automatic Indexing Policy and Cost Recovery calculations for various fares, fees, fines, and charges subject to the California Vehicle Code. Some fare changes are based on alternative pricing, including but not limited to, maintaining fares for Single ride fares for Clipper/Muni Mobile, implementing fare differentials for visitor passports, adopting a new low-income single ride product, and authorizing a 10% discount for bulk purchases of certain fare mediums. The projected increases in fare revenues are included as a consistent annual increase in the Operating Financial Plan.

Free Muni Program

In FY 2013 and FY 2014, the SFMTA implemented a pilot program to provide free Muni service for youth ages 5 through 17 living in San Francisco. The program was continued through FY 2016 with a gift from Google in 2014. The SFMTA Board of Directors subsequently extended the program to include 18 year olds and 19 to 22 year old students enrolled in the San Francisco Unified School Districts' Special Education Services (SES) and English Learner (EL) programs, with funding allocated through FY 2019 and FY 2020 via budget process. The Free Muni for Seniors (age 65 and older) and People with Disabilities Program (FMSD) was approved by the SFMTA Board of Directors in January 2015 and the program began on March 1, 2015, with funding allocated through FY 2019 and FY 2020 via budget process. The People with Disabilities Program is available to San Francisco residents with an active Regional Transit Connection (RTC) Clipper Card.

The SFMTA now provides free Muni service to more than 60,000 low- and moderate-income youth, seniors, and people with disabilities who use a Clipper® card. More information on Free Muni Program and applications can be found at www.sfmta.com/freemuni.

Labor and Contract Expenses

The current labor agreements for most labor unions will end in fiscal year 2019, at which point expenses due to labor and service contracts may change. Estimates for increased labor and contract expenses are included as an annual increase in the Operating Financial Plan and are based on the Consumer Price Index (CPI) that uses the average projection of the California Department of Finance SF Area CPI and Moody's SF Metropolitan Statistical Area CPI.

Paratransit Funding Sources

Paratransit services, including both Americans with Disabilities Act (ADA) service and non-ADA demand-responsive services, are funded through the mix of federal and local funding sources listed in the Operating Financial Plan.

Recent History of Operating Expenses & Revenues

Table 5-4: Operating Expenses, FY 2014-FY 2019 (in Millions of Dollars)

BUDGET CATEGORY	FY 2014 ACTUAL	FY 2015 ACTUAL	FY 2016 ACTUAL	FY 2017 ACTUAL	FY 2018 ACTUAL	FY 2019 PROJECTION
Salaries	350.0	376.3	404.3	425.6	457.4	478.3
Benefits	183.5	197.4	200.3	204.8	219.8	222.4
Fuel, Lubricants, Materials & supplies	93.2	88.3	95.7	79.2	87.7	117.3
Professional Services/Work Orders	140.6	146.0	158.6	186.6	168.1	231.0
Other	121.1	150.4	125.0	146.6	174.8	75.5
Total Operating Revenues	888.4	958.4	983.9	1,042.8	1,107.8	1,124.5

Table 5-5: Operating Revenues, *FY 2014-FY 2019 (in Millions of Dollars)*

BUDGET CATEGORY	FY 2014 ACTUAL	FY 2015 ACTUAL	FY 2016 ACTUAL	FY 2017 ACTUAL	FY 2018 ACTUAL	FY 2019 PROJECTION
Passenger Fares	212.9	214.7	206.8	197.2	203.8	203.3
General Fund	243.9	272.3	284.7	312.6	338.9	353.1
Parking Meters & Garages	195.2	195.5	200.6	199.2	201.4	202.7
Fines, Fees, & Permits	156.0	129.4	127.3	142.2	146.8	146.9
Operating Grants	139.2	146.6	143.3	136.9	152.9	161.2
Other Revenue	30.6	53.6	54.6	75.9	84.2	70.0
Total Operating Revenues	977.8	1,012.1	1,017.3	1,064.0	1,128.0	1,137.2

Table 5-6: Operating Financial Plan, FY 2018-FY 2035: Expenditures (in Thousands of Dollars)

BUDGET CATEGORY	FY 2018 AMENDED BUDGET	FY 2019 ADOPTED BUDGET	FY 2020 ADOPTED BUDGET	FY 2021 5-YEAR PLAN	FY 2022 5-YEAR PLAN	FY 2023 5-YEAR PLAN	FY 2024 5-YEAR PLAN	FY 2025 PROJECTION	FY 2026 PROJECTION	FY 2027 PROJECTION	FY 2028 PROJECTION	FY 2029 PROJECTION	FY 2030 PROJECTION	FY 2031 PROJECTION	FY 2032 PROJECTION	FY 2033 PROJECTION	FY 2034 PROJECTION	FY 2035 PROJECTION
Salaries	447,390.5	477,502.0	518,201.1	534,161.7	550,133.2	566,802.2	583,862.9	601,378.8	619,420.2	638,002.8	657,142.9	676,857.2	697,162.9	718,077.8	739,620.1	761,808.7	784,663.0	808,202.9
Fringe Benefits	228,807.8	235,455.5	248,408.5	263,595.9	279,726.1	296,904.1	315,178.5	334,625.3	355,325.6	377,362.4	400,824.4	425,806.1	452,408.7	480,739.9	510,914.9	543,056.6	577,296.5	613,774.6
Materials and Supplies	144,051.5	100,234.3	105,830.1	90,277.6	92,976.9	95,794.1	98,677.5	101,637.8	104,687.0	107,827.6	111,062.4	114,394.3	117,826.1	121,360.9	125,001.7	128,751.7	132,614.3	136,592.7
Professional Services and Work Orders	190,463.1	198,847.4	204,724.2	212,363.5	219,010.7	228,003.2	234,803.7	242,226.0	249,811.2	258,307.3	267,117.8	276,256.0	285,735.8	295,571.6	305,778.6	316,373.0	327,371.6	338,791.9
Other Operating Expenses	115,127.3	123,199.0	126,069.2	127,278.2	130,346.5	133,385.2	136,667.2	140,049.7	144,251.1	148,578.7	153,036.0	157,627.1	162,355.9	167,226.6	172,243.4	177,410.7	182,733.0	188,215.0
Total Operating Expenses	1,125,840.2	1,135,238.1	1,203,233.1	1,227,676.9	1,272,193.4	1,320,888.8	1,369,189.8	1,419,917.6	1,473,495.2	1,530,078.8	1,589,183.6	1,650,940.7	1,715,489.4	1,782,976.7	1,853,558.7	1,927,400.8	2,004,678.3	2,085,577.1
Contributions for Current Capital Projects	270.0	12,600.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Needs	1,126,110.2	1,147,838.1	1,203,233.1	1,227,676.9	1,272,193.4	1,320,888.8	1,369,189.8	1,419,917.6	1,473,495.2	1,530,078.8	1,589,183.6	1,650,940.7	1,715,489.4	1,782,976.7	1,853,558.7	1,927,400.8	2,004,678.3	2,085,577.1

Note: Data in this exclude capital project fund (CPF) included in annual appropriation ordinance

Table 5-7: Operating Financial Plan, FY 2018-FY 2035: Revenues (in Thousands of Dollars)

BUDGET CATEGORY	FY 2018 AMENDED BUDGET	FY 2019 ADOPTED BUDGET	FY 2020 ADOPTED BUDGET	FY 2021 5-YEAR PLAN	FY 2022 5-YEAR PLAN	FY 2023 5-YEAR PLAN	FY 2024 5-YEAR PLAN	FY 2025 PROJECTION	FY 2026 PROJECTION	FY 2027 PROJECTION	FY 2028 PROJECTION	FY 2029 PROJECTION	FY 2030 PROJECTION	FY 2031 PROJECTION	FY 2032 PROJECTION	FY 2033 PROJECTION	FY 2034 PROJECTION	FY 2035 PROJECTION
Fares	203,430.5	203,883.3	212,941.7	216,122.0	219,349.8	222,625.8	225,950.9	229,325.7	232,751.0	236,227.5	239,756.0	243,337.3	246,972.2	250,661.4	254,405.8	258,206.2	262,063.5	265,978.5
Non-Fare Revenue	413,646.0	404,395.3	432,509.5	412,980.5	422,589.5	432,634.2	443,146.2	454,160.4	465,714.7	477,850.2	490,612.3	504,050.1	518,217.7	533,173.8	548,983.0	565,715.6	583,448.8	602,266.9
Other (City GF Transfer)	313,590.0	336,320.0	345,410.0	384,890.0	400,160.0	412,050.0	425,180.0	437,935.4	451,073.5	464,605.7	478,543.8	492,900.2	507,687.2	522,917.8	538,605.3	554,763.5	571,406.4	588,548.6
County Sales Tax	9,670.0	9,670.0	9,670.0	9,911.8	10,159.5	10,413.5	10,673.9	10,940.7	11,214.2	11,494.6	11,782.0	12,076.5	12,378.4	12,687.9	13,005.1	13,330.2	13,663.5	14,005.0
BART ADA	1,000.0	1,739.6	1,791.7	1,836.5	1,882.5	1,929.5	1,977.8	2,027.2	2,077.9	2,129.8	2,183.1	2,237.6	2,293.6	2,350.9	2,409.7	2,469.9	2,531.7	2,595.0
Fund Balance	47,088.0	33,200.0	38,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bridge Tolls																		
Regional Measure 2 Operating	2,754.0	2,687.5	2,768.1	2,837.3	2,908.3	2,981.0	3,055.5	3,131.9	3,210.2	3,290.4	3,372.7	3,457.0	3,543.4	3,632.0	3,722.8	3,815.9	3,911.3	4,009.1
TDA																		
Article 4/8 and 4.5	41,653.1	46,162.7	47,547.6	48,736.3	49,954.7	51,203.5	52,483.6	53,795.7	55,140.6	56,519.1	57,932.1	59,380.4	60,864.9	62,386.6	63,946.2	65,544.9	67,183.5	68,863.1
AB 1107	37,740.0	43,268.4	44,566.5	45,680.6	46,822.6	47,993.2	49,193.0	50,422.8	51,683.4	52,975.5	54,299.9	55,657.4	57,327.1	58,760.3	60,229.3	61,735.0	63,278.4	64,860.4
STA																		
Revenue-Based	36,740.0	50,121.8	51,625.5	52,916.1	54,239.0	55,595.0	56,984.9	58,409.5	59,869.7	61,366.5	62,900.6	64,473.1	66,085.0	67,737.1	69,430.5	71,166.3	72,945.4	74,769.1
Population-Based	11,000.0	8,800.0	8,800.0	9,020.0	9,245.5	9,476.6	9,713.6	9,956.4	10,205.3	10,460.4	10,721.9	10,990.0	11,264.7	11,546.4	11,835.0	12,130.9	12,434.2	12,745.0
Regional Paratransit	900.0	428.6	441.4	452.5	463.8	475.4	487.3	499.4	511.9	524.7	537.8	551.3	565.1	579.2	593.7	608.5	623.7	639.3
Gas Tax	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5	3,098.5
Federal Transit Grants																		
5307 - 10% ADA Operating	3,800.0	4,062.5	4,062.5	4,164.1	4,268.2	4,374.9	4,484.3	4,596.4	4,711.3	4,829.1	4,949.8	5,073.5	5,200.4	5,330.4	5,463.6	5,600.2	5,740.2	5,883.7
Other Revenue Sources	0.0	0.0	0.0	35,030.8	47,051.6	66,037.6	82,760.5	101,617.5	122,233.0	144,706.7	168,493.0	193,657.7	219,991.2	248,114.5	277,830.2	309,215.2	342,349.3	377,314.9
Total Operating Revenue	1,126,110.2	1,147,838.1	1,203,233.1	1,227,676.9	1,272,193.4	1,320,888.8	1,369,189.8	1,419,917.6	1,473,495.2	1,530,078.8	1,589,183.6	1,650,940.7	1,715,489.4	1,782,976.7	1,853,558.7	1,927,400.8	2,004,678.3	2,085,577.1
Total Needs	1,126,110.2	1,147,838.1	1,203,233.1	1,227,676.9	1,272,193.4	1,320,888.8	1,369,189.8	1,419,917.6	1,473,495.2	1,530,078.8	1,589,183.6	1,650,940.7	1,715,489.4	1,782,976.7	1,853,558.7	1,927,400.8	2,004,678.3	2,085,577.1
Revenue Minus Needs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Data in this exclude capital project fund (CPF) included in annual appropriation ordinance

CAPITAL PLANS AND PROGRAMS

CAPITAL PLANNING

Overview

To identify the city's capital and operational transportation needs and allocate resources effectively, the SFMTA develops short, medium- and long-range funding strategies.

