



SFMTA

Transportation 2050

2022 Muni Reliability and Street Safety Bond



Policy & Governance Committee of the SFMTA Board of Directors
October 26, 2021



Transportation 2050 (T2050) presents possible futures and actions to address transportation needs and priorities in San Francisco.

Years of community planning, visioning and technical analysis

Transportation
Task Force 2013
(T2030)

Transportation
Task Force 2018
(T2045)

ConnectSF

Vision Zero Action Plan

SFMTA 20-Year Capital Plan

SFMTA State of Good Repair Report

2021 SFMTA Community Survey

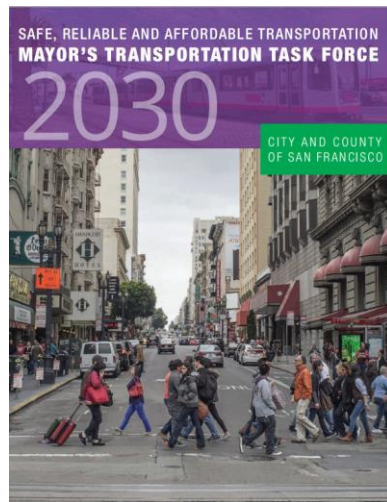
SFMTA 5-Year CIP

SFMTA 2-Year Budget

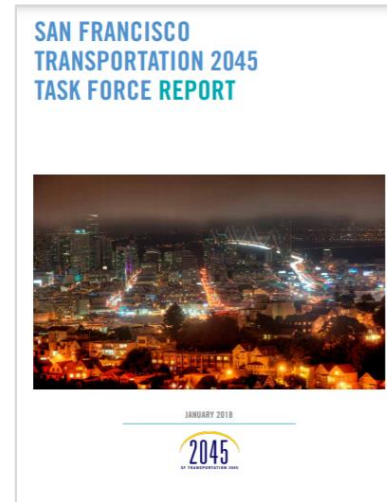
SF Transportation Plan



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



2013



2018

Reference: [Transportation 2030 Report](#)

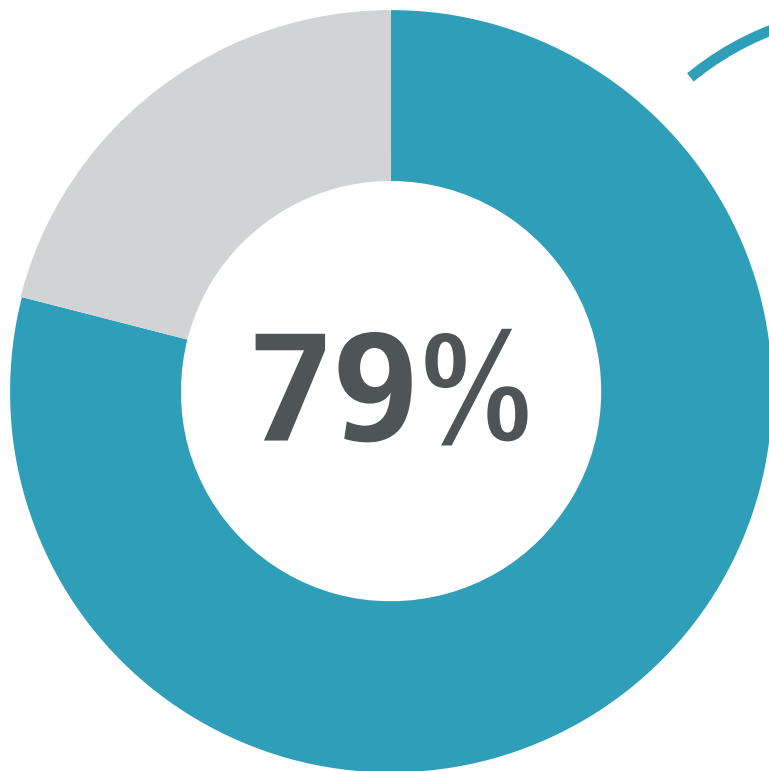
Reference: [Transportation 2045 Report](#)

**In Spring 2021, the SFMTA
completed a Community
Survey to help identify
priorities post-pandemic.**

Investing Equitably



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



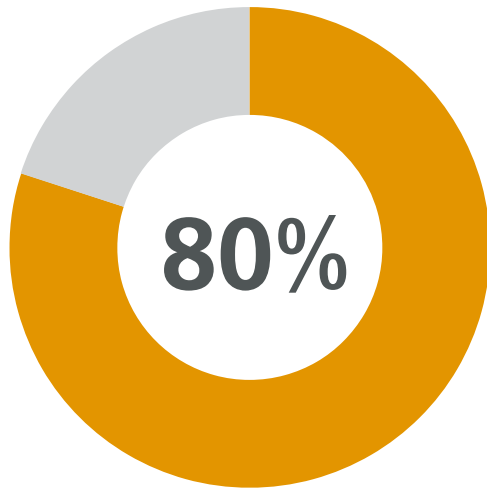
Increase and improve Muni service for the communities most dependent on transit

