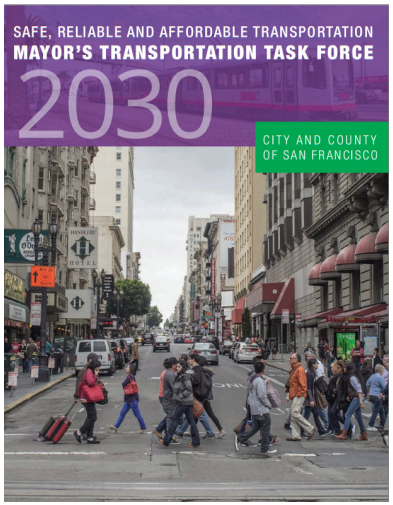
SFMTA

Transportation 2050

2022 Muni Reliability and Street Safety Bond

Capital Planning Committee
December 13, 2021

Transportation 2050 (T2050) builds upon the work done by the two prior Transportation Task Forces.



2013

2018

Reference: Transportation 2030 Report
Reference: Transportation 2045 Report

Transportation 2050 – Needs and Gaps

The SFMTA took the **vision of ConnectSF** and the capital needs in the agency's capital plan and looked at operational and capital needs for **the next 30-years**.

ConnectSF

- Vision for the Transportation System
- Supported by Federal / State / Local resources
- Includes investments in Service and Infrastructure

20 Year Capital Plan

- 20 Years of Fiscally Unconstrained Infrastructure Needs identified in long range plans as well as additional needs identified by stakeholders.
- Includes needs to maintain the system as well as expand.
- Informs 5-Year Constrained Capital Improvement Program

10-Year Capital Plan *Uses*

5- Year Capital Improvement Program (CIP)

- 5 - Year financially constrained program of projects
- Includes detailed revenue projections for 30+ funding sources (Sales Tax, Federal Funds, State Funds, Regional Funds)
- Programs funds to phases of project planning, design and implementation.

10-Year Capital Plan *Sources*

Reference: Transportation 2050

For just capital we have refined our estimates to a year-by-year model.

$10.6B

What the vision will require us to spend over 10-years

$4.3B

We will spend over the next 10-years (all sources)

($6.3B)

T2050 Funding Gap
Cumulative total over 10-years

Fed Infrastructure Bill

On November 15, 2021, H.R. 3684, the "Infrastructure Investment and Jobs Act," was signed reauthorizing surface transportation programs for five years and one-time additional funds for key infrastructure priorities including transportation.

	Preliminary Projected Increase for San Francisco - Oakland UZA* in FY22
§ 5307	31%
§ 5337 Fixed Guideway State of Good Repair	18%

*Provided by MTC staff in September, 2021.

- Federal formula funds are distributed by the Metropolitan Transportation Commission (MTC) through the Transit Capital Priorities Program
- Historically, SFMTA has received a significant portion of these funds towards its light rail and motorcoach fleet replacement program and receives about one third of fixed guideway funds towards replacing and rehabilitating its fixed guideway and train control system.

Fed Infrastructure Bill

- The infrastructure bill also provided significant plus ups to competitive programs as well as creating several new programs focusing on climate change and traffic safety.
- The SFMTA is a frequent competitor for many of these funds and particularly anticipates benefitting from the plus ups to these programs.

	Projected Increase*
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	**70.5%**
Highway Safety Improvement Program (HSIP)	**34.4%**
Bus and Bus Facilities	**88%**
Low and No Emissions	**1401% - Over $5 Billion/5 years**
Safe Streets For All	**NEW - $6 billion/5 years**