5-Year Capital Improvement Program

The five-year Capital Improvement Program (CIP) is a financially constrained plan matching projected funding to fleet procurements and infrastructure and facilities investments prioritized in the 20-year Capital Plan. It includes a strategic investment/value analysis used to prioritize projects. It also serves as an implementation tool for the SFMTA Strategic Plan (see Chapter 3, Standards and Policies), as well as other plans and strategies. The CIP is used by local, regional, state, and federal partner agencies that allocate funding to the agency.

The current CIP covers Fiscal Years (FY) 2019 through 2023, and funds improvements including:

- State of Good Repair maintenance and upgrades at an average of $301 million per year, including completion of the replacement of the entire bus and trolley coach fleet
- Street-related improvements, including significant funding for implementation of Vision Zero (Bicycle and Pedestrian Strategies); and
- Muni Forward projects including a number of major corridor projects that will advance through construction over the next five years, including the 22 Fillmore: 16th Street Transit Priority, 28 19th Avenue Rapid Project, and the L Taraval Improvement Project.

The CIP is a living document that is updated as needs change; technical adjustments are also made on an ongoing basis.

10-Year Capital Financial Plan

The current 10-year Capital Financial Plan covers Fiscal Years 2020 through 2029. The first four years are based on the FY 2019-FY 2023 CIP and include updated spending projections based on revised revenue assumptions. The remaining six years are based on forecasts made in the 2015 20-Year Capital Plan and on more recent revenue projections.

20-Year Capital Plan

Guided by the SFMTA Strategic Plan, the Capital Plan is the first step in identifying and prioritizing capital needs to help guide future investment. The purpose of the Capital Plan is to provide a prioritized list of capital needs over a 20-year timeframe. The SFMTA Capital Plan is fiscally unconstrained, meaning that it identifies capital needs for which funding has not yet been identified. Once funding sources are identified, these capital needs can then be addressed through projects in the fiscally constrained five-year CIP and two-year Capital Budget. The SFMTA Capital Plan is updated every two years and was last updated in 2017. In addition to advancing the Agency's Strategic Goals, the 2017 Capital Plan serves to promote projects that advance the city's Transit First and Vision Zero policy goals.

The 2017 Capital Plan identified nearly $22 billion in investment need spanning all potential SFMTA capital investments. Of this total, approximately $9 billion is needed for the ongoing replacement and renewal of the agency's existing assets (state of good repair needs), while the remaining $13 billion is for enhancements and expansions to the current transportation network. The SFMTA is working to address these needs through projects in the FY 2019-2023 CIP.

CAPITAL FUNDING

Funding Sources

In an effort to show local support for transportation, SFMTA and the City and County of San Francisco have undertaken a number of strategies to address transportation funding. The 2013 Mayor's Transportation Task Force recommended issuing two $500 million general obligation bonds, restoring the state vehicle license fee to 2 percent, and implementing a half-cent sales tax dedicated to transportation.

The first of the two general obligation bonds was approved by voters in 2014, and has been programmed in the Capital Financial Plan. The next bond, anticipated for 2024, is not yet programmed and will be included as a separate line item in the Capital Improvement Program if and when approved by San Francisco voters.

Additionally, Former San Francisco Mayor Edwin M. Lee and the Board of Supervisors created the Transportation 2045 (T2045) Task Force in early 2017 to jointly explore the potential for a new transportation revenue measures through the year 2045 to close a $22 billion funding gap for San Francisco's transportation system. The T2045 Task Force developed a menu of options that could help close the transportation funding gap including a sales tax, gross receipts commercial property rent tax increase, vehicle license fee, and gross receipts platform/gig economy tax.

The CIP assumes successful passage to two new revenue measures in the next five years. In September 2018, Governor Jerry Brown signed a bill (A.B. 1184) that authorizes an initiative to be placed before voters in 2019 to impose a 3.25 percent per ride and 1.5 percent per pooled trip tax on ride shares. A.B. 1184 also authorizes a tax on autonomous vehicles that are used commercially and exempts zero-emission vehicles. Proceeds from the tax—if two-thirds of voters approve—would support transportation and infrastructure. The tax is expected to bring in roughly $30 million annually in the first few years.

The CIP also assumes successful passage of another new revenue measure by San Francisco voters in November 2020 to support road maintenance, street safety projects, transit maintenance and expansion, regional transit, and Muni equity and affordability. The exact timing and source of revenue is to be determined. In the event that one or both of the new revenue sources are not realized, those funding sources will be removed and the CIP will be rebalanced by removing or deferring projects to a later date.

Capital Funding by Program

For budgeting and capital planning purposes, SFMTA's capital projects are sorted into capital programs that generally reflect the type of investment. However, due to the multimodal nature of most SFMTA projects, the line-by-line amount for each program does not reflect the total investment in that type of transportation infrastructure or program. For example, many transit enhancement projects also have elements that serve to improve accessibility and infrastructure for people walking and bicycling.

Table 6-1: Anticipated Capital Funding by Source, FY 2020-FY 2029

FUNDING SOURCE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2025 - 2029	PLAN TOTAL
Transportation Bond 2014	$142,867,314	$66,291,260	$0	$0	$0	$0	$0	$0	$0	$0	$0	$209,158,574
Transportation Bond 2022, Facilities*	$0	$0	$0	$83,333,333	$83,333,333	$33,333,333	$0	$0	$0	$0	$33,333,333	$200,000,000
Transportation Bond 2022*	$0	$0	$0	$0	$0	$50,000,000	$83,333,333	$83,333,333	$83,333,333	$0	$300,000,000	$300,000,000
Regional Measure 3	$34,347,113	$24,915,614	$45,230,954	$35,641,502	$0	$17,831,139	$0	$0	$0	$0	$17,831,139	$157,966,322
New Revenue*		$24,560,000	$40,290,074	$45,074,926	$42,870,000	$42,870,000	$42,870,000	$42,870,000	$42,870,000	$42,870,000	$214,350,000	$367,145,000
Cap & Trade*	$1,700,000	$935,000	$51,865,000	$0	$50,000,000	$0	$50,000,000	$0	$50,000,000	$0	$100,000,000	$204,500,000
Revenue Bond	$179,658	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$179,658
Federal	$76,008,910	$355,789,087	$245,416,823	$163,002,783	$356,046,856	$122,615,928	$238,800,766	$203,113,586	$151,897,249	$70,000,000	$786,427,529	$1,982,691,988
State*	$27,853,492	$45,360,311	$31,438,868	$20,033,250	$17,000,000	$17,000,000	$17,000,000	$17,000,000	$17,000,000	$17,000,000	$85,000,000	$226,685,921
Other Local*	$346,355,851	$233,333,495	$114,387,054	$89,002,181	$76,930,000	$92,454,195	$92,454,195	$92,454,195	$92,454,195	$92,454,195	$462,270,974	$1,322,279,557
ERAF1	$38,047,904	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$38,047,904
TOTAL	$667,360,242	$751,184,767	$528,628,773	$436,087,976	$626,180,189	$376,104,595	$524,458,294	$438,771,114	$437,554,777	$222,324,195	$1,999,212,975	$5,008,654,924

Table 6-2: Planned Capital Investment by Program, FY 2020-FY 2029

PROGRAM / PROJECT	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2025 - 2029	PLAN TOTAL	BACKLOG DEFERRED
Communications/IT Infrastructure					$507,428	$22,076,472	$1,138,168	$2,823,280	$270,113	$216,691	$26,524,725	$27,032,153	$47,901,415
Facility	$59,330,750	$44,744,031	$43,709,175	$136,064,835	$99,824,965	$66,767,091	$100,770,964	$53,635,600	$72,525,131	$29,768,562	$323,467,347	$707,141,104	$625,293,336
Fleet	$217,449,989	$230,461,440	$234,469,041	$132,081,796	$427,992,565	$59,960,572	$88,520,634	$132,455,523	$55,201,644	$12,824,500	$348,962,873	$1,591,417,705	$351,156,138
Other	$16,454,758	$5,723,758	$7,517,758	$5,363,758	$965,122	$2,389,840	$3,570,326	$3,404,152	$2,119,904	$1,670,119	$13,154,340	$49,179,496	$12,100,727
Parking	$0	$0	$0	$0	$1,128,809	$4,199,527	$26,923,839	$7,274,641	$2,657,428	$26,859,289	$67,914,725	$69,043,534	$224,822,533
Security	$0	$0	$0	$0	$426,558	$1,174,368	$1,689,094	$1,674,586	$1,004,198	$805,592	$6,347,839	$6,774,397	$21,493,103
Streets	$55,518,014	$76,414,253	$44,051,599	$38,492,776	$15,614,424	$42,988,458	$61,830,323	$61,299,227	$36,759,293	$29,489,196	$232,366,497	$462,457,562	$572,291,421
Taxi	$200,000	$200,000	$200,000	$200,000	$181,722	$190,799	$200,000	$200,000	$200,000	$145,473	$936,271	$1,917,994	$43,019,506
Traffic & Signals	$21,101,185	$8,703,014	$3,571,000	$6,604,986	$6,394,713	$10,079,188	$14,380,651	$13,850,354	$9,988,753	$16,723,867	$65,022,814	$111,397,712	$171,740,380
Transit Fixed Guideway	$74,827,579	$69,367,881	$79,959,045	$89,313,489	$20,359,576	$23,059,715	$15,661,631	$19,939,334	$167,050,500	$35,405,869	$261,117,049	$594,944,619	$519,672,406
Transit Optimization & Expansion	$222,477,967	$315,570,390	$115,151,155	$27,966,335	$52,784,305	$143,218,567	$209,772,663	$142,214,417	$89,777,813	$68,415,036	$653,398,496	$1,387,348,648	$1,960,190,461
TOTAL	**$667,360,242**	**$751,184,767**	**$528,628,773**	**$436,087,976**	**$626,180,189**	**$376,104,595**	**$524,458,294**	**$438,771,114**	**$437,554,777**	**$222,324,195**	**$1,999,212,975**	**$5,008,654,924**	**$4,549,681,426**

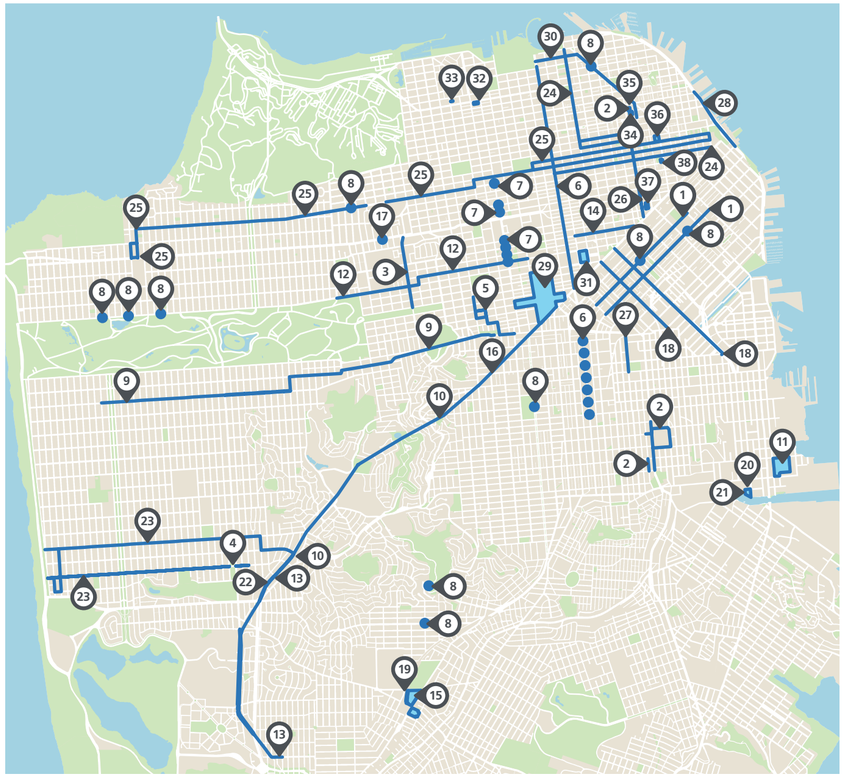
TRANSIT CAPITAL PROGRAMS

6.3.1 Overview

For budgeting and capital planning purposes, SFMTA capital projects are categorized into capital programs reflecting the type of investment. However, due to the multimodal nature of most SFMTA projects, the line-by-line amount for each program does not reflect the total investment in that type of infrastructure or program. For example, many transit enhancement projects also have elements that will improve accessibility and infrastructure for people walking and bicycling.

