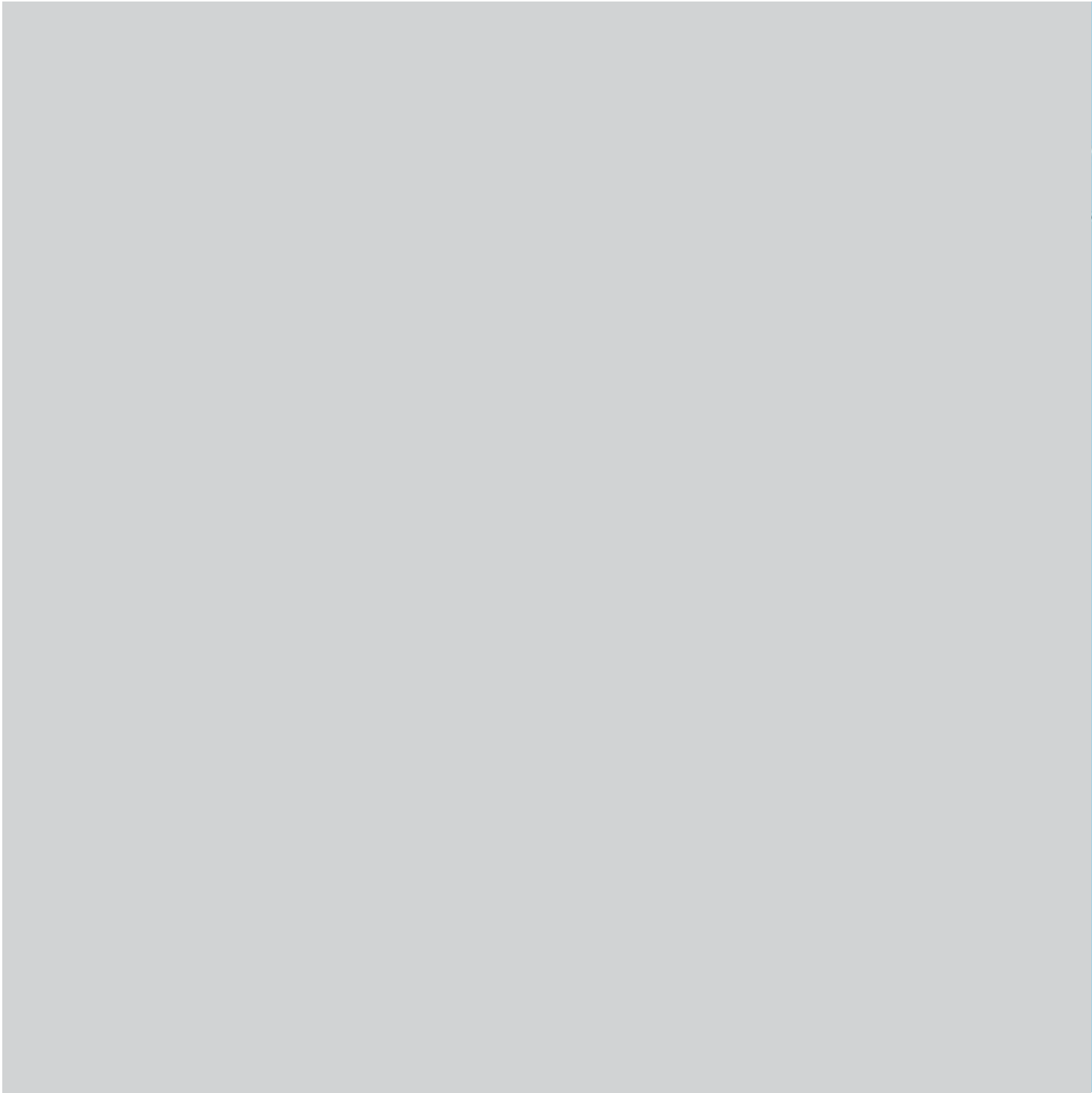


13. Transportation

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13. TRANSPORTATION

SFMTA: San Francisco Municipal Transportation Agency

SFO: San Francisco International Airport

PORT: Port of San Francisco

SFCTA: San Francisco County Transit Authority

Caltrain: Peninsula Corridor Joint Powers Board

TJPA: Transbay Joint Powers Authority

BART: Bay Area Rapid Transit

Investments in public transportation enhance the mobility of all residents and improve equitable access to workplaces, schools, essential services, and cultural and recreational activities. The COVID-19 pandemic underscored the important role that local, regional, and global transportation networks play in San Francisco's economy and social fabric. Transportation will continue to be critical in the region's economic recovery. In addition, in order to meet climate action goals of net-zero greenhouse gas emissions by 2040, action is needed to shift to less carbon intensive and efficient modes of transportation such as transit, bicycling and walking.

This chapter describes projects and programs to improve San Francisco's transportation systems, mitigate losses due to the COVID-19 crisis, and build resilience in the sector over the next ten years. It is critical that San Francisco takes care of our transportation needs so that the city remains accessible and livable for generations to come.

Overview

San Francisco sits at the center of the Bay Area, both geographically and economically. To support residents, workers, and visitors, the City maintains a vast system of transportation infrastructure ranging from cross-town buses and Muni trains to the San Francisco International Airport, one of the busiest in the United States. Regional transportation assets, including Bay Area Rapid Transit (BART) and Caltrain also run through the city, connecting San Francisco to the surrounding counties.

San Francisco is also in the midst of implementing several major capital initiatives that will improve its transportation system for years to come. From Better Market Street, bus rapid transit (BRT) lines on major thoroughfares, and terminal expansions at the Airport, San Francisco is adding capacity that will dramatically improve mobility.

San Francisco Municipal Transportation Agency

The San Francisco Municipal Transportation Agency (SFMTA)

manages all City-owned ground transportation infrastructure. Related operations include running the San Francisco Municipal Railway (Muni), managing parking and traffic, facilitating bicycling and walking, regulating taxis, and planning and implementing strategic community-based projects to improve the transportation network and prepare for the future.

The SFMTA has a number of short-term and long-term processes in place to identify and prioritize its capital projects. Once every two years the SFMTA develops its own fiscally unconstrained Capital Plan, last published in 2021, to identify needs for projects and programs over the next 20 years. This Capital Plan is overseen by the Transportation Capital Committee, which is comprised of representatives from all the agency's functional divisions. This identifies the agency's capital investment needs and establishes priority investments.

Over the next ten years, the SFMTA's total capital need is approximately \$5.8 billion.