T2050 Revenues

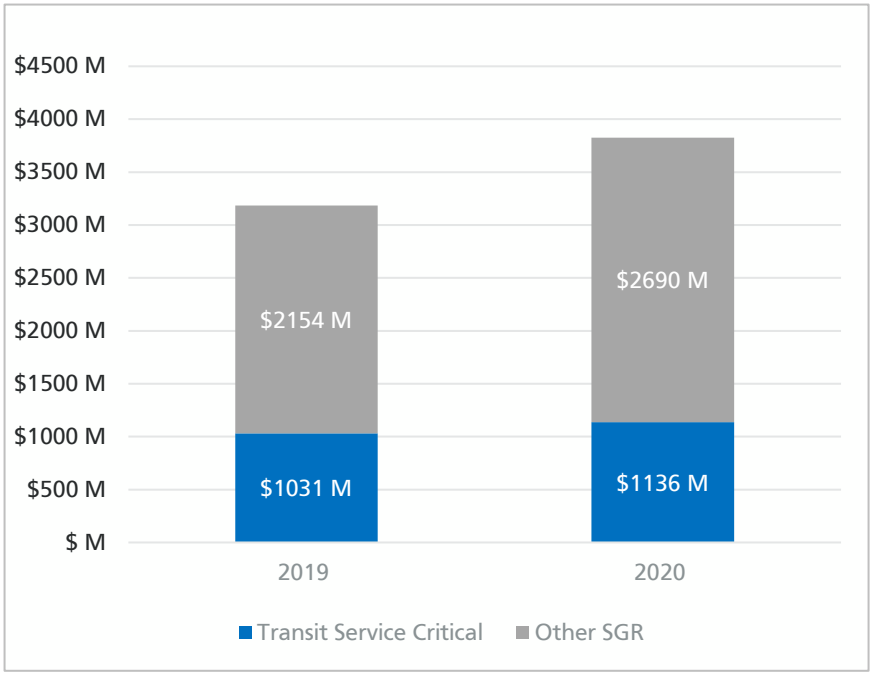
Source	Benefits	Short Term $/yr	Long Term $/yr
Transportation Special Tax	Dedicated tax for transportation, providing a predictable stable source for transit service and maintenance. May be bonded against for near-term capital infrastructure investment, reducing long term maintenance.	**$50** m/yr	**$60-70** m/yr
Parking Tax	Increase existing San Francisco Parking Tax with opportunities to reform or modify for transportation infrastructure, transit service and maintenance.	**$20** m/yr	**Declining**
CCSF General Obligation Bond Program	The SFMTA as part of the City GO Bond Program has allowed for critical infrastructure investment, safety improvements and transit reliability investments – reducing the cost of operations and long-term maintenance.	**$40** m/yr	**$50** m/yr
Federal Grants	The current proposed bi-partisan Infrastructure Bill provides opportunities for increased Federal support for up to 5-years for transportation infrastructure and maintenance campaigns.	**$35** m/yr	**$40** m/yr
State Grants	The current State budget designates significant additional dollars to transportation available through grants for transportation infrastructure.	**$7** m/yr	**Unknown**
Development Revenue	Development of SFMTA properties provide significant long-term opportunities to produce revenues that can go directly toward transportation infrastructure, transit service and maintenance.	**$5** m/yr	**$25-35** m/yr