Following are major transit capital projects, including expansion projects, fleet and facilities upgrades.

Figure 6-1: Capital Projects Completed in FY 2018 (Including Non-Transit Projects)



This list reflects projects in their final phase or completely closed out by time of publication. We deliver projects at many stages. In our commitment to refine projects, we continue to solicit user feedback and projects continue to evolve. Follow projects in design, construction and completion stages at SFMTA.com/Projects.

1. Folsom-Howard Streetscape Project -- Near-Term Completed
2. Potrero Avenue Streetscape Improvement Project
3. Masonic Avenue Streetscape Project
4. Vicente Street Bicycle & Pedestrian Safety Project
5. Wiggle Neighborhood Green Corridor Project
6. South Van Ness Traffic Signal Upgrade
7. Webster Street Pedestrian Countdown Signal Upgrade
8. Contract 63 New Traffic Signals Project
9. Sunset Tunnel Trackway Improvements
10. Twin Peaks Tunnel Track Replacement & Seismic Upgrade
11. Muni Metro East Storage Track Extension Phase II
12. 5 Fulton Rapid -- Mid-route Completed
13. M Ocean View Improvements (Rossmoor Drive & Junipero Serra)
14. Turk Street Safety Project -- Near-Term Completed
15. Green Light Rail Center Track Replacement
16. Upper Market Street Safety Project - Near-Term Completed
17. Geary/Baker Safety Improvements
18. 7th Street & 8th Street Safety Project – Near-Term Completed
19. Balboa Park Eastside Connection
20. Islais Creek Security Enhancements
21. Islais Creek, Maintenance & Operations Facility Phase II
22. West Portal/St. Francis Circle Improvements
23. L Taraval Rapid Project, Safety Improvements - Near-Term Completed
24. Cable Car Gearbox Rehabilitation Project – California and Mason lines
25. 1 California Transit Priority Improvements
26. Powell Street Safety & Sidewalk Improvement Pilot
27. Bryant Street Bike Network Improvement Project
28. Embarcadero Enhancement Project -- Near-Term Completed
29. Octavia Boulevard Enhancement Project, Oak/Octavia Safety Improvements
30. 30 Stockton Transit Priority Project
31. Civic Center Garage PARCS Upgrades
32. Lombard Garage PARCS Upgrades
33. Pierce St. Lot PARCS Upgrades
34. North Beach Garage PARCS Upgrades
35. Vallejo Street Garage PARCS Upgrades
36. Portsmouth Square Garage PARCS Upgrades
37. Ellis-O'Farrell PARCS Upgrades
38. St. Mary's Square Garage PARCS Upgrades

Transit · Parking/Driving · Pedestrian · Bike · Accessibility · Streetscape

Major Expansion Projects

Central Subway

Overview

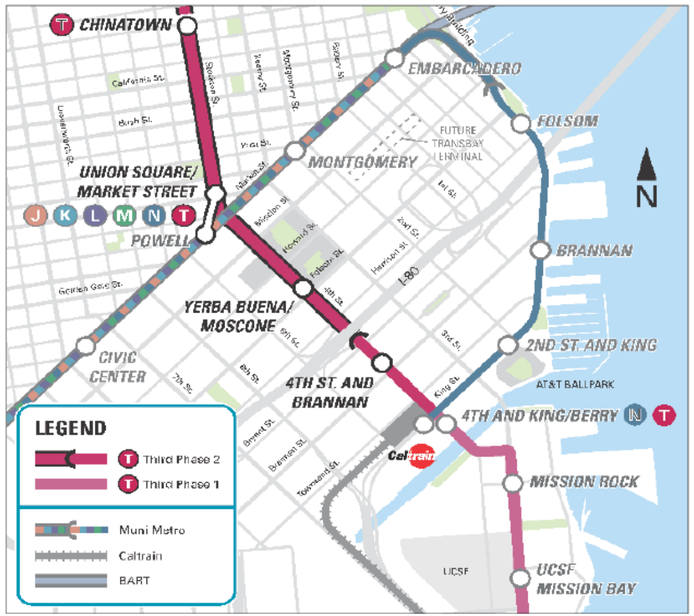
The Central Subway Project is the second phase of the Third Street Light Rail Transit Project. In the first phase of the project, a 5.4-mile light rail line, the Muni Metro T-Third, was built from the Daly City border in San Mateo County to the Caltrain station at Fourth and King streets in Mission Bay. From Caltrain, the T-Third currently continues into the Market Street subway via the Embarcadero. The first segment of the T-Third opened in April 2007.

Phase 2, the Central Subway Project, will realign and extend the T-Third from Caltrain to Chinatown, via central SoMa and Union Square. The line will continue north on Fourth Street to Bryant Street, at which point it will go underground, continuing under Fourth and Stockton streets. The extension will feature four new stations:

- 4th and Brannan Station on Fourth Street between Brannan and Freelon streets
- Yerba Buena/Moscone Station below Fourth Street, with an entrance at Clementina Street
- Union Square/Market Street Station below Stockton Street, with entrances at Geary and Ellis streets
- Chinatown Station below Stockton, with an entrance at Washington Street

When complete, the T-Third line will provide a rapid transit connection from the working-class, transit-reliant neighborhoods in San Francisco's southeast to the rapidly developing Mission Bay and SOMA districts, BART, Union Square shopping and hotels, and the densest neighborhood in the western U.S., Chinatown. It will provide a second route from Caltrain to downtown San Francisco, and it will serve a series of major destinations, including the University of California, San Francisco Mission Bay Campus, UCSF Medical Center at Mission Bay, Chase Center (the future home of the Golden State Warriors basketball team) and Moscone Center (San Francisco's convention center).

Figure 6-2: Central Subway Map



Capital Costs

The capital budget for the Central Subway Project is $1.5783 billion.

Funding Sources

As part of its New Starts funding program, the Federal Transit Administration (FTA) conducted a year-long Central Subway Risk Assessment in 2008-2009. The objectives of the assessment were to complete preliminary engineering for the project, achieve FTA Final Design entry approval, and identify the project's total FTA-eligible capital costs. Over a series of four Risk Assessment Workshops, a detailed risk analysis of the project costs, constructability, and schedule was performed. At the conclusion of this process, the FTA recommended a capital budget of $1.5783 billion and a construction completion date of December 2018. The projected date of completion has since been adjusted to mid-2021 (see "Schedule" below).

The Central Subway Project is being funded by a mix of federal, state and local sources, as shown in the table below. Most funding – a total approved commitment of $942.2 million – will be provided by the FTA's New Starts program. Within the funding plan, the San Francisco County Transportation Authority (SFCTA) pledged $88 million of State Regional Improvement Program (RIP) funding to the project. The SFMTA and its funding partners (SFCTA, MTC) realized that only $26 M of the $88 million would be granted to the project ahead of its completion. To close the $62 million cashflow gap, between November 2018 and January 2019 , the SFMTA, MTC, and SFCTA agreed to a revised funding plan to provide funds in stride with the project's cashflow needs. The revised funding plan follows. All values are in thousands ($000).

Table 6-3: Central Subway Funding Plan (As of February 2019)

FUNDING SOURCES	COMMITTED FUNDING	TOTAL AWARDED FUNDS TO DATE	ENCUMBRANCES (CURRENT)	EXPENDITURES BILLED TO DATE	REMAINING BALANCE
Federal					
FTA New Starts	$942,200	$942,200	$201,496	$677,633	$63,071
CMAQ	$41,025	$41,025	$0	$41,025	$0
One Bay Area Grant	$15,980	$0	$0	$0	$0
Federal Subtotal	$999,205	$983,225	$201,496	$718,658	$63,071
State					
TCRP	$14,000	$14,000	$0	$14,000	$0
LCTOP	$4,000				$0
State RIP	$12,498	$12,498	$0	$7,054	$5,444
Prop 1B Infra-structure Bonds	$308,601	$308,601	$0	$307,793	$808
Prop 1A High Speed Rail Bond	$61,308	$61,308	$0	$61,308	$0
State Subtotal	$400,407	$396,407	$0	$390,155	$6,252
Local					
Prop K[3]	$147,597	$138,692	$0	$123,975	$14,717
Pop Baseline	$22,930	$0	$0	$0	$0
Operating	$4,970	$0	$0	$0	$0
TSF	$3,191	$0	$0	$0	$0
Local Subtotal	$178,688	$138,692	$0	$123,975	$14,717
TOTAL	$1,578,300	$1,518,324	$201,496	$1,232,788	$84,040

Table 6-4: Central Subway Capital Costs (As of February 2019, in Millions of Dollars)

PROJECT CAPITAL ELEMENTS (APPLICABLE LINE ITEMS ONLY)	YOE DOLLARS TOTAL
10 Guideway & Track Elements (1.7 miles)	$284
20 Stations, Stops, Terminals, Intermodal (4)	$581
40 Sitework & Special Conditions	$226
50 Systems	$96
CONSTRUCTION SUBTOTAL (10 - 50)	$1,187
60 ROW, Land, Existing Improvements	$32
70 Vehicles (4)	$17
80 Professional Services (Applies To Cats. 10-50)	$331
SUBTOTAL (10 - 80)	$1,567
90 Unallocated Contingency	$12
Total Project Cost (10 - 100)	$1,578

Operating Costs

Extension of the T-Third is projected to increase the SFMTA's annual operating costs by approximately $20.8 million in its first year of operation – less than 0.25 percent of the agency's total budget – and by $57.5 million (in current-year dollars) by 2030.

Schedule

The Central Subway Project has been in development for well over a decade. In that time, major project milestones have included:

- 2005: The project's supplemental environmental review process begins. More than 200 public meetings are held before the project receives environmental clearance from the FTA in November 2008.
- 2010: Utility relocation begins at the future site of the Yerba Buena/Moscone Station. In 2012, preparation for tunneling commences in SoMa, Union Square and North Beach.
- 2012: The FTA grants approval for $942.2 million in New Starts funding.
- 2013: Construction begins on the subway tunnel and stations.
- 2015: Construction of the tunnel is completed on-time and under budget. The tunnel contract is awarded Outstanding Transportation Project in the State of California by the American Society of Civil Engineers.