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

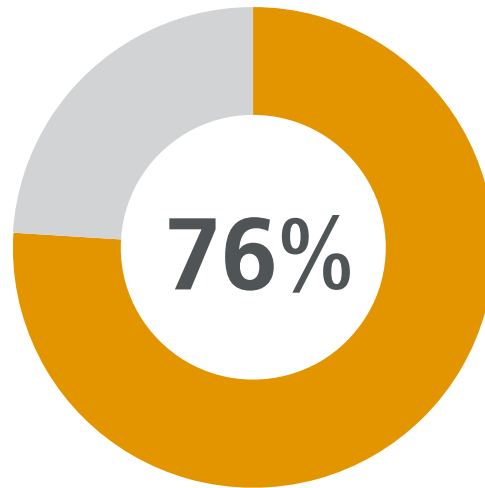
Fast and Convenient Transit



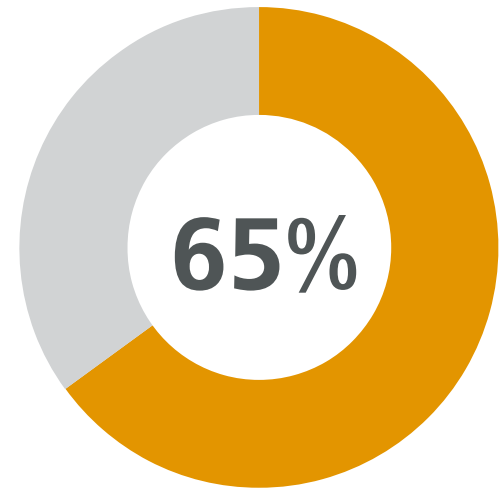
A majority of survey respondents say it is “very important” or “extremely important” to ...



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



Reduce delays to make Muni more reliable



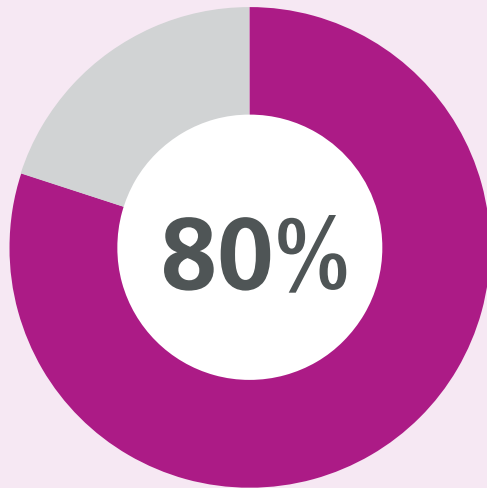
Reduce crowding on Muni

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

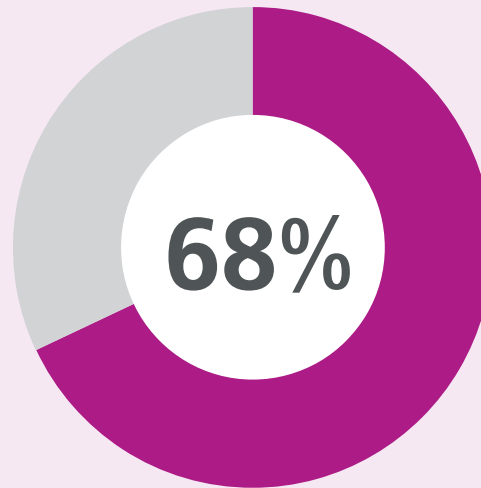
More Repairs and Maintenance



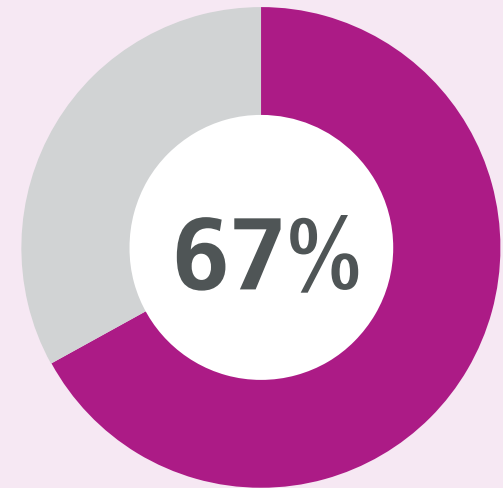
A majority of survey respondents say it is “very important” or “extremely important” to ...