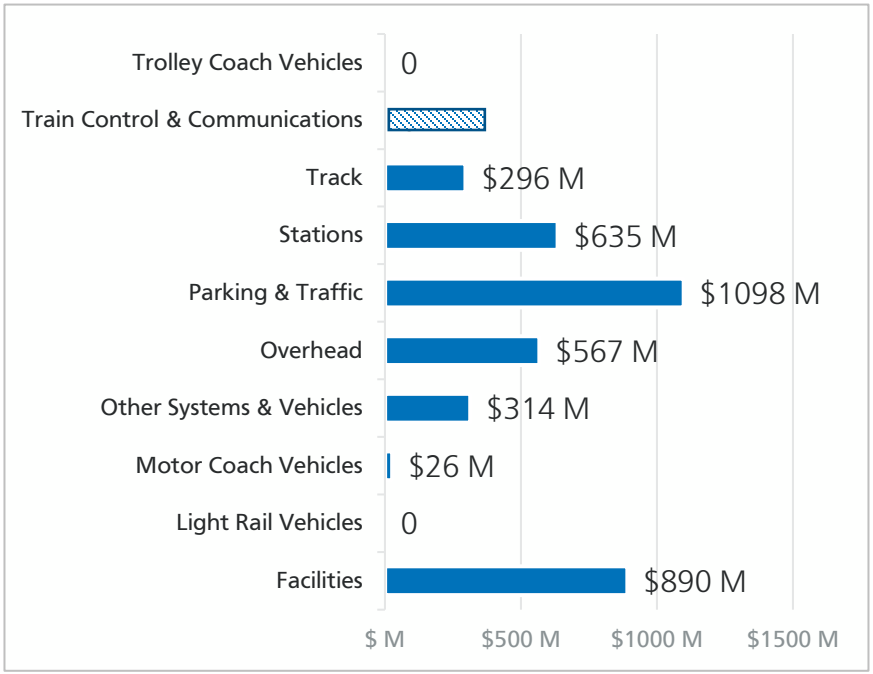

Improvement
Reliability
Safety

State of Good Repair

$3.83 B
Backlog

The value of assets beyond their useful life is $3.83 billion. This **backlog** represents deferred investments in infrastructure replacement or rehabilitation. The backlog represents assets where an end-of-lifecycle decisions needs to be made; either these assets will be retired, replaced in-kind, or upgraded with new technology or systems.

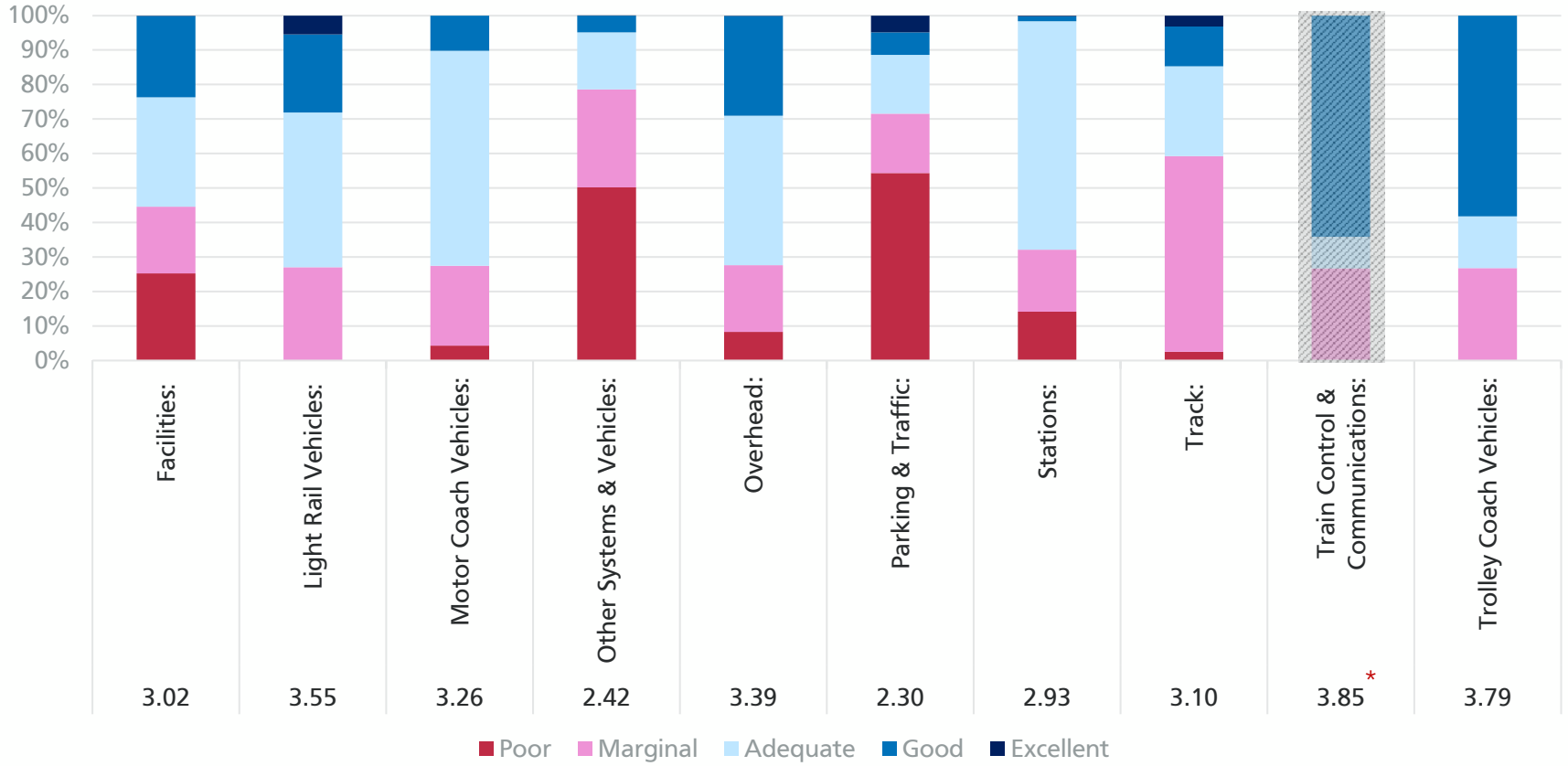




Reference: [2020 SFMTA State of Good Repair Report]