Revenue service in the Central Subway segment of the T-Third Line is scheduled to begin in 2021.

Corridor Land Uses

The SFMTA has collaborated with the San Francisco Planning Department and San Francisco County Transportation Authority (SFCTA) to better understand and prepare for future growth in the T-Third corridor.

BAYVIEW/HUNTERS POINT AND MISSION BAY

Phase 1 of the T-Third was designed to accommodate projected growth in population, employment and ridership in the eastern/ southeastern neighborhoods of Mission Bay, Dogpatch, Bayview/Hunters Point and Visitacion Valley. This includes the new University of California, San Francisco campus and medical center in Mission Bay as well as the Chase Center basketball arena now construction across Third Street and the major redevelopment projects underway at Hunters Point, Candlestick, and the Schlage Lock site in Visitacion Valley, adjacent to the T-Third terminus.

CENTRAL SOMA

The Central Subway Project will add T-Third stops in South of Market at Fourth and Brannan streets and at Fourth and Folsom streets (Yerba Buena/ Moscone Station). Both stops are within the area covered by the Central SoMa Plan developed by the Planning Department and adopted by the Planning Commission in Spring 2018. Under the plan, an additional 33,000 jobs and 8,300 housing units are expected to be added in an area bounded by Second, Townsend, and Sixth streets, with a northern boundary generally in the area of Folsom and Howard streets. The T-Third will bisect this area, and will support the dense, mixed-use transit-oriented development envisioned by the Central SoMa Plan.

Figure 6-3: Central SoMa Plan Area

LAND ACQUISITION

To facilitate construction of the Central Subway, the SFMTA acquired several properties adjacent to the . Yerba Buena/Moscone, Union Square/Market Street and Chinatown stations. In order to accommodate machinery and equipment needed for construction, the agency also acquired easement rights from some property owners. Land adjacent to Yerba Buena/Moscone Station will be used for an affordable housing development, and the site of the Chinatown station will accommodate, in addition to the station entrance itself, a public plaza and a small retail component.

Transit Optimization and Expansion

Van Ness Improvement Project

Overview

The Van Ness Improvement Project will introduce bus rapid transit (BRT) service to Van Ness Avenue between Lombard and Market streets, as well as South Van Ness Avenue between Market and Mission streets. Transit elements of the project include exclusive center- or median-running transit-only lanes, high quality BRT boarding platforms, wider Rapid stop spacing, and Transit Signal Priority. The project also includes improvements to pedestrian access, streetscape upgrades, lighting and utility replacement, repaving, and other non-transit elements.

Existing transit service on Van Ness is provided by Muni Lines 47 Van Ness, 49 Van Ness-Mission, 76X Marin Headlands Express and 90 Owl, as well as Golden Gate Transit express buses from Marin and Sonoma counties. Although the corridor is only about two miles long, it sees about 16,000 boardings per weekday, a figure that is projected to grow to 25,000 to 30,000 by the year 2035.

Implementation of BRT service along Van Ness is projected to reduce transit travel times by 32 percent, and to improve schedule reliability.

Figure 6-4: Van Ness BRT Map

Capital Costs and Funding Sources

The estimated capital cost for the Van Ness Improvement Project, including Van Ness BRT as well as pedestrian, streetscape and other elements, is approximately $314.3 million. Funding for the project comes from a variety of sources including FTA Small Starts program and other formula funding, San Francisco Public Utilities Commission (SFPUC) funds, SFMTA revenue bonds, and Proposition K sales tax revenues. Estimated costs and funding sources are shown below. The "core" BRT project accounts for $225.2 million of this total.

Table 6-5: Van Ness Improvement Project Core Capital Element Costs (in Millions of Dollars)

PROJECT CAPITAL ELEMENTS (APPLICABLE LINE ITEMS ONLY)	YOE DOLLARS TOTAL
10 Guideway & Track Elements (2 miles)	$6.18
20 Stations, Stops, Terminals, Intermodal (9)	$4.85
30 Support Facilities: Yards, Shops, Administrative Buildings	$0
40 Sitework & Special Conditions	$93.41
50 Systems	$44.85
Construction Subtotal (10 - 50)	$149.3
60 ROW, Land, Existing Improvements	$0
70 Vehicles (4)	$0
80 Professional Services (Applies To Categories 10-50)	$58.92
Subtotal (10 - 80)	$208.2
90 Unallocated Contingency	$17.01
Subtotal (10 - 90)	$225.2
100 Finance Charges	$0
Total Project Cost (10 - 100)	$225.2

Operating Costs

The table below shows projected annual operating costs for Van Ness BRT, based on the project's environmental review. The project's Locally Preferred Alternative or LPA is a combination of Alternatives 3B and 4B; the LPA's operating costs should be similar to these options. As the table notes, Van Ness BRT will reduce operating costs by 16 to 32 percent, as its travel time savings will translate into cost savings (which could then be reinvested into improved frequency in this or other corridors).

Van Ness BRT would require a modest increase in maintenance costs, for reasons related to roadway and transit-only lane maintenance, tree trimming near overhead wires, and increased station-related costs, including maintenance of ticket vending machines. As with operating costs, maintenance costs would be similar to those shown for Alternatives 3B and 4B.

Table 6-6: Van Ness BRT Estimated Operating Costs

COSTS	NO BUILD ALT.	BUILD ALT. 2	BUILD ALT. 3	BUILD ALT. 3 (WITH DESIGN OPTION B)	BUILD ALT. 4	BUILD ALT. 4 (WITH DESIGN OPTION B)
Annualized Revenue Hour Vehicles Operating Costs*	$8,300,000	$6,900,000	$6,100,000	$5,600,000	$6,100,000	$5,600,000
Other Incremental Annualized O&M Costs**	n/a	$200,000	$400,000	$400,000	$300,000	$300,000
TOTAL	$8,300,000	$7,100,000	$6,500,000	$6,000,000	$6,400,000	$5,900,000

Schedule

Environmental review for Van Ness BRT was completed in December 2013, and detailed design in 2016. Construction began in October 2016, and revenue service is projected to begin in 2021.

Corridor Land Uses

Although there are no specific land use changes associated with the project, a great deal of development has been taking place along the Van Ness corridor in advance of project completion. This has included development of a new California Pacific Medical Center campus at Geary Street, where Van Ness BRT will intersect with Geary BRT (see below). Additionally, there are numerous city-owned or controlled properties in the corridor that may become redevelopment sites at some point.

Geary Rapid Project

Overview

Existing bus service on the Geary corridor is provided by Muni Lines 38 Geary, 38R Geary Rapid, 38AX Geary A Express, 38BX Geary B Express, and 38 Owl, as well as Golden Gate Transit express buses from Marin County. With a combined total of more than 54,000 average weekday boardings, Geary is the one of the busiest bus corridors in the Bay Area and in North America. The corridor is also part of the city's Vision Zero high-injury network, with a collision rate eight times the citywide average. To improve transit performance and pedestrian safety in this important corridor, improvements will be delivered via two projects: the Geary Rapid Project, described here, encompasses improvements between Market and Stanyan streets, while the Geary Boulevard Improvement Project, described in the next section, will extend improvements west to 34th Avenue.

Geary Rapid Project transit priority improvements include side-running transit-only lanes, optimized stop spacing for both local and Rapid service, bus bulbs, upgraded TSP, and bus stop amenities. The project also includes major pedestrian safety improvements including new pedestrian bulbs, new signalized pedestrian crossings, pedestrian countdown signals, daylighting, enhanced medians, and retimed signals. The Geary Rapid Project received final parking and traffic legislation approval at the SFMTA Board in August 2018 and implemented near-term improvements in Fall 2018, including extending side-running transit-only lanes on most blocks from Gough to Stanyan streets, and implementing bus stop changes and pedestrian safety treatments.

The project is coordinated with infrastructure work sponsored by partner city agencies including SF Public Works' sponsored roadway repaving, SF Public Utilities Commission sponsored water and sewer main upgrades, and Department of Technology sponsored fiber optic conduit. This utility work began in January 2019.

Figure 6-5: Geary Rapid Project and Geary Boulevard Improvement Project Map

Capital Costs and Funding Sources

The estimated capital cost for the Geary Rapid Project is approximately $35 million and is fully funded in the CIP.

Schedule

Environmental review and parking and traffic legislation was completed in 2018. The Geary Rapid Project's construction is now underway, with a projected completion date of 2021.

Geary Boulevard Improvement Project

Overview

The Geary Boulevard Improvement Project will extend transit priority improvements in the Geary corridor (see "Geary Rapid Project," above) from Stanyan Street west to 34th Avenue. Between Stanyan and 27th/28th Avenue, the existing center median will be replaced with a dual median with center-running transit-only lanes. Side-running lanes would continue to 34th Avenue. Local and Rapid service would be consolidated in the center-running segment, meaning all local and Rapid buses would serve the same stops, and there would be 2 additional Rapid stops and 6 fewer local stops than existing conditions. Other scope elements includes traffic signal upgrades, improved passenger amenities, pedestrian bulb-outs, improved median refuges, new lighting, landscaping, and trees.

Capital Costs and Funding Sources

The estimated capital cost for the Geary Boulevard Improvement Project is approximately $235 million. The project may apply for an FTA Small Starts grant of up to $100 million.

Schedule

Environmental review was completed in 2018. The Geary Boulevard Improvement Project is current in the preliminary design phase. Construction would begin no sooner than 2021 and is subject to securing full funding for construction.

Better Market Street

Overview

Better Market Street is an integrated effort to improve both multimodal mobility and the public realm on San Francisco's main street. While a series of improvements have been made to Market Street in recent years, it was last comprehensively redesigned in the 1980s. The project extends from Steuart Street near the Embarcadero to Octavia Boulevard, and is a collaborative effort led by the Department of Public Works and including the SFMTA, Planning Department, Public Utilities Commission, Office of Economic and Workforce Development, and SFCTA.

The project proposes to improve the speed and reliability of surface Muni service by extending Muni-only lanes, constructing larger boarding islands, a new F-loop, and providing a new continuous sidewalk-level protected bikeway to minimize conflicts between bicyclists and transit. Additionally, there will be improvements to pedestrian space and loading with private auto restrictions in order to enhance safety and transit reliability.

Figure 6-6: Better Market Street Map

Capital Costs and Funding Sources

As the project is still undergoing environmental review, cost estimates will be refined. However, an initial estimate of $504 million has been developed. Phase 1 is currently at 30 percent design and has a cost estimate of $193 million.

Schedule

Environmental review and design of Phase 1 are scheduled for completion in 2019. Construction of Phase 1 is scheduled to begin in 2020, and initial improvements are scheduled to be completed by the end of 2022.

Southeast Muni Expansion & Harney-101 Transit Crossing

Several major development projects are underway or planned in southeastern San Francisco that will increase demand for transit service in the area. In response to this, the SFMTA is developing a Southeast Muni Expansion plan that will increase service to these areas as well as the nearby Bayview, Hunters Point and Visitacion Valley neighborhoods starting in 2021 (date may change, dependent on development project buildout schedules).

The additional transit service needed in the area, particularly on future routes serving development sites at Candlestick Point and Executive Park as well as existing Bayview neighborhoods, will require an improved crossing of Highway 101 between Candlestick Point and Visitacion Valley. The Harney-101 Transit Crossing will improve the existing, narrow underpass of Highway 101 at Alana Way to accommodate growth in both transit service and traffic, as well as to provide enhanced pedestrian and bicycle connectivity. Preliminary concepts are now in development.

Muni Forward Projects

Muni Forward is SFMTA's program to improve transit service in San Francisco by planning, designing, and implementing 1) "transit priority" changes to the design of streets based on an evolving understanding of best practices in reducing delay, and 2) changes to service reflecting evolving patterns of demand.