Image Caption

This chapter summarizes SFMTA's capital needs at a high level. For a detailed description of SFMTA's capital projects, please see the SFMTA's published plans at <https://www.sfmta.com/reports-documents>.

San Francisco International Airport

Owned by the City and County of San Francisco, and located within unincorporated San Mateo County, the San Francisco International Airport (SFO) manages a large and diverse infrastructure portfolio that includes four runways, 105 operational gates, and four terminals that total 5.7 million square feet.



Image Caption

SFO also oversees 32 miles of roadways, five public parking garages with several employee garages, the AirTrain transit system, a rental car facility, a 351-room hotel, leased cargo and maintenance facilities, a waste treatment plant, and more than 274 miles of pipelines, ducts, power, and pump stations for water, sewage, storm drainage, industrial waste, and gas, in addition to electrical and telecommunications distribution systems.

SFO staff periodically develop and update a plan for redevelopment, improvement, and expansion of SFO facilities. The plan is reviewed and approved by the Airport Commission. Currently, capital reporting and



Image Caption

spending is tracked to the SFO's Capital Improvement Plan (CIP) totaling \$7.76 billion, which was approved in April 2022. The CIP consists of: (1) the \$7.3 billion Ascent Program – Phase I (Ascent Program); and (2) the \$492 million Rolling CIP, which addresses both current emerging needs and those related to replacement of aging infrastructure. A major objective of SFO's current CIP is to meet increased infrastructure demands driven by passenger growth. However, in response to the pandemic's disruption on operations and revenue, several projects were suspended and are being reactivated based on key indicators that show economic recovery.

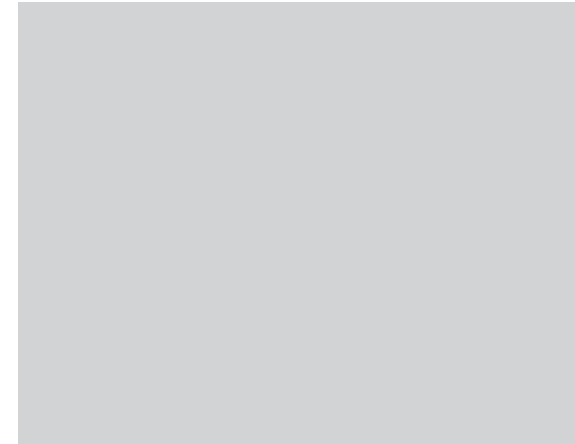


Image Caption

SFO was ranked the nineteenth busiest airport in the United States in terms of enplaned passengers in FY2021, down from eleventh in FY2020, and seventh in FY2019. International and corporate business travel was restricted during the COVID-19 pandemic, according to U.S. Department of Transportation statistics, impacting traffic through SFO. As the region recovers from the consequences of the pandemic, airport staff have been tracking air travel recovery. SFO remains the busiest airport in the Bay Area and Northern California and accounted for 58% of the total scheduled departing seats, domestic and international, at Bay Area airports in FY2021. SFO's

Capital Plan identifies \$2.1 billion in infrastructure needs through FY2033.

This chapter contains a high-level summary of SFO's capital needs. For a more in-depth description of capital projects, please see the five-year and 10-year Capital Plans published on the Airport's website: <http://www.flysfo.com/about-sfo>.

Port of San Francisco

The Port of San Francisco is the hub of the local and regional commuter, special event, and tourist water transportation network in the Bay Area. The Port constructs and provides land and water areas to support ferries and excursion vessels that are operated by external agencies such as the Water Emergency Transit Agency (WETA) and the Golden Gate Bridge and Ferry District. Though it does not operate any such vessels itself, the Port works in close collaboration with these critical agencies. The expansion of both publicly and privately operated ferries has reduced congestion in the Bay Area while continuing to build an emergency response network.

San Francisco County Transportation Authority

The San Francisco County Transportation Authority (SFCTA) is the sub-regional transportation planning and programming agency for the City. The SFCTA is responsible for the City's long-range transportation planning, coordinating with federal, state, and other local transportation agencies. In this capacity, SFCTA helps to plan, fund, and deliver improvements for San Francisco's roadway and public transportation networks. The SFCTA is funded through a combination of local funds including San Francisco Sales Tax revenues and Vehicle Registration Fees, as well as grants from the State of California and the federal government.

Peninsula Corridor Joint Powers Board (Caltrain)

San Francisco, along with San Mateo and Santa Clara counties, is a representative member of the Peninsula Corridor Joint Powers Board (JPB), which operates and maintains Caltrain, one of the oldest commuter rail services in Northern

California. Caltrain provides peak and off-peak connections along the Peninsula rail corridor between San Francisco and Gilroy. Per the 1996 Joint Powers Agreement, funding for system-wide capital improvements are shared equally among the three member counties, while local improvements are, in general, borne by the county in which the improvements are located. More information on the JPB's future projects and programs can be found at <http://www.caltrain.com/projectsplans.html>.

Transbay Joint Powers Authority

The Transbay Joint Powers Authority (TJPA) was created to manage the financing, design, development, construction, and operation of the Transbay Program, including the Salesforce Transit Center and the Caltrain Downtown Extension (DTX). Phase One of the Transbay Program included constructing the Salesforce Transit Center, a \$2.2 billion modern transit hub that replaces the seismically deficient terminal in downtown San Francisco.

Now complete, the Salesforce Transit Center helps to unify a fractured regional transportation network by connecting eight Bay Area counties and the State of California through 11 transit systems: AC Transit, BART, Caltrain, Golden Gate Transit, Greyhound, Muni, SamTrans, WestCAT Lynx, Amtrak, Paratransit, and the future California High-Speed Rail. The project is split in two phases. Phase 1 saw the opening of the Salesforce Transit Center in August 2018; Phase 2 encompasses construction of the Caltrain Downtown Extension, a new Fourth and Townsend Street Caltrain station, the Transit Center's train station and pedestrian connection to BART and Muni, and a new intercity bus facility.

A related effort overseen by San Francisco's Office of Community Investment and Infrastructure will create a new mixed-use transit-oriented neighborhood surrounding the Transit Center. For more information on this neighborhood development, please refer to the Office of Community Infrastructure and Investment Section in the **Economic and Neighborhood Development chapter** of this Plan.