State of Good Repair

Age Based Condition Scores are based on the age of an asset and use a scale of 1 to 5. The weighted average condition score for all SFMTA assets in FY2020 is 3.07.

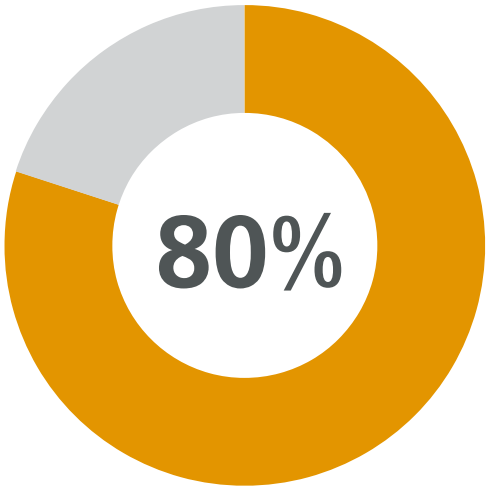


*The train control system is not accurately modeled in our analysis; we know the system is near the end of its useful life with a higher replacement cost than presented in the 2020 SGR Report.

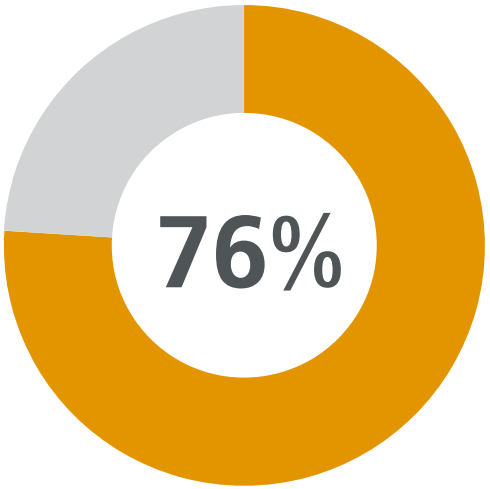
Reference: [2020 SFMTA State of Good Repair Report]

Fast and Convenient Transit

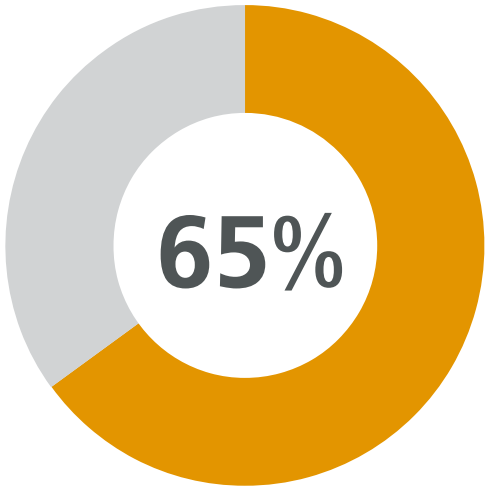
A majority of survey respondents say it is "very important" or "extremely important" to ...