Muni Forward projects now in final design, under construction or already completed are described in Chapter 4, Service Evaluation. Projects now in planning, or scheduled to begin planning soon, would complement previous projects completed in the same corridors, and include:

- The remaining mid-route (6th to 25th avenues) segment of the 5 Fulton Rapid Project, which will complement the improvements already completed in the Fulton corridor to the east and west.
- The downtown (11th to Spear streets) segment of the 14 Mission Rapid Project, which will extend the improvements made in the Mission District.
- The 8 Bayshore Visitacion Valley Transit Priority Project between Arleta Avenue and Santos Street, which will build on the San Bruno Avenue Multimodal Improvement Project.
- A new stop on the inbound E and F routes at Beach Street and the Embarcadero, near Pier 39, providing greater flexibility for historic streetcar operations to Fisherman's Wharf.

Projects scheduled to begin planning in future years include those listed in the FY 2019-2023 Capital Improvement Program's Transit Optimization category, shown below. Other projects may be identified in the future depending on available funding and based on criteria including whether a segment is part of the Rapid Network, ridership, and other characteristics.

Table 6-7: FY2019-FY 2023 CIP Transit Optimization Projects (Rounded to Nearest $50,000)

PROJECT	PLANNING-LEVEL COST ASSUMPTIONS
1 California Transit Priority Project	$860,000
14 Mission: Downtown (11th Street to Spear) Transit Priority Project	$16,750,000
14 Mission: Inner Mission Transit & Streetscape Enhancements	$1,900,000
14 Mission: Mission Street and South Van Ness Avenue Transit Priority Project	$4,200,000
14 Mission: Outer Mission (South of Randall) Transit Priority Project	$300,000
22 Fillmore: 16th Street Transit Priority Project	$68,100,000
22 Fillmore: Fillmore Street Transit Priority Project	$150,000
27 Bryant: Transit Reliability Project	$8,250,000
28 19th Avenue Rapid Project (South of Golden Gate Park)	$20,800,000
29 Sunset Muni Forward	$150,000
30 Stockton: 3rd Street Transit Priority Project	$11,500,000
30 Stockton: 3rd Street TPP Early Implementation	$2,500,000
30 Stockton: Chestnut Street Transit Priority Project	$5,150,000
30 Stockton: Van Ness Transit Priority Project	$1,500,000
5 Fulton: Arguello to 25th Ave Rapid Project	$9,100,000
5 Fulton: East of 6th Ave (Inner) Rapid Project	$9,150,000
7 Haight-Noriega: Haight Street Transit Priority Project	$15,300,000
7 Haight-Noriega: West of Stanyan Transit Priority Project	$450,000
8 Bayshore: Geneva Avenue Transit Priority Project	$350,000
8 Bayshore: Visitacion Valley (Santos to Arleta) Transit Priority Project	$8,650,000
Bayshore Caltrain Station Upgrades	$1,500,000
Bus Transit Signal Priority	$27,400,000
Cable Car Traffic Calming & Safety Improvements	$2,100,000
Cable Car Traffic Signal Preempts	$2,250,000
E/F Line Improvements: Extension to Aquatic Park	$950,000
Embarcadero Pocket Track	$15,200,000

PROJECT	PLANNING-LEVEL COST ASSUMPTIONS
Equity Strategy Improvements	$3,100,000
Geneva/San Jose M-Line Terminal	$1,850,000
J Church Muni Forward	$800,000
K Ingleside Transit Priority Project	$1,000,000
King Street Substation Upgrades	$23,000,000
L Taraval Improvement Project	$105,000,000
M Oceanview Muni Forward	$1,050,000
Major Corridor Project Development	$2,950,000
Mission Bay Loop	$20,450,000
M-Line Park Merced Surface Realignment	$99,300,000
Muni Forward Corridors: Planning & Conceptual Engineering	$3,350,000
Muni Forward OCS Spot Improvements	$2,600,000
Muni Roadway Elevation Improvements	$14,550,000
Muni Subway Expansion Project	$3,950,000
N Judah: Judah Street Transit Priority Project	$2,300,000
Powell Street Plaza & Transit Reliability Improvements	$11,650,000
Program: Accessible Light Rail Stops	$5,000,000
Program: Accessible Stops Spot Improvements	$1,500,000
Program: Collision Reduction Program: Spot Improvements	$9,000,000
Program: Muni Metro Subway Station Enhancements	$18,350,000
Rail Transit Signal Priority	$19,150,000
Red Transit-Only Lane Lifecycle Replacement and Implementation	$4,600,000
Surface Signaling on The Embarcadero & Third Street	$11,100,000
Transit Reliability Spot Improvements	$7,950,000
Transit Stop Enhancement Program	$2,850,000
UCSF Platform and Track Improvement Project	$51,700,000
Reserve Transit Optimization & Expansion	$118,050,000

Fixed Guideway

Muni's fixed guideway rail network, including Muni Metro light rail, historic streetcar and cable car lines, includes more than 70 miles of track and accounts for almost 30 percent of systemwide ridership. The Fixed Guideway CIP includes projects to maintain, replace, and upgrade rail infrastructure ranging from station improvements to train control technology upgrades, track replacement, maintenance facility upgrades, maintenance of overhead wires, and rail grinding.

These projects directly support transit service, and can be complex to deliver without disruption to the riding public. We work collaboratively with our engineering and maintenance teams to identify methods of delivery that ensure the work is completed with as little disruption as possible. The program is divided into two types of projects: regular capital construction projects that replace and expand our system. These projects are typically large in scale and rely on a combination of internal staff and external contractors for delivery. The second type of projects are programmatic items that provide funds for work on critical systems prioritized by impact on the system. These projects tend to be very small in scope and are typically delivered by our own staff.

State of Good Repair Programmatic Lines

To ensure that we are making progress on the critical maintenance of our systems, we earmark capital funds for support of eight different programs: Special Trackwork and Surface Rail, Traction Power, Surface Track Pavement Repair, Rail Signal Upgrades, Track Fastener and Rail Replacement, Subway Electrical and Mechanical Systems, Track Switch Machine Replacement, and Ultrasonic Rail Testing.

Special trackwork concerns curved track or other specialty track that tends to wear at a rate inconsistent with regular rail, it also often requires special design and engineering as it must be specially made for its unique location. Track switch machines provide the ability for a train to be routed through any of the system's three portals, and permits trains to turn around at special locations. Track switches are one of the largely invisible, but critical system that our passengers rely on for smooth operations. Our ultrasonic rail testing program validates the quality of rails in our 37 miles of subway to determine the location of any defects or cracks in the rail. These results are used by our Maintenance of Way team to monitor track integrity and plan track upgrades throughout the system.

Fleet

Overview

Muni has a fleet of more than 1,000 transit vehicles. To avoid both service disruptions and costly repairs, in recent years the SFMTA has prioritized renovating or replacing vehicles as they near the end of their useful life. The agency has also prioritized expanding the fleet to alleviate overcrowding and accommodate growing demand.

Table 6-8: Coach, LRV and Cable Car Fleet Inventory

MANUFACTURER (YEAR IN SERVICE)	ID#	CROWDING CAPACITY SERVICE STANDARD	WHEEL-CHAIR CAPACITY	MODE OF POWER	RETIREMENT YEAR
32-Foot Motor Coach (30)					
Orion (2007)	8501-8530	38	2	LF Hybrid	2020
40-Foot Motor Coach (385)[1]					
Neoplan (2000-2003)	8102-8371[2]	51	2	Diesel	2018-2019
Orion (2006-2007)	8401-8456	51	2	LF Hybrid	2018-2019
New Flyer (2013-2014)	8601-8662, 8701-8750	51	2	LF Hybrid	2023-2026
New Flyer (2016-2019)	8751-8780, 8800-8957	51	2	LF Hybrid	2028-2030
60-Foot Articulated Motor Coach (224)					
New Flyer (2015-2018)	6500-6730	81	3	LF Hybrid	2027-2029
40-Foot Trolley Coach (213)					
ETI (2001-2004)	5405-5796[2]	51	2	Electric	2018-2019
New Flyer (2017-2019)	5701-5800[2]	51	2	Electric	TBD

1. *Does not include 23 vehicles in training fleet.*
2. *Non-consecutive numbers.*
3. *The total LRV fleet was adjusted to account for major repairs. Two vehicles will not return to service until being replaced in 2021.*
4. *As of August 2019, the SFMTA has taken receipt of 61 vehicles as part of the currently ongoing procurement of 68 Siemens LRV4 vehicles. The SFMTA anticipates taking receipt of the remaining 7 vehicles of the procurement by the end of 2019.*
5. *Due to the nature of the historic vehicles, they are not retired. Instead, these vehicles are rehabilitated to a like-new condition as they age.*
6. *There are two #19 cars. One #19 is a Powell car. The other is the Sacramento-Clay Car #19. The Sacramento-Clay Car #19 and O'Farrell, Jones & Hyde Car #42 are used exclusively for special events.*

Revenue Vehicle Fleet

Fixed-Route Fleet Inventory

The Muni fixed-route transit fleet is among the most diverse in the world, featuring light rail vehicles, cable cars, streetcars, trolley coaches, and motor coaches. The tables on the following pages inventory the Muni transit fleet.

MANUFACTURER (YEAR IN SERVICE)	ID#	CROWDING CAPACITY SERVICE STANDARD	WHEEL-CHAIR CAPACITY	MODE OF POWER	RETIREMENT YEAR
60-Foot Articulated Trolley Coach (93)					
New Flyer (2015-2016)	7201-7260	81	2	Electric	2027
New Flyer (2017-2018)	7261-7293	81	2	Electric	2028
Light Rail Vehicles (217)[3]					
Breda (1997)	1400-1424	168	4	Electric	2021
Breda (1998)	1425-1451	168	4	Electric	2022
Breda (1999)	1452-1475	168	4	Electric	2023
Breda (2000)	1476-1481	168	4	Electric	2024
Breda (2001)	1482-1508	168	4	Electric	2025
Breda (2002)	1509-1534	168	4	Electric	2026
Breda (2003)	1535-1550	168	4	Electric	2027
Siemens (2017)	2006	168	4	Electric	2042
Siemens (2018)	2005, 2008-2032, 2034-2047, 2051	168	4	Electric	2043
Siemens (2019)[4]	2001-2004, 2007, 2033, 2048-2050, 2052, 2068	168	4	Electric	2044
Cable Car (42)					
Powell Cars	1-28	55	n/a	Electric	n/a[5]
California Cars	49-60	63	n/a	Electric	n/a[5]
Special Service	19[6], 42	*	n/a	Electric	n/a[5]