Bay Area Rapid Transit

Since its opening in 1972, Bay Area Rapid Transit (BART) has become essential to the mobility, economy, and livability of the Bay Area for riders and non-riders alike. Prior to the COVID-19 crisis, BART carried 440,000 passengers on a typical weekday. Pre-COVID forecasts suggested that demand for BART would increase with the region, growing to 600,000 daily riders by 2040. Ridership during the pandemic declined steeply, but has begun to recover, with over 150,000 weekday riders in the fall of 2022. As recovery occurs, capital projects at BART continue to address the system's aging infrastructure and improving the rider experience.

BART improvements within San Francisco will include ADA compliance projects to improve accessibility, station modernizations, and escalator replacements.



Image Caption



Image Caption

Renewal Program

All of the agencies covered in the Transportation chapter are either enterprise departments or external agencies, and there are no General Fund expenditures expected for renewals. SFMTA, SFO, and Caltrain each have their own state of good repair and other various renewal programs, which are described by the agencies here.

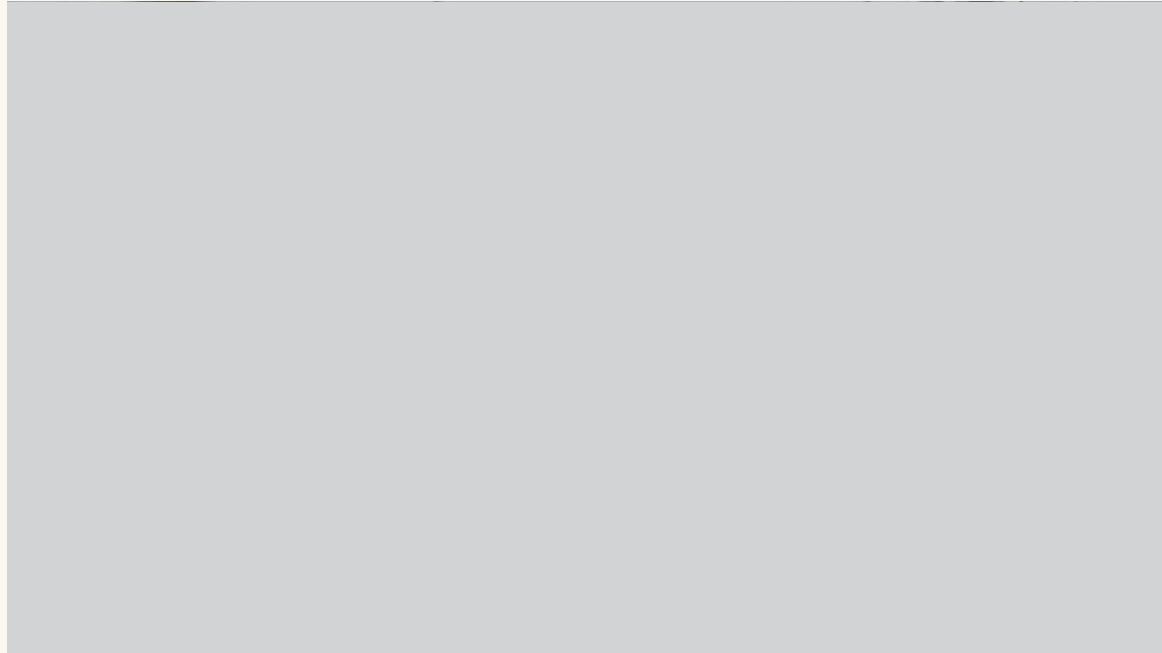


Image Caption

SFMTA - Renewals

The SFMTA currently has approximately \$16 billion worth of capital assets, including bike routes and lanes, traffic signals, subway infrastructure, stations, maintenance and operations facilities,

taxi facilities, fixed guideway track, overhead wires, and parking garages. SFMTA has been tracking its capital planning efforts through its Asset Management Program, ensuring that current assets receive needed maintenance, rehabilitation, and

replacement. This effort is detailed in the SFMTA 2019 Transit Asset Management Plan, which was updated in 2022. The SFMTA renewal and modernization efforts include lifecycle management of its fleet, improvements to the Muni Metro subway through Subway Renewal, and rehabilitation of its yards and facilities in its Building Progress Program.

SFO - Renewals

SFO is the main thoroughfare for passenger travel and must be maintained to high safety standards. SFO considers renewals to be general repair and replacement of building systems and fixtures, such as a roof repair, that do not enhance the value or change the use of an asset. These projects typically are small in scope and are completed in less than a year. These projects are usually funded

through SFO's annual operating budget, unlike capital improvements which are often multi-year projects financed with General Airport Revenue Bonds.

The cost of SFO's renewal program is approximately \$178.3 million through FY2033.

Caltrain - State of Good Repair

Pursuant to the Joint Powers Agreement, each member of the Joint Powers Board is responsible for contributing a one-third share towards Caltrain's local match for its capital projects that are designed to maintain Caltrain assets in a state of good repair. Examples of these projects include replacement of track and various civil structures, rail vehicle overhaul and major component replacement, station rehabilitation, and signal and communication systems rehabilitation.

The cost of Caltrain's state of good repair program is estimated at \$734.4 million through FY2033.

Caltrain - Guadalupe Bridge and San Francisquito Creek Bridge Replacements

Through FY2033, Caltrain anticipates completing two bridge replacement projects on its corridor. Guadalupe Bridge is located in San Jose and is anticipated to be replaced by FY2025, while San Francisquito Creek Bridge is located in Palo Alto and is anticipated to be replaced by FY2033.

The cost of Caltrain's bridge replacement projects is estimated at \$171.6 million through FY2033.

Caltrain - Vehicle Replacements

This capital project will replace Caltrain's remaining, aging diesel fleet with new electrical multiple units (EMUs).

The cost of Caltrain's vehicle replacement is estimated at \$370 million through FY2033.

BART - Renewals

In November 2016, voters approved Measure RR which authorized BART to issue \$3.5 billion in G.O. bonds to fund projects throughout its system. The Measure was put to the voters in three counties: San Francisco, Alameda, and Contra Costa. Its projects include replacement of 90 miles of track, renewal of mechanical infrastructure, repair of tunnels and stations, and many other initiatives that will modernize the BART system. The result of the program will be shorter wait times, fewer delays, and more comfortable rides for passengers.