Provide quick, convenient transit access to all parts of San Francisco



Reduce delays to make Muni more reliable

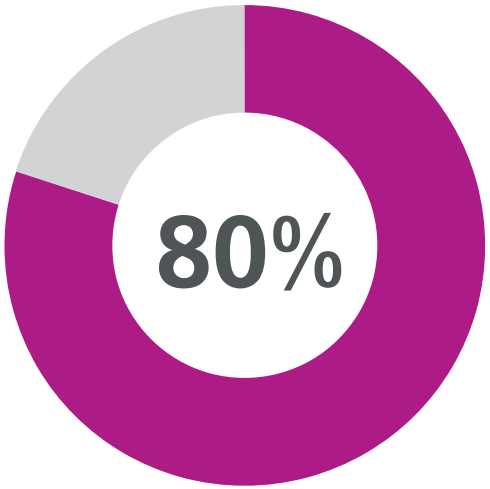


Reduce crowding on Muni

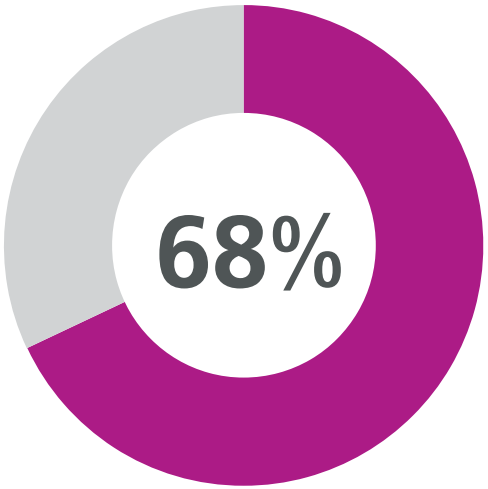
Source: San Francisco citywide survey conducted by FM3, April 2021

More Repairs and Maintenance

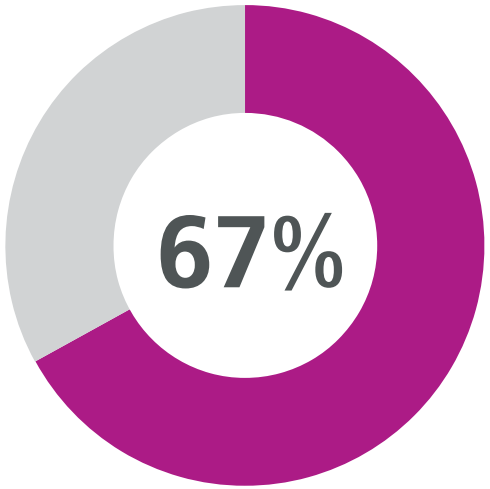
A majority of survey respondents say it is "very important" or "extremely important" to ...



Repair and maintain Muni equipment and facilities to ensure vehicles' safety, frequency, and reliability



Address the backlog of maintenance work

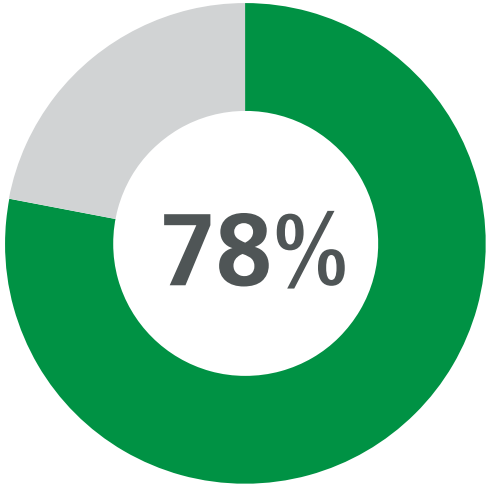


Rebuild San Francisco's aging rail network

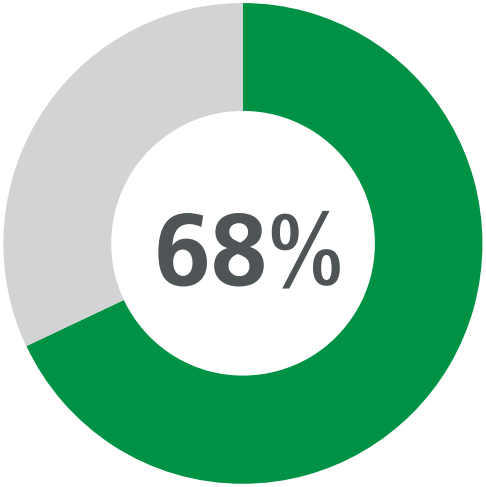
Source: San Francisco citywide survey conducted by FM3, April 2021

Improving Safety and Access

A majority of survey respondents say it is "very important" or "extremely important" to ...