Table 6-9: Historic Streetcar Fleet Inventory

CAR NUMBER	ORIGINAL CITY/ TRANSIT COMPANY (YEAR BUILT)	CURRENT LIVERY	OPERATIONAL STATUS	PASSENGER CAPACITY
San Francisco Historic Streetcars				
1	San Francisco Municipal Railway (1912)	San Francisco Municipal Railway	Operational (for Limited Service)	48 seats
130	San Francisco Municipal Railway (1914)	World War II - era blue and gold livery	Operational (for Limited Service)	50 seats
162	San Francisco Municipal Railway (1914)	San Francisco Municipal Railway	Under Restoration	50 seats
578	Market Street Railway Company (1896)	Market Street Railway Company	Operational (for Limited Service)	26 seats
798	Market Street Railway Company (1924)	Market Street Railway Company	Awaiting Restoration	50 seats
C-1	Muni Motor Flat No. C-1 (1916)	San Francisco Municipal Railway	Operational; performs maintenance/ construction	Does not carry passengers
Unique Historic Streetcars				
106	Moscow/Orel, Russia (1912)	n/a	Awaiting Restoration	n/a
151	Osaka, Japan	n/a	Awaiting Restoration	36 seats
189	Porto, Portugal (1929)	Porto, Portugal	Awaiting Restoration	23 seats
228	Blackpool Tramways, England (1934)	Blackpool, England	Operational (for Limited Service)	44 seats
233	Blackpool Tramways, England (1934)	Blackpool, England	Awaiting Restoration	44 seats
351	Johnstown Traction Company, Pennsylvania (1926)	Johnstown, Pennsylvania	Awaiting Restoration	44 seats
496	Melbourne & Metropolitan Tramways Board, W2 Class (1928)	City of Melbourne, Australia	Operational (for Limited Service)	52 seats
578-j	Kobe City Railways, Kobe, Japan (1927)	Kobe & Hiroshima, Japan	Awaiting Restoration	36 seats
586	Melbourne & Metropolitan Tramways Board, W2 Class (1929)	n/a	In Storage; Retired	n/a
737	Brussels, Belgium (1952)	Zurich, Switzerland	Operational	35 seats
913	New Orleans Public Service, Inc.(1923)	n/a	Awaiting Restoration	54 seats
916	Melbourne & Metropolitan Tramways Board, SW6 Class (1946)	City of Melbourne, Australia	In Acceptance	44 seats
952	New Orleans Public Service, Inc. (1923)	New Orleans, Louisiana	Operational (for Limited Service)	54 seats
3557	Hamburger Hochbahn Aktiengesellschaft (1954)	Hamburg, Germany	Awaiting Restoration	31 seats
Peter Witt Class (Milan Cars)				
1807, 1811, 1814, 1815, 1818, 1834, 1856, 1859, 1888, 1893, 1895	Milan, Italy (1928)	Original 1920s Milan yellow and white livery (2); 1930s-1970s Milan two-tone green livery (3); Current orange Milan livery (6)	Operational (6); Awaiting Restoration (5)	33 seats
Presidents' Conference Committee (PCC) Streetcars				
1006 – 1011, 1015	San Francisco Municipal Railway (1948)	San Francisco Municipal Railway (1950s); Philadelphia Suburban Transportation Co.; San Francisco Municipal Railway "Wings;" Dallas Railway & Terminal Company; San Francisco Municipal Railway "Magic Carpets;" Market Street Railway Company; San Francisco Municipal Railway (1950s); Illinois Terminal Railroad	"Big Ten" Class: Operational (4); Under Restoration (3)	46 seats
1026, 1027, 1028, 1033, 1034, 1039	San Francisco Municipal Railway (1951-52)	n/a	"Baby Ten" Class: In Storage; Retired 1982 (6)	n/a
1040	San Francisco Municipal Railway (1952)	San Francisco Municipal Railway (1950s)	"Baby Ten" Class: Operational (1)	58 seats
1050-1053, 1055-1063	Philadelphia Transportation Company (1946-1948)	San Francisco Municipal Railway (1950s); San Francisco Municipal Railway (1960s); Los Angeles Railway; Brooklyn, New York; Philadelphia, Pennsylvania (2); Kansas City, Missouri-Kansas; Cincinnati, Ohio; Chicago, Illinois; Boston Elevated Railway; Philadelphia Rapid Transit Company; Pacific Electric; Louisville, Kentucky; Baltimore, Maryland	1050 Class: Operational (8); In Acceptance (3); Under Restoration (1); Awaiting Restoration (1)	47 seats
1070 - 1080	Twin City Rapid Transit Company (1946-1947)	Newark, New Jersey; Minneapolis-St. Paul, Minnesota; Mexico City; El Paso, Texas & Juarez, Mexico; Toronto, Canada; Cleveland, Ohio; Washington, D.C.; Birmingham, Alabama; San Diego, California; Detroit, Michigan; Los Angeles Transit Lines	1070 Class: Operational (11)	50 seats
1103, 1130, 1139, 1158, 1160, 1168, 1704	St. Louis Public Service Company (1946)	San Francisco Municipal Railway; vehicle 1704 is in St. Louis livery	1100 Class: In Storage; retired 1982 (T18)	n/a
2147	SEPTA-Philadelphia	n/a	Awaiting Restoration	47

Note: Due to the nature of the historic vehicles, they are not retired. Instead, these vehicles are rehabilitated to a like-new condition as they age

Table 6-10: Fleet Replacement & Expansion, 32-foot Motor Coach (Low-Floor Hybrid)

	CALENDAR YEAR													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Procurement (Accepted)														
Vehicles Replaced														
Expansion Vehicles (Contracted Vehicles)														
Total Fleet at End of Year	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Table 6-11: Fleet Replacement & Expansion, 40-foot Motor Coach (Low-Floor Hybrid)

	CALENDAR YEAR													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Procurement (Accepted)	76	40	28	9			80	8	32		41		91	68
Vehicles Replaced	69	40	28				80		32		56		76	68
Expansion Vehicles (Contracted Vehicles)	7	-21	-61					8			-15		15	
Total Fleet at End of Year	406	385	324	333	333	333	333	341	341	341	326	326	341	341

Table 6-12: Fleet Replacement & Expansion, 60-foot Motor Coach (Low-Floor Hybrid)

	CALENDAR YEAR													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Procurement (Accepted)	34	64					25	20		48	79	76	35	41
Vehicles Replaced	34	9								48	79	76		21
Expansion Vehicles (Contracted Vehicles)	-12	55					25	20					35	20
Total Fleet at End of Year	169	224	224	224	224	224	249	269	269	269	269	269	304	324

Table 6-13: Fleet Replacement & Expansion, 40-foot Trolley Coach (Low-Floor Trolley)

	CALENDAR YEAR													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Procurement (Accepted)	0	82	103											
Vehicles Replaced	0	60	103											
Expansion Vehicles (Contracted Vehicles)	-31	22	-28											
Total Fleet at End of Year	191	213	185	185	185	185	185	185	185	185	185	185	185	185

Table 6-14: Fleet Replacement & Expansion, 60-foot Trolley Coach (Low-Floor Trolley)

	CALENDAR YEAR													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Procurement (Accepted)	8	25												12
Vehicles Replaced														12
Expansion Vehicles (Contracted Vehicles)	8	25												
Total Fleet at End of Year	68	93	93	93	93	93	93	93	93	93	93	93	93	93

Table 6-15: Fleet Replacement & Expansion, Light Rail Vehicles

	YEAR IN SERVICE													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Procurement (Accepted)	1	41	26		28	26	26	36	35	17[2]	18[2]	10[2]		
Vehicles Replaced					28	26	26	36	35					
Expansion Vehicles (Contracted Vehicles)	1[1]	41[1]	26[1]							17[2]	18[2]	10[2]		
Total Fleet at End of Year[1]	150[3]	191[3]	217[3]	217[3]	219	219	219	219	219	236	254	264	264	264

1. *Siemens LRV4 cars first entered service in 2017 as part of the Agency's 68-vehicle fleet expansion. The initial 42 vehicles of the expansion were procured in 2017 (1) and 2018 (41). The SFMTA anticipates taking receipt of the remaining 26 vehicles of the current expansion by the end of 2019..*
2. *The SFMTA has an option, which may or may not be exercised, to purchase 45 additional vehicles for a fleet expansion. If this option is exercised, the vehicles procured through this purchase would be expected to be utilized to meet anticipated increases in service demand.*
3. *The total LRV fleet was adjusted for 2017-2020 to account for major repairs. Two vehicles will not return to service until being replaced in 2021.*

Table 6-16: Fleet Rehabilitation

MANUFACTURER (YEAR IN SERVICE)	ID#	PERSON CAPACITY	WHEELCHAIR CAPACITY	MODE OF POWER	REHABILITATION YEAR	ESTIMATED COST
40-Foot Motor Coach						
New Flyer (2013)	8601-8662	51	2	LF Hybrid	2019	$371,100/ vehicle ($2017)
New Flyer (2013-2014)	8701-8750	51	2	LF Hybrid	2020	$371,100/ vehicle ($2017)
60-Foot Articulated Motor Coach						
New Flyer (2015)		81	3	LF Hybrid	2021	$539,000/ vehicle ($2017)

Table 6-17: Spare Ratios, As of December 2018

SUBFLEET	SPARE RATIO
32-Foot Motor Coach	20%
40-Foot Motor Coach	34%
60-Foot Articulated Motor Coach	33%
40-Foot Trolley Coach	36%
60-Foot Articulated Trolley Coach	45%
Light Rail Vehicles	33%

Vehicle Replacement and Expansion

The 2014 SFMTA Transit Fleet Management Plan (TFMP) maps out a systematic approach to planning for the replacement and expansion of Muni's fleet of transit vehicles through 2040. According to SFCTA travel demand forecasts, Muni ridership will grow to more than one million weekday average boardings by 2040, an increase of more than 40 percent over today. The TFMP features a service plan designed to accommodate this growth, which in turn serves as a basis for projections of necessary growth in the vehicle fleet.

The TFMP also identifies the additional vehicles needed to operate the increased service associated with opening of the Central Subway in 2019. Identifying and scheduling the procurement of these vehicles has allowed the SFMTA to spread procurements more evenly, and ensure that major maintenance investments are not needed all at the same time. Additionally, the detailed fleet planning in the TFMP has made the procurement process more efficient by allowing the agency to partner with other agencies on procurements to reduce unit costs and create shared demand for future parts. Lastly, the long range review of fleet needs informed the identification of long-term storage and maintenance facility needs and positioned the agency to develop a detailed five-year CIP to jump-start the implementation of the fleet and facilities programs.

Per MTC policy, the SFMTA plans procurements on a calendar year cycle. Funding for the replacement and expansion vehicles detailed in the following pages is programmed by the SFMTA during each fiscal cycle.

NEAR-TERM VEHICLE REPLACEMENT

The SFMTA has nearly completed the full replacement of the entire rubber tire fleet (motor coach and trolley coach), providing a significant improvement in comfort and reliability.

Replacement Of 32' Motor Coaches

Beginning in 2020 the SFMTA will see the replacement of the last fleet of rubber tire vehicles—30 32-foot motor coaches. This fleet is approaching the end of their useful life and will be eligible for retirement, making this replacement important for continuing to improve on fleet reliability and comfort.

Replacement Of 40' And 60' Trolley Coaches

The SFMTA will continue to take delivery of a replacement fleet of 40-foot and 60-foot trolley coaches, which will allow us to retire our legacy trolleys that have reached the end of their useful life.

Replacement Of Light Rail Vehicle Fleet

The SFMTA will initiate the replacement of 151 light rail vehicles, with the first delivery expected in early 2021 and full fleet turnover by 2025. The SFMTA, with help from our funding partners, accelerated the purchase and delivery of this replacement fleet following the popularity and success of the fleet expansion that will also be completed in 2019.

NEAR-TERM VEHICLE EXPANSION

Light Rail Vehicle Fleet Expansion

By mid-2019, the SFMTA will have expanded the light rail fleet by 68 vehicles. This fleet will be used in the new Central Subway and across the system to address crowding and to expand frequency. In particular, the fleet will provide improved service capacity along the T-Third line which will serve a growing Mission Bay population and experience the opening of the new Warrior's Basketball Arena.

REVENUE VEHICLE REHABILITATION

Trolley And Motor Coach Mid-Life Overhauls

The first of the motor coach fleet are approaching their mid-life and will be the first to go through a special overhaul to safeguard vehicle reliability even as they continue to age. These overhauls update on-board technology and provide much needed replacement of worn and aging subsystems. This will ensure this fleet continues to operate safely and reliably for the entire length of their service.