Enhancement Projects

Project Name	Description
SFMTA – Communications & IT Infrastructure	<p>The SFMTA maintains a wide array of information technology (IT) assets across the city, from Wi-Fi installation at SFMTA worksites, to a fiber network that provides the internal communication backbone of the Muni Metro system, to the customer information systems that provide real-time public transit information. In addition to system maintenance, IT supports SFMTA's infrastructure upgrades and replacement on our aging systems. Upgrades are planned to the core network to support an upgrade of the video analytic system to monitor safety footage, upgrade routers on fleet vehicles to support remote video streaming and increased cameras to enforce Transit Only Lane violations. A major commitment to a new customer information system is also planned in this plan timeframe.</p> <p>These initiatives contribute to a more efficient and secured network, as well as help passengers to better integrate travel planning into their day-to-day lives.</p> <p>The funding for SFMTA's Communications & IT Infrastructure projects is approximately \$48.9 million through FY2033.</p>
SFMTA – Facilities	<p>The Facilities Program at SFMTA supports the modernization and expansion of outdated facilities to make them safe and efficient, and the acquisition of new facilities to accommodate fleet growth. SFMTA will carry out projects to make sure that all SFMTA employees experience a safe, comfortable, and efficient working environment. The Muni Metro East Expansion, the Potrero Yard Modernization Project and implementation of the Facility Condition Assessment Program will reach significant project milestones through 2033.</p> <p>The funding for SFMTA's Facilities Program is approximately \$1.3 billion through FY2033..</p>
SFMTA – Fleet Capital Program	<p>The Fleet Capital Program ensures that vehicles operated by the SFMTA are safe, comfortable, clean, and reliable. Rehabilitating or replacing vehicles as they near the end of their useful life helps avoid costly repairs and service interruptions caused by vehicle failures. Expansion of the fleet alleviates overcrowding on busy routes and enables the transit system to serve more passengers. Enhancement projects in this program include the expansion and replacement of the light rail vehicle fleet, as well as preparation for the transition to meet the zero-emission fleet mandate set by the California Air Resources Board. Some of our Fleet projects planned include: the replacement and expansion of the motorcoach fleet; replacement and expansion of the motorcoach, historic streetcar and light rail vehicle renovations; and paratransit vehicle replacements.</p> <p>The funding for the SFMTA's Fleet Capital Program is approximately \$1.7 billion through FY2033.</p>
SFMTA – Parking	<p>The SFMTA Parking Program supports the planning, design, rehabilitation, and renovation of public parking garages, as well as street infrastructure and facilities related to public parking. A major priority for the Parking Program will be the implementation of the Parking Meter Replacement project which will upgrade the inventory of parking meters in San Francisco, reducing meter jams and enabling the public to more reliably pay for parking.</p> <p>The funding for the SFMTA's Parking Program is approximately \$48.7 million through FY2033.</p>
SFMTA – Security	<p>SFMTA Security Program funds are used to plan, design, and implement emergency/security initiatives in case of natural disasters, terrorist attacks, or other emergency situations. The program also provides security and emergency preparedness training and exercises for frontline transit employees.</p> <p>Security projects include improving the physical security of our facilities and yards and revenue-fleet maintenance and storage facilities.</p> <p>The funding for the SFMTA's Security program is approximately \$22.0 million through FY2033.</p>

Enhancement Projects

Project Name	Description
SFMTA – Streets Program	<p>San Francisco is a national leader in complete streets design that accommodates all transportation modes and prioritizes safety for vulnerable users. The SFMTA is implementing enhancement projects that make walking and bicycling safer in the city, supporting the Vision Zero goal of eliminating traffic-related deaths and severe injuries by 2024.</p> <p>The projects and programmatic areas funded in the Streets Program were selected based on the SFMTA Strategic Plan and the Vision Zero Goal of eliminating traffic deaths; continuation of the previous commitments; inclusion in approved planning documents; and fund-matching opportunities.</p> <p>The funding for the SFMTA's Streets Program is approximately \$524.5 million through FY2033.</p>
SFMTA – Taxi	<p>The SFMTA Taxi Program strives to make comfortable, efficient, and environmentally friendly taxis available throughout the city. Program funds are used to plan, design, and implement improvements to the taxi system and to provide a better customer experience for all taxi users. Current projects include continued incentive programs for “green” taxi technology such as the Alternative Fuel Taxi Vehicle Incentive Program.</p> <p>The funding for the SFMTA's Taxi program is approximately \$2.6 million through FY2033.</p>
SFMTA – Traffic and Signals	<p>The Traffic and Signals Program provides funding for upgrading, replacing, and constructing new traffic signals and signal infrastructure. The SFMTA is replacing outdated signals with Intelligent Transportation Systems (ITS) tools to enhance traffic analysis, provide transit signal priority, and expedite maintenance procedures. ITS tools include advanced traffic signal controllers, traffic cameras, video detection, variable message signs, and a communications network. This program also funds new and upgraded traffic signals to improve safety in line with Vision Zero. SFMTA is also conducting a traffic signal condition assessment to update existing maintenance models and more accurately forecast capital needs for the traffic signal asset portfolio.</p> <p>The CIP includes major traffic signal upgrade projects in the Western Addition and the Tenderloin areas which will add pedestrian countdown signals, accessible pedestrian signals, and higher visibility traffic signals. There will also be several projects using City forces that will install higher visibility traffic signals, replace key aging signal equipment such as accessible pedestrian signals and signal controller cabinets, and replace faded pedestrian crossing and street name signs.</p> <p>The funding for the SFMTA's Traffic and Signals program is approximately \$147.3 million through FY2033.</p>
SFMTA – Transit Fixed Guideway	<p>Muni's Transit Fixed Guideway systems, which include light rail, trolley coach, streetcar, and historic cable car lines, are a crucial component of San Francisco's transportation infrastructure. The SFMTA plans to do major state of good repair work on its track, overhead catenary, train control, and subway fire life safety systems. SFMTA's Subway Renewal focuses on the core of the light rail network, investing in critical state of good repair improvement in the subway. Additionally, a key component of the fixed guideway planned investments is the upgrade of the Automatic Train Control System to a Communication Based Train Control System which enhances safety and capacity of the transit system.</p> <p>The funding for the SFMTA's Transit Fixed Guideway program is approximately \$904.0 million through FY2033.</p>