Ensure Muni service is inclusive and accessible to all



Make street safety improvements for walking

Source: San Francisco citywide survey conducted by FM3, April 2021

Key elements to consider in programming general obligation bonds includes the following:

Project Delivery

- Projects can proceed with significant cashflow within 1-3 years
- Project concepts, and initial planning and outreach largely complete
- Staffing resources are in place to deliver the project as programmed

Delivered Asset

- Projects should deliver tangible assets or extend the life of assets
- Overall the assets should have a useful life of 15 years or more
- Typically civil, transit infrastructure, building or signal infrastructure

Critical Need

- Gap in funding exists based on existing planning documents or work
- Projects or programs have few other funding alternatives (state, federal)

2022 Muni Reliability and Street Safety Improvement Bond

GO BOND COMPONENTS	
Make the Transportation System Work Better	**Amount ($m)**
Speed up Muni repairs and keep public transit moving by repairing, upgrading and maintaining aging bus yards, facilities and equipment	*$250*
Enable faster, more reliable and more frequent Muni service by improving on-street infrastructure for public transit	*$26*
Increase subway capacity, reduce delays, and deliver dependable, high-frequency transit by modernizing the Muni train control system	*$10*
Improve Street Safety and Traffic Flow	
Improve safety and visibility at intersections by upgrading traffic signals, signage, and crossings	*$42*
Increase safety for walking and bicycling and access for Muni connections along major corridors by redesigning streets and sidewalks	*$42*
Slow speeds and reduce crashes by implementing traffic calming and speed reduction tools	*$30*
TOTAL	***$400***

Make the Transportation System Work Better

Repair, upgrade, and maintain aging facilities and equipment

Program Summary

To speed up Muni repairs and maintenance and keep public transit moving, we will repair, renovate, and modernize SFMTA bus yards, facilities, and equipment through the agency's Building Progress program.

Project Prioritization Criteria

- Equity
- Access
- Safety

$250M

Why is this program important?

Efficient and timely repairs to buses and trains increases Muni's reliability and saves the SFMTA money.

Larger yards provide needed space for a growing Muni fleet.

Improved working conditions for frontline staff give them modern tools and space to efficiently do their jobs in earthquake-ready facilities.

SFMTA is working towards a 100% zero-emission fleet as part of its leadership in confronting climate change. Renovated yards will support the electric vehicle charging infrastructure needed to achieve a zero-emissions fleet.

2022 Muni Reliability and Street Safety Improvement Bond

$250M

Make the Transportation System Work Better

Repair, upgrade, and maintain aging facilities and equipment

Electrification Infrastructure (Trolley & E-Bus)

Seismic Upgrades & Building Replacement

Bus Washers & Maintenance Bay Replacement

Capacity Expansion for Growing Fleet

Make the Transportation System Work Better

Muni Network Improvements

$26M

Program Summary

Muni Network Improvements consist of smart traffic signals, wider sidewalks and bus bulbs, and dedicated transit lanes to reduce travel times and keep buses and rail moving.

Project Prioritization Criteria

- Ridership
- Service Frequency
- Equity
- Network Connectivity

Why is this program important?

Improvements will go to routes that carry 80% of Muni riders including passengers who depend most on public transportation.

Improvements will go to routes that have shown crowding during peak hours in winter of 2020.

Transit priority improvements have demonstrated 10-25% travel time savings in past projects. Collectively, these improvements support a more reliable bus and rail network.

Freeing buses from traffic allows Muni to serve more people with less resources. These savings can be reinvested in the system.

2022 Muni Reliability and Street Safety Improvement Bond

$26M

Make the Transportation System Work Better

Muni Network Improvements

Dedicated Transit Only Lanes

Transit Signal Priority & Signal Upgrades

Boarding Improvements (Islands & Sidewalks)

Travel Time Reduction Improvements/Projects

Make the Transportation System Work Better

Muni Rail Modernization, primarily upgrading the train control system.

Program Summary

Modernize systems that are key for operating the transit system. Replacing the aging train control system, wayside signals, switch machines, and supporting guideway infrastructure.

Project Prioritization Criteria

- Ridership
- Service Frequency
- Equity
- Network Connectivity

$10M

Why is this program important?

Modernized train management leads to more efficient operations and reduces bunches and gaps between trains.

New train communications systems allows for longer trains, reduced crowding, and capacity for future growth.

The current aging train control system is frequently responsible for slowdowns in the Market Street Subway, upgrading this system would make the schedule more dependable and travel times more consistent.

The new train control system will complement Muni's new light rail fleet to optimize the riding experience for Muni patrons.