Cable Car Renovations

The Cable Car fleet is the only fleet in the country of its kind. The SFMTA must maintain this fleet as it cannot be replaced by modern technology. The SFMTA will continue to fund the phased rehabilitation of the cable car fleet to enhance the vehicles and the system's reliability and productivity. This major rehab extends the life of a cable car by 30 to 35 years.

Historic Streetcar Rehabilitation

The historic streetcars are all-electric rail vehicles from the US and around the world. Due to its historic nature the streetcar fleet is not replaced on a regular schedule, making regular rehabilitation critical to the long-term operation of the fleet. The SFMTA will continue to rehabilitate the historic fleet to like-new condition including electric and mechanical upgrades, body work, and ensuring systems meet new CPUC and ADA requirement.

Revenue Fleet Innovation

In 2018, the SFMTA Board of Directors approved a resolution committing to the transition to an all-electric bus fleet by 2035. We are currently launching the Electric Bus Pilot Program that will procure nine all-electric motor coaches for use in evaluating the technology ahead of the next major fleet procurement scheduled for 2025.

The SFMTA is also currently working on a pilot program that permits hybrid vehicles to run on full electric battery power in select neighborhoods with poor air quality. This "Green Zone" project utilizes existing technology to reduce emissions on our existing fleet.

Funding

Funding for vehicle replacement and rehabilitation and fleet expansion is anticipated to be available from the following sources:

- Regionally programmed funds. MTC designates vehicles replacement as the highest priority for a number of the federal funding sources it allocates. Vehicle expansion and rehabilitation also receive regionally programmed funds, but are a lower priority; we assume that additional funding sources will need to be identified for this purpose.
- Local funding, including Proposition K sales tax revenues administered by the SFCTA, and Population Based General Funds, and developer fees. These sources act largely as a local match to regionally programmed federal funds.
- New sources of funding. The SFMTA is working to identify additional funding.

Demand Responsive Vehicles

In 2019, the SFMTA will expand the paratransit fleet by 18 vehicles, including 10 Prius sedans and eight Class B vehicles, and will replace 35 Class B paratransit vehicles and six minivans. A Class B or Type II vehicle is a 22-foot cutaway van with a seated capacity of 12, plus room for two wheelchairs.

By 2023, the agency will purchase 65 replacement vehicles. Because vehicles do not have to be replaced in kind, some minivans may be replaced by larger vehicles.

All vehicles listed in the following table are in service; the SFMTA currently has no spares in its paratransit fleet. The agency plans to build up a reserve fleet over the next few years by retiring but retaining vehicles as new vehicles are delivered.

Table 6-18: Paratransit Fleet Inventory

MANUFACTURER/ VENDOR	# OF VEHICLES	PERSON CAPACITY	WHEELCHAIR CAPACITY	MODE OF POWER
CLASS B				
El Dorado (2006)	8	12	3	Gasoline
Bus West (2008)	6	12	3	Diesel
El Dorado (2012)	1	12	3	Gas/ Hybrid
Elkhart (2012)	26	12	3	Gasoline
Glaval (2014)	35	12	3	Gasoline
Glaval (2017)	27	12	3	Gasoline
CLASS D				
Braun (2014)	5	3	1	Gasoline
Braun (2017)	22	3	1	Gasoline

Non-Revenue Vehicles

Overview

The SFMTA's non-revenue fleet consists of close to 900 vehicles, including the vehicles used by parking control officers and security response teams, support vehicles for transit operations (including both light- and heavy-duty vehicles), and other vehicles used for various purposes.

The SFMTA is currently developing a strategy to improve management of the non-revenue fleet to meet agency needs while also satisfying a City requirement that vehicles must be retired after 12 years.

Table 6-19: Non-Revenue Fleet Inventory

DIVISION SUBFLEET	# OF VEHICLES	MODEL YEAR RANGE	VEHICLE TYPE(S)	MODE OF POWER
Agency Administrative Functions (Communications, Information Technology, Human Resources, etc.)	29	1988-2016	Car, Minivan, Cargo Van, Pick-up	Hybrid, Gasoline
Building and Grounds Vehicles	5	1986-2010	SUV, Van, Pick-up, Cargo Van, Super-Duty Truck	Hybrid, Gasoline
Capital Projects & Construction Division Vehicles	15	1999-2015	Van, Car, Pick-ups, Cargo Van, Super-Duty Truck	Hybrid, Gasoline
Custodial Vehicles	11	1987-2010	Van, Pick-up	Gasoline
Parking Control Officer Vehicles	271	1996-2013	Cart	Gasoline, CNG
Revenue & Collections Vehicles	17	1986-2013	Pick-up, Minivan, Cargo Van	Hybrid, Gasoline
Security, Investigations, Enforcement, and Proof-of-Payment Vehicles	67	1987-2016	Car, SUV, Pick-up, Van	Hybrid, Gasoline
SFMTA SFPD K-9 Unit Vehicles	7	1996-2016	Car, SUV	Gasoline
Sustainable Streets Division Pool Vehicles	14	1998-2010	Car, Cargo Van	Gasoline
Sustainable Streets Shops Vehicles	133	1987-2014	SUV, Van, Pick-up, Super-Duty Truck	Hybrid, Gasoline
System Safety Vehicles	7	2000-2012	Car, SUV, Cargo Van	Hybrid, Gasoline
Taxi Services Investigations Vehicles	1	2000-2007	Car	Hybrid
Transit Operations Pool Light-Duty Vehicles	68	1982-2010	Car, SUV, Van, Minivan, Pick-up	Hybrid, Gasoline
Transit Operations Division Overhead Lines & Track Maintenance Vehicles	68	1981-2015	Super-Duty Truck, Freight	Gasoline, Biodiesel
Transit Operations Heavy-Duty Facilities and Maintenance Vehicles	127	1981-2013	Sweeper, Cargo Van, Super-Duty Truck, Tanker Truck, Freight	Gasoline, Biodiesel
Transit Street Operations Vehicles	45	1992-2013	Car, SUV, Pick-up, Super-Duty Track	Gasoline, Biodiesel
TOTAL	886			

San Francisco Healthy Air and Clean Transportation Ordinance

In 2010, San Francisco voters approved the Healthy Air and Clean Transportation Ordinance, or HACTO. Under HACTO, City business-related trips should be made using sustainable travel modes (including transit, walking, biking and ridesharing) whenever possible, and where single-occupant vehicles must be used, they are to be low-emissions vehicles. Each City department is also required to develop implementation plans and reports.

Waivers are granted for vehicles required to perform job-critical tasks; in 2010, the SFMTA received waivers for 422 of the 559 agency vehicles subject to HACTO. Departments that manage their own fleet, including the SFMTA, were required to reduce their remaining light duty fleet (including non-revenue and non-service-critical vehicles) by 20 percent. This was completed by the SFMTA in FY 2015.

That same year, the SFMTA installed Global Positioning System (GPS) devices in all non-revenue vehicles, in advance of a requirement enacted by the Board of Supervisors the next year that vehicle usage be tracked using GPS.

In FY 2018 HACTO was updated to focus on retirement of underutilized (3,000 miles per year or less) light-duty vehicles. Waivers are granted for vehicles that are lightly used but necessary, such as SFMTA paint shop vans. Since the HACTO update, the SFMTA has been using GPS to optimize vehicle deployment by using cleaner vehicles for higher-mileage tasks.

Funding

Funding for the SFMTA's non-revenue fleet comes from a variety of sources, including the City's General Fund, parking meter revenues, transit fares, fees, and fines.

Facilities

Overview

To properly maintain the transit fleet and ensure reliable service, efficient maintenance, fueling, storage, and staging facilities are needed. Informed by the Vision Report and Facility Framework, the Facilities Capital Improvement Program supports the modernization of outdated facilities. It also identifies funding to expand facilities, in order to accommodate growth in the fleet.

As the SFMTA modernizes and expands its facilities, it will take into account changes in vehicle technology and size. The next generation of bus facilities will be able to store, fuel, charge, and maintain both 40- and 60-foot motor, electric trolley and battery-powered vehicles.

Funding

The cost estimates in the CIP include both hard costs (construction) and soft costs (e.g., planning, design, construction management, surveying, and testing). The estimates are based on industry standards and are applied on a per-unit basis where possible, with contingency appropriate for San Francisco conditions. The estimates will be updated as additional information becomes available during planning and preliminary engineering for each facility.

Although the SFMTA has programmed significant funding in the near term to begin planning, preliminary engineering, design and construction, substantial funding is still needed to construct the projects included in the Facilities Capital Program. The SFMTA is working closely with its regional, state, and federal partners to develop a funding strategy.

Major Facilities

Following are the near-term facilities projects needed to accommodate the 2017 Fleet Plan expansion schedule. More information on the implementation schedule and funding plan for each project is available in the FY 2019-FY 2023 CIP. The CIP has evolved along with the Facilities Framework since its original adoption, so readers are encouraged to view or request the most recent updates to the CIP.

Additional Bus Storage and Maintenance Facility

Additional bus storage will be required to accommodate the expanded fleet envisioned in the most recent Transit Fleet Management Plan. Each of the facilities identified for reconstruction in the Facilities Framework is being evaluated for its potential to increase bus storage capacity during rebuild. The estimated initial investment for this project is $430 million.

Muni Metro East (MME) Expansion

This project will construct storage tracks to accommodate the planned expansion of the LRV fleet in the near term as well as planned growth in rail service through 2040. The site will also be used for interim bus storage during rebuild of other facilities before the additional LRV capacity is needed. The estimated initial investment for this project is $160 million.

Burke Warehouse Renovation

Burke Warehouse is being renovated and reconfigured for central Warehouse and Transit Division Overhead Lines Maintenance, with completion anticipated in May 2019. The estimated initial investment for this project is $43 million.

Yosemite Warehouse Purchase

This facility is currently leased for use by the Sustainable Streets Division Paint and Meter Shops. A new lease with an option to purchase the SFMTA portion of the property at fair market value is in negotiations. A future purchase would not occur until 2025-2026.

Short-Term and General Maintenance Facilities

- Operator Convenience Facilities Phases 1-3 ($12 million estimated initial investment in Phases 1 and 2, $1.5 million in Phase 3)
- Lift Upgrades at Flynn, Potrero, and Presidio ($12 million estimated initial investment)
- Kirkland Division Underground Storage Tank Replacement ($6 million estimated initial investment)
- Woods Division Modernization Project (wash rack replacement and electric bus pilot project) ($5 million initial investment)
- Potrero Yard Modernization Project (planning phase for rebuild and expansion of Potrero Yard) ($25,389,512 in FY 2019-FY 2023 CIP)

6.3.6.5 Paratransit Vehicle Facility

SFMTA's fleet of 130 paratransit vehicles is currently stored and maintained at multiple sites throughout San Francisco and Brisbane, which are leased by SFMTA's paratransit contractor. Ideally, there would be a single paratransit operations facility located in San Francisco, with space for all SFMTA-owned paratransit vehicles. It would also provide space for administration, dispatch, and vehicle maintenance. SFMTA's Real Estate division is working to identify an appropriate site.

NON-TRANSIT CAPITAL PROGRAMS

Accessibility

The SFMTA strives to make the public transportation system accessible to every person in San Francisco by planning, designing, and constructing projects such as station elevators and boarding islands and platforms. These improvements benefit a broad spectrum of residents and visitors, including people with disabilities and those who rely on a wheelchair or other mobility device as well as families and individuals with strollers and those who are temporarily disabled from an injury.

The Accessibility Program is committed to projects that go above and beyond Americans with Disabilities Act (ADA) requirements. Accessibility improvements are not limited to the projects listed in this program; instead, they are incorporated into the design of projects across the agency. For example, Transit Optimization and Expansion projects include elements that enhance access to transit such as sidewalk extensions, while projects in the Fixed Guideway Program include construction of accessible light rail stops with ramps, and Traffic and Signals projects include pedestrian countdown and accessible pedestrian signals.