Enhancement Projects

Project Name	Description
SFMTA – Transit Optimization and Expansion	<p>The Transit Optimization and Expansion program is a series of projects that will make Muni more efficient, reliable, safe, and comfortable for its existing passengers – as well as to prepare the system for future growth. Included in this program is Muni Forward, an initiative designed to enhance service on certain bus and light rail lines and construct new accessible light rail stops to eliminate significant gaps. These projects address the root causes of delay and passenger frustration like traffic congestion, stops that are spaced too close together, narrow travel lanes, and slow boarding times.</p> <p>The Five-Minute Network is SFMTA’s next generation of Muni Forward transit priority capital projects. The most intensive improvements would focus on corridors that support combined 5-minute headways or better, carrying about 80% of Muni riders. These corridors serve major regional destinations and transit hubs, including along Market Street. Improvements would also be made to less frequent routes that provide critical connections to the Five-Minute Network. This capital program will be coupled with transit service expansion, as the capital improvements will enable faster, more frequent, and more reliable transit service systemwide. In most cases, projects will include quick-build components to deliver initial benefits faster.</p> <p>Several major corridor projects will advance through construction in the next several years, including the 16th Street Transit Priority, 28 19th Avenue Rapid Project, and the L Taraval Improvement Project. Other projects include Muni Forward improvements on the N-Judah and other Muni Metro lines, Transit Quick Build program focused on bringing near term improvements to delayed corridors and hot spots, and implementation of the Equity Strategy through investments in the 27 Bryant and the 29 Sunset Muni Forward projects.</p> <p>The funding for SFMTA’s Transit Optimization and Expansion program is approximately \$1.1 billion through FY2033.</p>
SFO – Airfield Enhancements	<p>Major airfield-related improvements include the Runway 1L-19R Rehabilitation and Taxiway A and B Reconstruction projects. The Airport is leveraging a period of lower flight activity as an opportunity to deliver on key airfield projects. These two key projects are expected to be completed in 2024 and 2025.</p> <p>The funding for SFO’s Airfield Enhancements is approximately \$190.8 million through FY2033.</p>
SFO – Airport Support Projects	<p>Major projects in this category include various technology and systems improvements that will inventory and streamline data collection to inform business and operational decisions. In addition, the Airport continues to implement standardized wayfinding and signage in the airport to enhance the guest experience. The Airport expects to have approximately 98% of Airport Support projects completed by FY2025.</p> <p>The funding for SFO’s Airport Support projects is approximately \$374.9 million through FY2033.</p>
SFO – Groundside Projects	<p>Major groundside projects include the replacement of aging temperature control systems (HVAC) and security cameras (CCTV) in the AirTrain people mover system vehicles; the replacement of the Rental Car Center quick turn-around building fire sprinkler system; and the roadway and seismic joint repairs by the International Terminal. The Airport completed the extension of the AirTrain system to the newly constructed Lot “DD” station between the long-term parking garages in April 2021.</p> <p>The funding for SFO’s Groundside projects is approximately \$74.0 million through FY2033.</p>

Enhancement Projects

Project Name	Description
SFO – Terminal Redevelopment	<p>The largest terminal projects include the redevelopment of Harvey Milk Terminal 1 (HMT1) and the renovation and reconfiguration of the eastern and western side of Terminal 3. The Airport completed the remaining gates in HMT1 Boarding Area B for a total of 25 gates in April 2021. Construction continues on the north area of HMT1 which will result in a new building envelope, updated check-in counters, and a non-secure and secure passenger connector between Boarding Area B and Boarding Area C.</p> <p>With the renovation of Terminal 3 East complete, the reconfiguration and renovation of the western side of Terminal 3 includes seismic stability improvements and building system upgrades, Boarding Area F gate capacity enhancements, and a sterile passenger corridor to the International Terminal. Due to the COVID-19 pandemic, this project was suspended during the planning phase and will be considered for reactivation at a later time.</p> <p>SFO completed the first phase of improvements to the International Terminal with expanded Departures Level security checkpoints which improved passenger queuing and operational efficiency and constructed a post-security passenger connector between Terminal 2 and Terminal 3 in the Courtyard 3 Connector project.</p> <p>The funding for SFO’s Terminal Redevelopment projects is approximately \$1.1 billion through FY2033.</p>
SFO – Utilities Enhancements	<p>Major utilities-related projects include “net zero” energy use-related improvements to the terminals and other major Airport facilities and systems, waste water system improvements, energy and efficiency improvements, and water system improvements.</p> <p>The funding for SFO’s Utilities Enhancements projects is approximately \$175.3 million through FY2033.</p>
TJPA – Transbay Transit Center Phase 2	<p>Phase 2 of the Transbay Transit Center will build the 1.95-mile Downtown Extension (DTX) for Caltrain commuter and high-speed rail. The DTX will extend from the current Caltrain terminus at Fourth and King streets into the lower level of the new multimodal Transit Center. Phase 2 includes a new Caltrain station at Fourth and Townsend streets, and the fit-out of the already built two-story trainbox found underneath the Center. The funding plan for Phase 2 includes a mix of local, regional, state, and federal funds. Construction will begin once Phase 2 is fully funded.</p> <p>The total capital cost of Phase 2 is estimated at approximately \$5 billion through FY2033, including costs incurred in prior years.</p>
Port – Mission Bay Ferry Landing	<p>The Mission Bay Ferry Landing will provide critical Transbay and regional ferry service to and from the fastest growing southern waterfront neighborhood of San Francisco, the financial district and the East and North Bay. The landing will include capacity to berth two ferries simultaneously and may include a nearby water taxi landing to provide regional access to UCSF Mission Bay, the Golden State Warriors arena, and the surrounding neighborhoods. These amenities are essential to alleviate regional transportation overcrowding and to provide transportation resiliency in the event of an earthquake, BART or Bay Bridge failure, or other unplanned event.</p> <p>The estimated cost for the Mission Bay Ferry Landing is approximately \$58.4 million, including \$9.4 million in unfunded future expenses. Construction funding is anticipated from external sources, including funding from Regional Measure 3 which is currently restricted due to ongoing litigation.</p>