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



Address the backlog of maintenance work



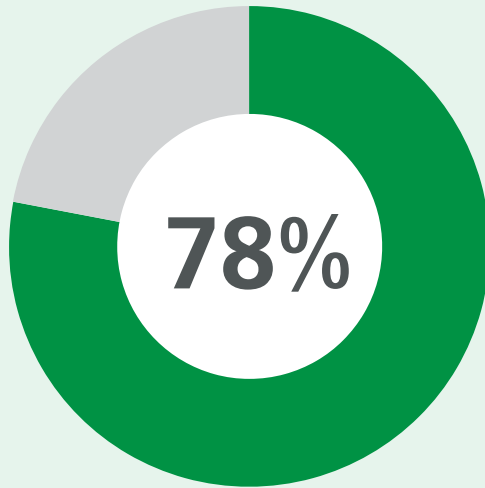
Rebuild San Francisco’s aging rail network

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

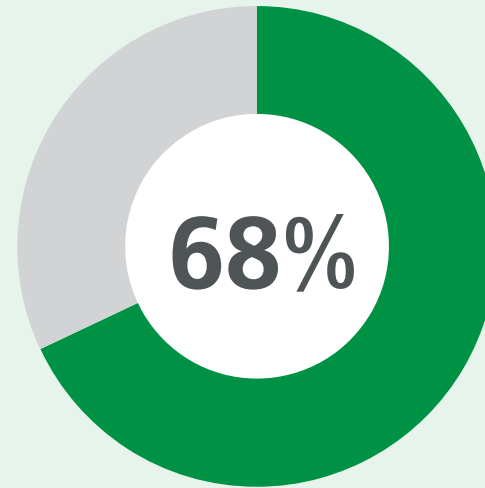
Improving Safety and Access



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

Transportation 2050 programmatic objectives reflect system and community needs.



INVESTING EQUITABLY



Fast and Convenient Transit

1. Create a Five-Minute Network
2. Expand the rail network



More Repairs and Maintenance

1. Make the transportation system work
2. Modernize the rail and subway system



Improving Safety and Access

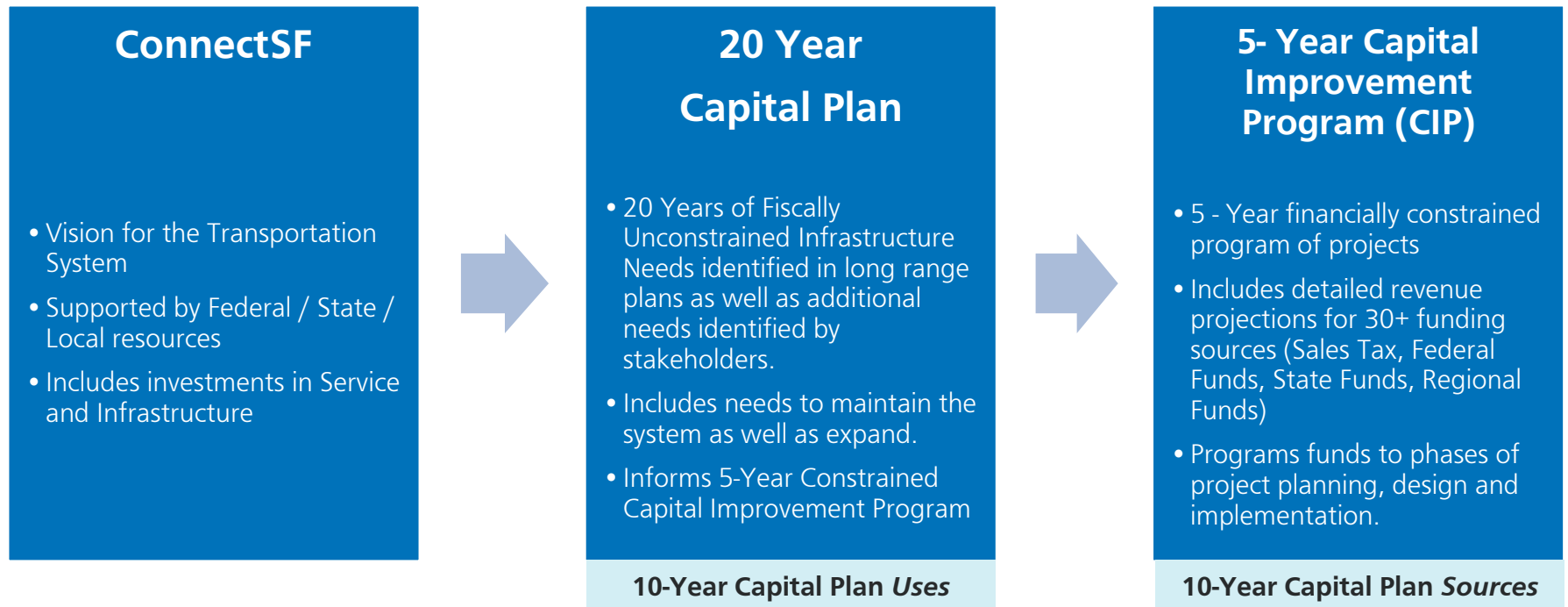
1. Make streets safer
2. Make the transportation system universally accessible

Informed by ConnectSF and various other planning efforts we completed an update of the City's transportation infrastructure needs.