2022 Muni Reliability and Street Safety Improvement Bond

$10M

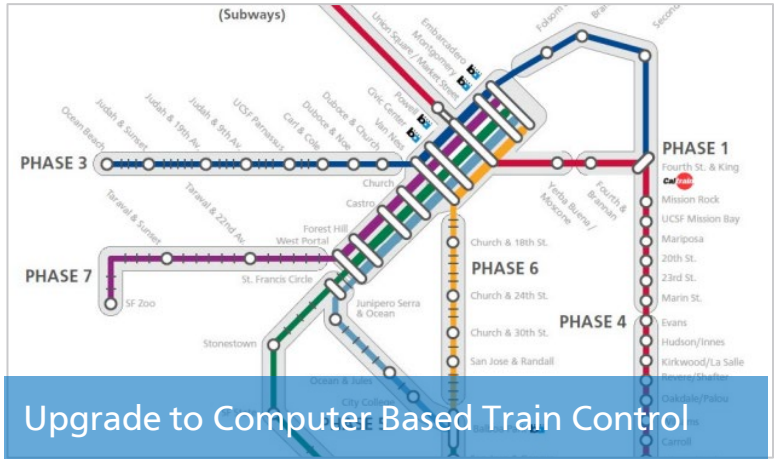
Make the Transportation System Work Better

Muni Rail Modernization, primarily upgrading the train control system.

Automatic Train Control System Replacement

Surface Train Control

Tunnel & Infrastructure Improvements



Upgrade to Computer Based Train Control

Improve Street Safety and Traffic Flow

Traffic Signal and Street Crossing Improvements in Equity Neighborhoods

$42M

Program Summary

Traffic signal upgrades improve safety and visibility at intersections and other places where people may be crossing the street.

Project Prioritization Criteria

- Equity
- Collision History
- Traffic Volumes
- Multiple Mode Benefits

Why is this program important?

Signal upgrades make intersections work for everyone, especially people with disabilities and other vulnerable road users.

Improvements will be made on the High Injury Network where a preponderance of traffic deaths and severe injuries are concentrated. Streets in historically disadvantaged communities are almost twice as likely to be on the High Injury Network.

2022 Muni Reliability and Street Safety Improvement Bond

$42M

Improve Street Safety and Traffic Flow

Traffic Signal and Street Crossing Improvements in Equity Neighborhoods

Traffic Signal & Infrastructure Replacement

Audible Pedestrian Signals

Pedestrian Countdown Signals

Corridor and Full Intersection Improvements

Improve Street Safety and Traffic Flow
On-Street Improvements

$42M

Program Summary
Redesigning major corridors of the public right of way enhances the quality and use of public spaces, improves safety for all street users, improves Muni access and service, and fixes critical aging transportation infrastructure.

Project Prioritization Criteria
- Collision History
- Equity Neighborhoods
- Nearby Destinations
- Community Requests

Why is this program important?
This program will focus on quality-of-life improvements along key corridors by providing a better experience for residents, visitors, and workers who bike, walk, and take transit.

The program builds on near-term improvements designed to address collision and fatality trends to transform corridor street design and make safety improvement more permanent.

Multimodal enhancements will support increased housing density, affordability, and mobility.

Corridor improvements to support existing and new investment in commercial corridors.

2022 Muni Reliability and Street Safety Improvement Bond

$42M

Improve Street Safety and Traffic Flow

On-Street Improvements

Corridor Bicycle Network Improvements

Corridor Pedestrian Safety Improvements

Complete Street Corridor Improvements

Improve Street Safety and Traffic Flow

Speed Management Program

$30M

Program Summary

Implement proven interventions to slow motor vehicle speeds and improve safety, such as application-based residential traffic calming, lowered speed limits along neighborhood corridors, and speed radar signs to improve driver awareness.

Project Prioritization Criteria

- Collision History
- Equity Neighborhoods
- Nearby Destinations
- Community Requests

Why is this program important?

Every year in San Francisco, about 30 people lose their lives and over 500 more are seriously injured while traveling on city streets.

The higher the speed of a crash, the higher the chances are that someone will be killed or seriously injured.

This program invests in street design that supports slower speeds to protect lives.