Enhancement Projects

Project Name	Description
SFCTA – Treasure Island and I-80/ Yerba Buena Island Interchange and Mobility Projects	<p>The SFCTA is working with the Treasure Island Development Authority (TIDA) to improve mobility in this neighborhood. The SFCTA is taking the lead on Southgate Road Realignment Improvements on the east side of Yerba Buena Island. Construction started in June 2020 and is nearing completion. Opening of the ramps and bike infrastructure is planned by the end of 2022. On the west side of the island, the West Side Bridges Seismic Retrofit Project will retrofit one seismically-deficient bridge, and demolish and replace seven seismically-deficient bridges that are located in proximity to each other along Treasure Island Road. The project selected a Construction Manager/General Contractor and the project is in final design. This part of the project is scheduled to start construction in the spring of 2023 after the Southgate Road Realignment Improvements and TIDA's Macalla Road reconstruction are completed in order to avoid traffic circulation delays. The West Side Bridges Seismic Retrofit Project is scheduled to be completed by the end of 2026.</p> <p>The cost of the Southgate Road Realignment and West Side Bridges Seismic Retrofit projects together is approximately \$165 million through FY2033, including prior years' funding. Funds for these projects are provided by the Federal Highway Bridge Program, the Federal Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Program, State Proposition 1B and Senate Bill 1, the Bay Area Toll Authority, and the Treasure Island Development Authority.</p>
SFCTA – Treasure Island Mobility Management Program	<p>In its role as the Treasure Island Mobility Management Agency, the SFCTA is responsible for implementing a comprehensive and integrated transportation program to achieve the twin goals of 50 percent trips by transit/walking/biking and financial sustainability. The mobility program supports the redevelopment of Treasure Island into a new mixed-use and mixed-income neighborhood with 8,000 housing units, 27 percent of them affordable. The centerpiece of this effort is a congestion pricing program that applies motorist user fees to support enhanced bus, ferry, and shuttle transit, as well as bicycling options, to reduce the traffic impacts of development. The capital elements of the program include the initial build of the tolling system, ferry vessels and charging infrastructure, and program management costs to deliver the integrated capital program. All work is timed to support new residents on Treasure Island, expected in 2022.</p> <p>The spending plan for the Treasure Island Mobility Management Program is approximately \$29.7 million through FY2033, including prior years' funding. Components of this program have been deferred, with an estimated cost of \$24.2 million.</p>
SFCTA – Quint-Jerrold Connector Road	<p>The Caltrain rail bridge over Quint Street was over 100 years old and in need of replacement. The Quint Street Bridge Replacement project replaced the rail bridge with a berm that will facilitate construction of a potential future Caltrain station at Oakdale Avenue. The SFCTA and San Francisco Public Works are working collaboratively on the Quint-Jerrold Connector Road Project, which will link Quint Street just north of Oakdale Avenue to Jerrold Avenue via a new road along the west side of the Caltrain tracks. The project received environmental approval, completed conceptual design, and is currently in the right-of-way phase.</p> <p>The estimated cost of the Quint-Jerrold Connector Road project is approximately \$32.8 million, \$2.7 million of spending is planned through FY2033, including prior years' funding. An additional \$30.1 million has been deferred.</p>
Caltrain – Caltrain Electrification	<p>In May 2017, the JPB achieved the final milestone to fund the Caltrain electrification project—execution of the Full Funding Grant Agreement with the Federal Transit Administration. With the finalization of this \$667 million grant, the JPB secured all of the financial commitments necessary to embark on this project that will install a 25KV overhead catenary system along the Caltrain line between San Francisco and San Jose and purchase 96 new electric multiple units (EMUs), replacing up to 75% of Caltrain's aging fleet of diesel locomotives and passenger cars. The project is underway with planned completion in 2024.</p> <p>The cost of the Caltrain Electrification project is approximately \$2.4 billion through FY2033, including prior years' funding.</p>
Caltrain – Peninsula Corridor Electrification Expansion	<p>Caltrain received a 2018 Transit Intercity Rail Capital Program grant for \$163 million. This grant, along with a \$39 million local match, will allow Caltrain to procure up to 37 additional EMUs, improve wayside bicycle facilities (bike sharing and bike parking), and install a broadband communications system that expands onboard Wi-Fi and enhances reliability. Combined, these improvements will further agency goals to improve passenger capacity and system performance while reducing greenhouse gas emissions.</p> <p>The cost of Caltrain's Electrification Expansion Project is \$209 million through FY2033.</p>

Enhancement Projects

Project Name	Description
Caltrain – 22nd Street Station Accessibility Improvements	<p>This project will improve the accessibility of 22nd Street Station for Caltrain passengers in San Francisco and is anticipated to be complete by FY2027.</p> <p>The cost of Caltrain’s 22nd Street Station Accessibility Improvements is estimated at \$13 million through FY2033.</p>
BART – Rail Cars Program	<p>BART’s fleet of 669 rail cars is one of the oldest in the United States and requires constant maintenance and repair. Rehabilitation and upgrade of BART’s rail cars in the late 1990s helped prolong the life of these essential vehicles, but they are now in need of replacement.</p> <p>BART has embarked on a project to replace the existing fleet and eventually enlarge the fleet to 1,200 cars. The first ten train cars went into service January 2018 following safety and reliability testing, and regulatory approval. BART already has 775 new cars on order, with a goal to order 1,081 new cars. This will provide enough cars to run 10 car trains on all peak service into San Francisco, and will increase the number of seats in the fleet by 60%. The balance of new cars is expected to be delivered by spring 2022.</p> <p>The funding for BART’s Rail Cars Program is approximately \$382.0 million through FY2033.</p>
BART – Station Programs	<p>BART will repair and rehabilitate existing station assets and modernize stations, enhance and expand station access facilities, improve wayfinding and the customer experience, and improve capacity to accommodate more riders at the system’s busiest stations.</p> <p>The funding for BART’s Station Programs is approximately \$106.1 million through FY2033.</p>
BART – Traction Power	<p>BART trains run on electric power. The infrastructure that distributes electricity throughout the system and propels BART trains by providing electricity to BART’s third rail is supported through a set of 118 substations, over 700 high voltage circuit breakers and switchgears, and over 1.5 million linear feet of cabling. Most of this infrastructure is original to the system and requires either replacement or major rehabilitation. This program area includes four programs that will replace, renovate, and upgrade power infrastructure to maintain and improve service reliability.</p> <p>The funding for BART’s Traction Power projects is approximately \$192.4 million through FY2033.</p>
BART – Train Control & Communications Programs	<p>BART’s train control system consists of both hardware and software that are used to control speed and movement on the rail network, keeping trains running smoothly and eliminating any possibility of a collision. BART’s communications systems support train control and other operational functions. They include the Operations Control Center, supporting fiber optic cable network, trunked radio system, and CCTV cameras.</p> <p>The funding for BART’s Train Control & Communication Programs is approximately \$130.7 million through FY2033.</p>
BART – Track and Structures Program	<p>The Track & Structures program area includes four programs that will replace, rehabilitate, and upgrade the BART system’s rail rights-of-way, including trackway infrastructure, tunnels, and aerial structures. Most of these components are original to the system and worn from decades of use.</p> <p>The funding for BART’s Track and Structures Program is approximately \$200.6 million through FY2033.</p>
BART – System Support	<p>System Support programs invest in areas other than mainline railroad and station assets. They support BART District operations and promote strategic plan goals in a variety of areas including the Transbay Core Capacity Plan, Information Technology, Sustainability, Real Estate, BART to OAK Airport, Climate Adaptation and Resilience, and BART Police.</p> <p>The funding for BART’s System Support Programs is approximately \$81.9 million through FY2033.</p>
BART – Maintenance Shops, Yards, Other Facilities	<p>A range of buildings and facilities that are not visible to BART riders support system operations. These include BART’s four rail car maintenance facilities in Hayward, Richmond, Concord, and Daly City, and other facilities. Five programs in this area will repair and upgrade these facilities.</p> <p>The funding for BART’s Maintenance Shops, Yards, and Other Facilities projects is approximately \$32.8 million through FY2033.</p>