Communications and IT

The Communications and Information Technology (IT) Program supports design and implementation of IT infrastructure that will improve the efficiency and ease of use of the transportation system. This includes maintaining the fiber network that serves as the internal communications backbone of the Metro system. The SFMTA is currently replacing all remaining non-fiber SFMTA facilities with a link to the core fiber network. These upgrades will reduce costs, improve bandwidth, and make our communication tools faster and more useful for the public.

The Communications and IT Program also supports investments in new technology to improve the Muni customer experience. Key transit communications projects include:

- Blue Light Emergency Telephone Replacement: Existing emergency phones will be upgraded and new phones added throughout the Muni subway. These phones remain critical for contacting emergency services in a crisis, such as a natural disaster or medical emergency.
- Radio Replacement and CAD/AVL Upgrade: As part of a systemwide upgrade to Muni communications, the SFMTA is upgrading its outdated radio system and introducing a new Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system. The new radio system will improve communications between Muni operators and the Transportation Management Center (TMC), improve how Muni responds to unexpected service disruptions, track vehicles in real time, and interface with other on-board systems that depend upon knowledge of vehicle locations.
- Automatic Passenger Counters: The SFMTA is installing state-of-the-art Automatic Passenger Counters (APCs) on all new buses, trolley coaches and light rail vehicles in order to track ridership by stop. In addition to improving the accuracy of ridership counts for service planning purposes, these new APCs will allow the TMC to identify overcrowding in real time.
- Real-Time Vehicle Arrival Predictions System/ Customer Information System: The SFMTA's new Real-Time Vehicle Arrival Predictions System/Customer Information System will provide more accurate projected waiting times in a variety of formats. The SFMTA is exploring the latest technologies to provide additional information on board vehicles, such as real-time service updates and connecting route arrivals, as well as informational kiosks at stations and other locations.

Other key near-term projects include additional safety upgrades and new Clipper Card readers on Muni vehicles.

Asset Management

In 2017 the SFMTA completed implementation of the Enterprise Asset Management System (EAMS). The system supports the SFMTA's Transportation Asset Management (TAM) Program that defines the agency's approach to maintain the approximately $14 billion of assets in a state of good repair.

With systems in place, the SFMTA will now turn its attention to creation and implementation of asset management policy. In October 2018, the SFMTA released its first TAM Plan, an action-oriented framework that aims to improve the maturity of asset management at the SFMTA. The TAM Plan documents the SFMTA's asset management policy and presents the agency's overall asset management improvement program that is made up of specific implementing actions that will improve asset management outcomes. Additionally, the TAM Plan includes the ongoing governance and system of accountability for managing implementation.

A newly created Asset Management Team at the SFMTA will take the new policy and create tangible results for the agency. The team will build on existing Capital Asset Inventory data and improve its accuracy and reliability. Using this data helps the agency better assess the condition of assets and enable more accurate financial forecasting and planning. As a result, the SFMTA will see benefits including improved customer service, improved productivity and reduced costs, optimized resource allocation, and improved stakeholder communications.

Security

Security Program funds are used to plan, design, and implement state-of-the-art emergency security systems and plans for natural disasters, terrorist attacks, or other emergency situations. The Security Program also provides security and emergency preparedness training for staff and transit operators. The SFMTA applies for grants such as the federal Transit Security Grant Program to fund the program.

Near-term security projects include site-hardening the Muni subway system and installing threats and vulnerabilities countermeasures to improve the security of both Muni riders and operators.

Parking

The SFMTA maintains off- and on-street public parking facilities to serve San Francisco residents, visitors, and businesses. The Parking Program supports the planning, design, construction, and rehabilitation of lots and garages as well as street infrastructure related to public parking. This includes ensuring that parking garages are structurally sound, well-ventilated, and can withstand weather and earthquakes. The SFMTA also ensures that parking structures are ADA-accessible.

Near-term parking projects include rehabilitation and equipment upgrades at parking structures including Civic Center Plaza, Golden Gateway, Japan Center, Moscone Center, Performing Arts Center, and Union Square, as well as neighborhood garages in North Beach and the Mission.

More information on SFMTA parking policies and projects is available on the on the SFMTA website: http://www.sfmta.com/getting-around/parking

Traffic and Signals

The Traffic & Signals Program provides funding for upgrades, renovation and replacement of traffic signals and signal infrastructure.

Some of San Francisco's signal equipment is more than fifty years old. Modernizing these systems to better manage traffic flow creates substantial savings of time and money for all transportation users. The SFMTA is replacing outdated signals with Intelligent Transportation Systems (ITS) tools that provide transit signal priority, expedited maintenance, and enhanced traffic analysis capabilities through the SFgo program. ITS tools include advanced traffic signal controllers, traffic cameras, video detection, variable message signs, a communications network, the Transportation Management Center, and remote workstations.

The signals program also funds design and construction of upgraded and new traffic signals for improved safety.

Streets

San Francisco is a national leader in complete streets design that accommodates all transportation modes and prioritizes safety for vulnerable users. In order to streamline the capital funding process for this work, we've chosen to unify the former Pedestrian, Bicycle, Traffic Calming, and School capital programs into a more integrated and diverse Streets Program that will invest in capital projects to make our streets safe, vibrant and enjoyable places to walk and bike.

The projects and programmatic areas funded in the Streets Program were selected based on consistency with the SFMTA Strategic Plan and the Vision Zero Goal of eliminating traffic deaths; continuation of previous commitments; inclusion in approved planning documents; and fund matching opportunities. New CIP projects are either located on the 2017 Vision Zero High Injury Network or have been identified through a previous or ongoing planning effort. To speed the delivery of benefits to the public, improvement projects will incorporate near term measures when possible and the use of programs allows for greater flexibility and responsiveness (Pedestrian Quick & Effective, Streets Coordination, Vision Zero Bikeway Improvements).

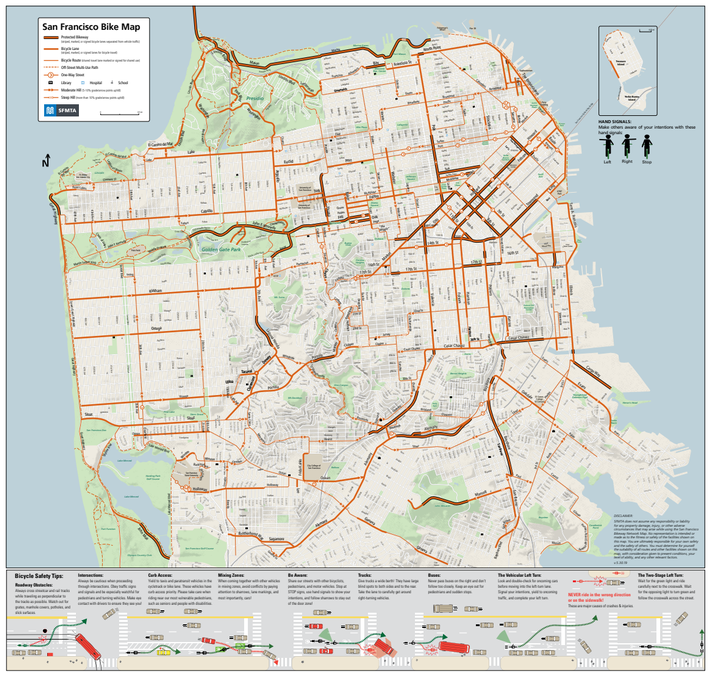
Bicycle

San Francisco's network of dedicated bicycle facilities is growing – it currently consists of more than 400 miles of lanes and paths – and increasingly, it is a cohesive, citywide system of safe routes for cyclists. There are also now more than 13,000 racks and other bike parking spaces in the city.

Bicycle Program funds are used for the planning, design and construction of capital projects to enhance the safety and comfort of bicycle infrastructure, including bicycle lanes and separated cycletracks, safety improvements, and secure bicycle parking. Project prioritization is guided by the SFMTA's 2013 Bicycle Strategy, which identified key corridors with a high rate of bicycle travel, high population density, and frequent collisions with cars. Concentrating infrastructure improvements in these corridors helps to eliminate the most dangerous bicycling conditions first.

The Bicycle Program in the CIP also supports events such as Bike to Work Day and bicycle education and safety programs in local elementary schools.

Figure 6-7: San Francisco Bikeway Network Map



Pedestrian

Almost every trip is, in some part, a pedestrian trip, and fully one-quarter of all trips in San Francisco are made by walking alone (Source: 2015 Travel Decision Survey). The Pedestrian Program plans, designs, and implements capital projects to make city streets safe, vibrant and enjoyable places to walk, including refuge islands, speed tables, and corner bulb-outs. These projects help protect pedestrians from traffic, make busy intersections more people-friendly, and turn roadways into complete streets.

The Pedestrian Program is a partner in city-wide safety initiatives including WalkFirst, Vision Zero, and the Pedestrian Safety Advisory Committee (PSAC), contributing by conducting rigorous, data-driven studies and community outreach. Just 12 percent of San Francisco streets account for 70 percent of severe or fatal pedestrian injuries, and by focusing on these high-injury corridors and intersections, Pedestrian Program capital projects can vastly improve the safety of San Francisco as a whole.

More information on Vision Zero, WalkFirst and other pedestrian-focused planning and projects is available on the on the SFMTA website: www.visionzerosf.org

School

The Streets Program provides San Francisco children with safe, direct routes to school by funding capital projects and programs that help to make active modes of transportation safer and more accessible for children, including those with disabilities. Funded projects include street redesigns, bicycle infrastructure, removal of pedestrian barriers, and programs such as Walk to School Day and pedestrian safety classes in elementary schools.

Traffic Calming

A pedestrian struck by a car moving at 30 mph is six times more likely to die than a pedestrian being struck by a car moving at 20 mph. The Traffic Calming Program, then, is essential to reducing pedestrian and bicyclist deaths – especially in the city's residential neighborhoods.

The Traffic Calming Program helps to make San Francisco streets welcoming environments for all users by slowing traffic and increasing the safety and visibility of people walking, bicycling, and using transit. Program funds are used to plan, design, engineer, and construct capital projects including road diets (reconfiguring roadways to reduce vehicle speeds), speed humps, pedestrian median islands, traffic circles, and restriping.

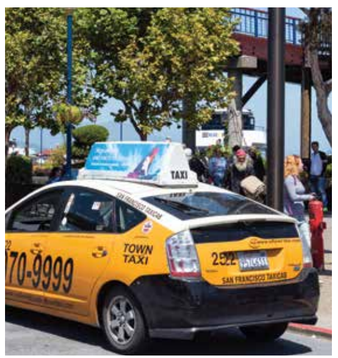
Traffic calming projects fall into three categories (local, arterial, or school) depending on the type of street being treated. These projects are often combined with streetscape enhancements, pedestrian projects, and bicycle infrastructure to create complete streets.

More information on traffic calming is available on the on the SFMTA website: http://www.sfmta.com/node/77946

Taxis

The Taxi Program plans, designs, and implements improvements to provide a better customer experience for taxi industry stakeholders. The program includes initiatives to reduce the environmental impacts of taxi use, such as a taxi Clean Air Energy Rebate given to taxi companies and taxi medallion holders that purchase new alternative fuel vehicles. It also includes a program to expand the taxi network through the installation of taxi stands.

More information on taxi projects is available on the on the SFMTA website: http://www.sfmta.com/services/taxi-industry



ACKNOWLEDGEMENTS

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Photography & Figures

All images and figures by the San Francisco Municipal Transportation Agency unless noted.
http://sfmta.photoshelter.com/

SFMTA Fiscal Year 2019 - Fiscal Year 2030
Short Range Transit Plan

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