$30M

Improve Street Safety and Traffic Flow

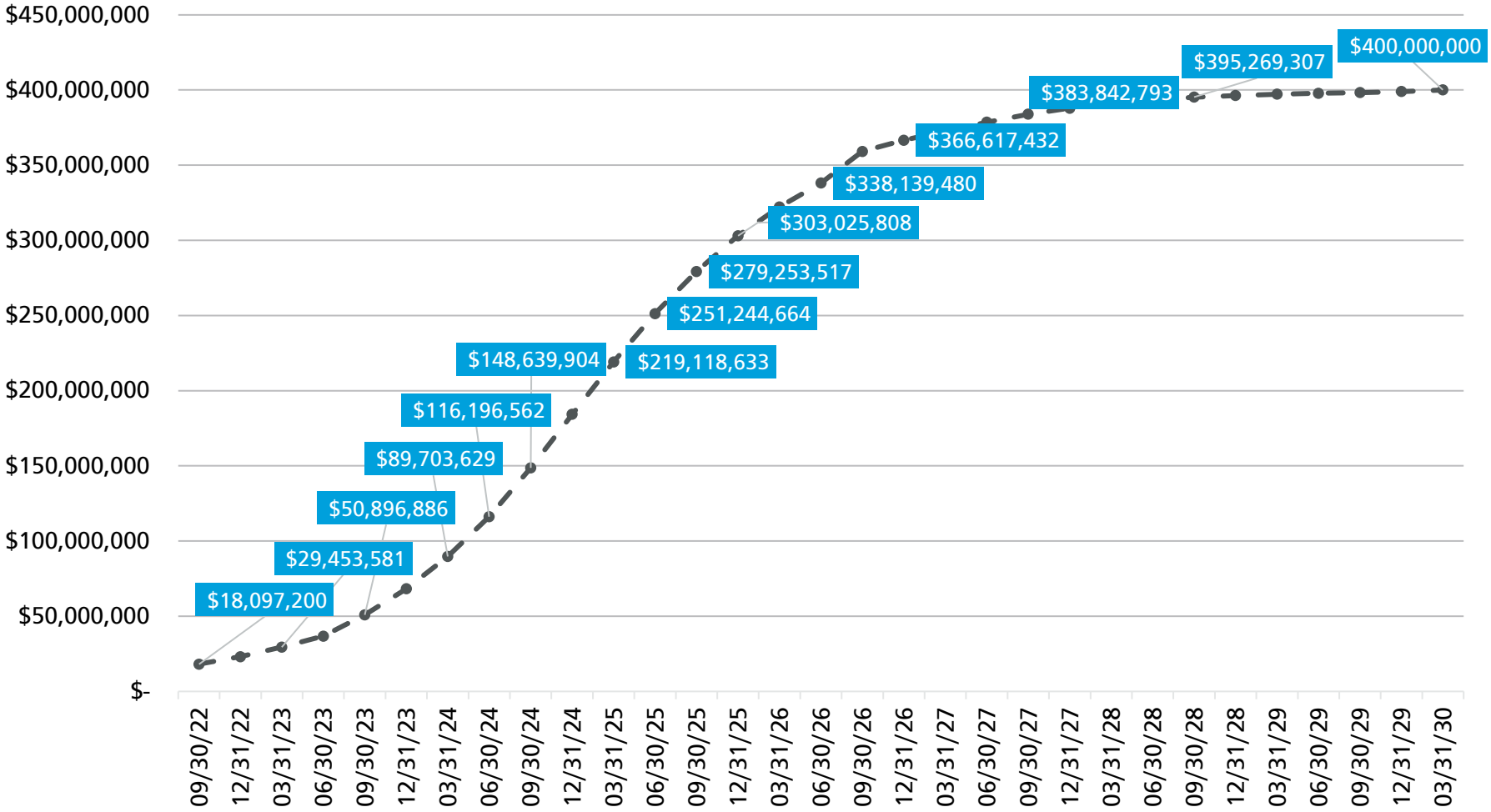
Speed Management Program

Traffic Calming/Speed Reduction

High Injury Network Intersections & Corridors

Quick Build Safety Improvements

$400M Transportation Bond –I Spend-down Projection*



*Based on cashflow requirements of eligible projects under the proposed bond program

Thank You.

San Francisco
TRANSPORTATION 2050