Enhancement Projects

Project Name	Description
BART – Electrical & Mechanical Programs	<p>BART system operations depend on a wide range of electrical and mechanical infrastructure, including backup power supplies, HVAC equipment, fire suppression equipment, water management infrastructure, and many other facilities. This program area includes three programs that will replace, renovate, and upgrade electrical and mechanical infrastructure to maintain safe and reliability operations.</p> <p>The funding for BART's Electrical & Mechanical Programs is approximately \$44.4 million through FY2033.</p>
BART – System Expansion Programs	<p>BART is working to complete ongoing system expansion projects and working with partners to study the possibility of future expansion. Current planned system expansion efforts include a new Transit Operations Facility to serve a larger system, investments to complete current projects, and planning processes and studies.</p> <p>The funding for BART's System Expansion Programs is approximately \$33.5 million through FY2033.</p>
BART – Seismic Programs	<p>In 2004, BART District voters approved Proposition AA, a general obligation bond to fund BART's Earthquake Safety Program (ESP). Since that time, BART has been steadily investing in crucial seismic upgrades to its core infrastructure, including elevated structures, stations, maintenance facilities, and other buildings. Remaining Earthquake Safety Program work will focus on the Transbay Tube. Beyond the 2004 Earthquake Safety Program, investment will be required to address a set of risks to operations in the Caldecott BART Tunnel resulting from incremental movement of the Hayward Fault.</p> <p>The funding for BART's Seismic Programs is approximately \$11.2 million through FY2033.</p>

Deferred Projects

Project Name	Description
SFMTA	<p>Modern maintenance and storage facilities are vital to keep SFMTA's fleet remains in a state of good repair which ensures reliable transit service. The SFMTA's Building Progress facility capital program supports upgrades to obsolete facilities to make them safe and efficient. The most urgent of these capital needs have been prioritized, but others remain partially or completely unfunded.</p> <p>The SFMTA has also deferred major corridor projects that assist Vision Zero pedestrian and bicycle safety goals; numerous Muni Forward corridor projects to make transit more effective; the full build out and replacement of station elevators; audible pedestrian signals to enhance accessibility; seismic retrofits and routine state of good repair upgrades of its parking garages; the full expansion of its light rail vehicle fleet; major track overhauls on the M-Ocean View line; a new train control system to improve on time performance; the full realization of the Rail Capacity Strategy; and other system wide state of good repair projects.</p> <p>In May 2022, the Muni Reliability and Street Safety Bond was proposed by the San Francisco Board of Supervisors for the June 7, 2022 ballot. The ballot measure would have authorized the City to borrow up to \$400 million by issuing general obligation bonds. The proceeds would have been spent on much needed transportation and transit infrastructure repairs, improvements and upgrades. Much of bond proceeds were intended for state of good repair needs, including: up to \$250 million to repair or replace the SFMTA's oldest bus yards facilities and equipment; \$26 million for traffic improvements like replacing street signals; and \$10 million on improvements to the Muni train system, including the train communications and control systems.</p> <p>In accordance with state law, the ballot measure required two-thirds approval of all votes to pass. The measure received over 65% approval from the voters, falling just short of the required threshold. The failure to pass Proposition A puts additional strain on the FY2023 to FY2027 Capital Improvement Program and increases the chance that some SFMTA assets could fall out of a state of good repair. It also strains the operating budget to make more frequent repairs to aging assets.</p> <p>The cost of SFMTA's deferred projects is approximately \$9.4 billion through FY2033.</p>
SFO	<p>As a result of the COVID-19 pandemic and the resulting economic uncertainty, the Airport reprioritized its capital projects. As of April 2022, the Director suspended \$1.38 billion in capital projects in its CIP, including the Terminal 3 West project, and reduced the Ascent Program Reserve by \$306 million. Other notable project suspensions include scope reduction for the International Terminal Phase II project and several taxiway projects. SFO continues to monitor passenger traffic and operations to inform its decisions to prioritize and restart suspended projects.</p>
TJPA – Intercity Bus Facility	<p>An intercity bus facility to house Greyhound and Amtrak intercity bus service, and potentially a block-long pedestrian tunnel between the lower level of the Transit Center and the Embarcadero BART/Muni Metro station are Phase 2 components of the Transbay Transit Center that have been deferred by the TJPA Board as recommended by a Phasing Study completed in 2021.</p>

Emerging Projects

Project Name	Description
SFMTA – Muni Metro Modernization	<p>Muni Metro Modernization is a comprehensive long-term strategy for expanding the capacity of the Muni Metro system. Muni Metro Modernization aims to replace aging infrastructure and enable a longer train in high demand/growth areas, such as West Portal-San Francisco State University (SFSU) and Judah corridor. Modernization would also support more frequent and reliable service systemwide.</p> <p>This program also includes the Muni Core Capacity Study, which will propose a future scenario and identify a sequential program of infrastructure projects to achieve that scenario. The study will also develop a more specific infrastructure project concept along the surface between West Portal and SFSU.</p>
SFMTA – Presidio Yard Modernization	<p>The Presidio Division Yard facility is over 100 years old and needs to be replaced. The modernization project aims to provide safer and healthier working conditions to support a reliable and efficient transportation system. The three-level structured bus facility will house a modern bus operations and maintenance facility and Muni’s historic buses. The facility would also be home to the SFMTA Peer Assistance Program and a Public Works street cleaning unit. The new facility will also be equipped with charging infrastructure to support Muni’s transition to battery electric buses. Staff is exploring joint development for this facility.</p>
SFMTA – Fleet and Facility Electrification	<p>The SFMTA has committed to transitioning to a 100% zero emission fleet by 2040. This transition requires a balance of project delivery and efficient sequencing of facility transition to allow the SFMTA to begin multi-year procurements of new fleet. SFMTA’s Zero-Emission Rollout Plan includes an approach to facility and infrastructure conversion that would enable a full transition by 2040.</p> <p>Upgrading facility infrastructure at all six SFMTA bus facilities is required in advance of fleet procurement to successfully operate a Battery Electric Bus (BEB) fleet, and therefore the achievement of the schedule is entirely dependent on an organized and phased approach to infrastructure and facility upgrades, and on-time delivery of additional electrical supply by our utility partners. This conversion also requires off-site improvements to the SFMTA power supply to accommodate this transition. The program includes the one-time incremental cost of replacing the current biodiesel fleet with BEB technology.</p>
SFMTA – Traffic Signal State of Good Repair	<p>Replacing aged traffic signal infrastructure to improve safety and visibility at intersections for pedestrians remains underfunded. Improvements include: larger signals and mast arms to enhance signal visibility for drivers, pedestrians, and bicyclists; signs to alert drivers to turn restrictions; pedestrian countdown signals, which display the number of seconds remaining to cross the street along with the WALK sign; accessible pedestrian signals, which use audible and tactile means to communicate when it is safe to cross the street for people who are visually impaired. The SFMTA completed a condition assessment report of its signal infrastructure as part of its Asset Management Program.</p>
Multiple Departments – ConnectSF	<p>In addition to strengthening and adapting vulnerable infrastructure, the City is also working to make sure that the development of the transportation network supports San Franciscans’ vision for the future. With the help of thousands of residents who participated in focus groups, surveys, and targeted outreach, ConnectSF developed a vision, goals, and objectives that will guide the city’s long-range transportation planning. In the next phase of work, the City and partner agencies will make sure that plans, policies, and investments support the ConnectSF vision through the Transit Corridors Study, the Streets and Freeways Study, and the San Francisco Transportation Plan 2050.</p>
SFO – Emerging Projects	<p>SFO completed a recommended Airport Development Plan (ADP) in September 2016. The recommended ADP defines a series of recommended projects that would accommodate potential growth up to approximately 71.1 million annual passengers, serve as a roadmap to guide long-term Airport development, and support the Airport’s strategic objectives. Recommended ADP projects include a new terminal concourse, replacement of the Central Garage, and improvements to the International Terminal Complex.</p> <p>The recommended ADP is currently undergoing required environmental review which began in July 2017. The recommended ADP capital projects can be added to future versions of the CIP, if and when the Airport Commission deems they are warranted to address traffic growth and other factors, subject to all applicable approvals.</p>

Emerging Projects

Project Name	Description
SFCTA – Yerba Buena Island Multi-Use Path	SFCTA seeks to develop an accessible bicycle and pedestrian connection between the current terminal of the San Francisco-Oakland Bay Bridge East Span multi-use path at Vista Point and the new Treasure Island ferry terminal via Treasure Island and Hillcrest roads. The existing roadways lack sidewalks and bike lanes that would allow residents of Treasure Island and Yerba Buena Island to access the East Span. The project will enable bicycle and pedestrian commuters and recreational users the opportunity to travel between the East Bay and San Francisco using active modes and transit. The YBI Multi-Use Path also facilitates the connection from Treasure Island to the future West Span, completing the Bay Skyway from Oakland to San Francisco. The project team completed a feasibility study and is now starting the environmental approval phase.
SFCTA – I-280 Ocean Ave Off-Ramp Realignment Project at Balboa Park	The project was recommended from the Balboa Park Station Area Circulation Study, adopted by the SFCTA in June 2014. The existing I-280 southbound off-ramp has limited sight distance for vehicles exiting the off-ramp at high speed which can lead to pedestrian and bicycle crossing conflicts. The project will realign the off-ramp from a free-flow right turn into a T-intersection for safety purposes. The project will widen the off-ramp to two lanes and install a retaining wall. The rough order of magnitude estimate for planning, design, and implementation is up to \$22 million for the southbound ramp. The project received Caltrans project approval in 2021 and final design started in late 2022.

TABLE 13.1 - TRANSPORTATION FINANCIAL SUMMARY

PROGRAMS/PROJECTS (Dollars in Thousands)	Prior Years	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029 - 2033	Plan Total	
SPENDING PLAN									DEFERRED
Municipal Transportation Agency (SFMTA)	423,562	388,179	543,351	744,754	769,003	599,595	2,947,976	5,992,858	9,403,640
International Airport (SFO)	5,891,994	167,786	75,204	16,500	17,000	580,182	1,221,095	2,077,767	-
San Francisco Bay Area Rapid Transit (BART)	-	245,743	308,162	165,098	112,248	105,140	279,402	1,215,792	1,101,098
Interagency Initiatives	2,932,603	633,218	433,938	902,854	1,378,229	1,176,580	3,361,663	7,886,482	-
TOTAL	9,248,159	1,434,925	1,360,655	1,829,206	2,276,480	2,461,496	7,810,136	17,172,899	10,504,738
REVENUES									
Transportation Bond 2026	-	-	-	-	250,000	50,000	-	300,000	
Transportation Bond 2032	-	-	-	-	-	-	200,000	200,000	
Local	783,342	337,459	342,853	515,385	384,002	477,920	1,294,610	3,352,228	
Regional	91,888	100,482	197,185	190,069	166,846	161,907	180,491	996,980	
State	1,028,501	342,880	122,311	185,464	188,057	284,703	169,762	1,293,178	
Federal	1,386,700	349,396	411,091	841,647	915,710	669,593	3,309,751	6,497,188	
Other	5,877,020	195,933	156,290	32,800	108,553	648,998	1,532,709	2,675,282	
TOTAL	9,167,450	1,326,150	1,229,729	1,765,365	2,013,167	2,293,121	6,687,323	15,314,855	
<i>Total San Francisco Jobs/Year</i>		5,574	5,169	7,420	8,461	9,638	28,107	64,368	
<i>Annual Surplus (Deficit)</i>	(80,709)	(108,776)	(130,926)	(63,841)	(263,313)	(168,375)	(1,122,813)	(1,938,753)	
<i>Cumulative Surplus (Deficit)</i>	(80,709)	(189,485)	(320,411)	(384,252)	(647,565)	(815,939)	(1,938,753)		