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**.



Reference: [Transportation 2050](#)

The below reflects both *capital and operating needs* over the next 30-years.



INVESTING
EQUITABLY



Fast and
Convenient
Transit



More Repairs
and
Maintenance



Improving
Safety
and Access

\$111.3B

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

\$63.4B

We will spend over the
next 30-years

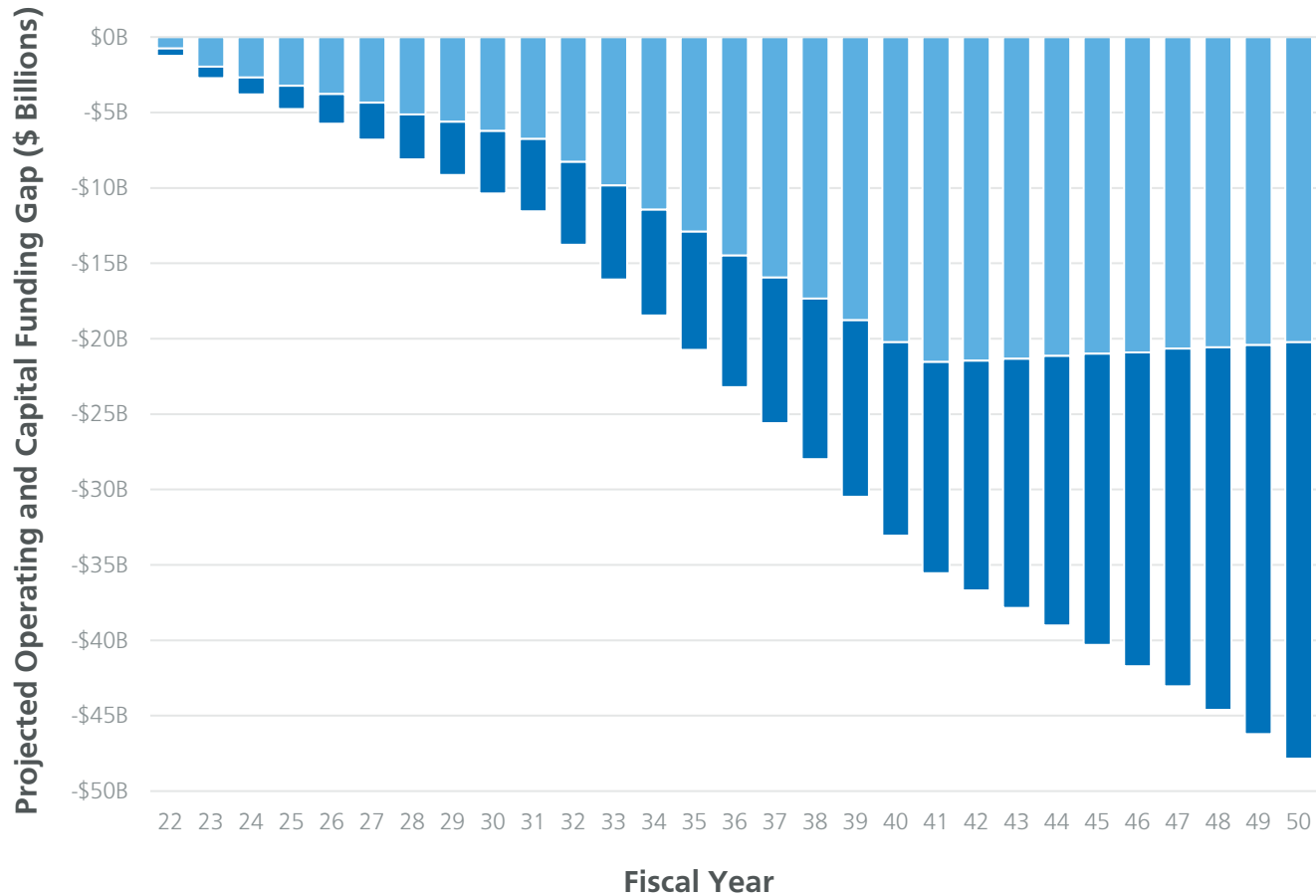
57% funded

(\$47.8B)

T2050 Funding Gap
Cumulative total over 30-years

43% funding gap

Capital and Operating Gaps are growing over time, we have completed a year-by-year analysis.

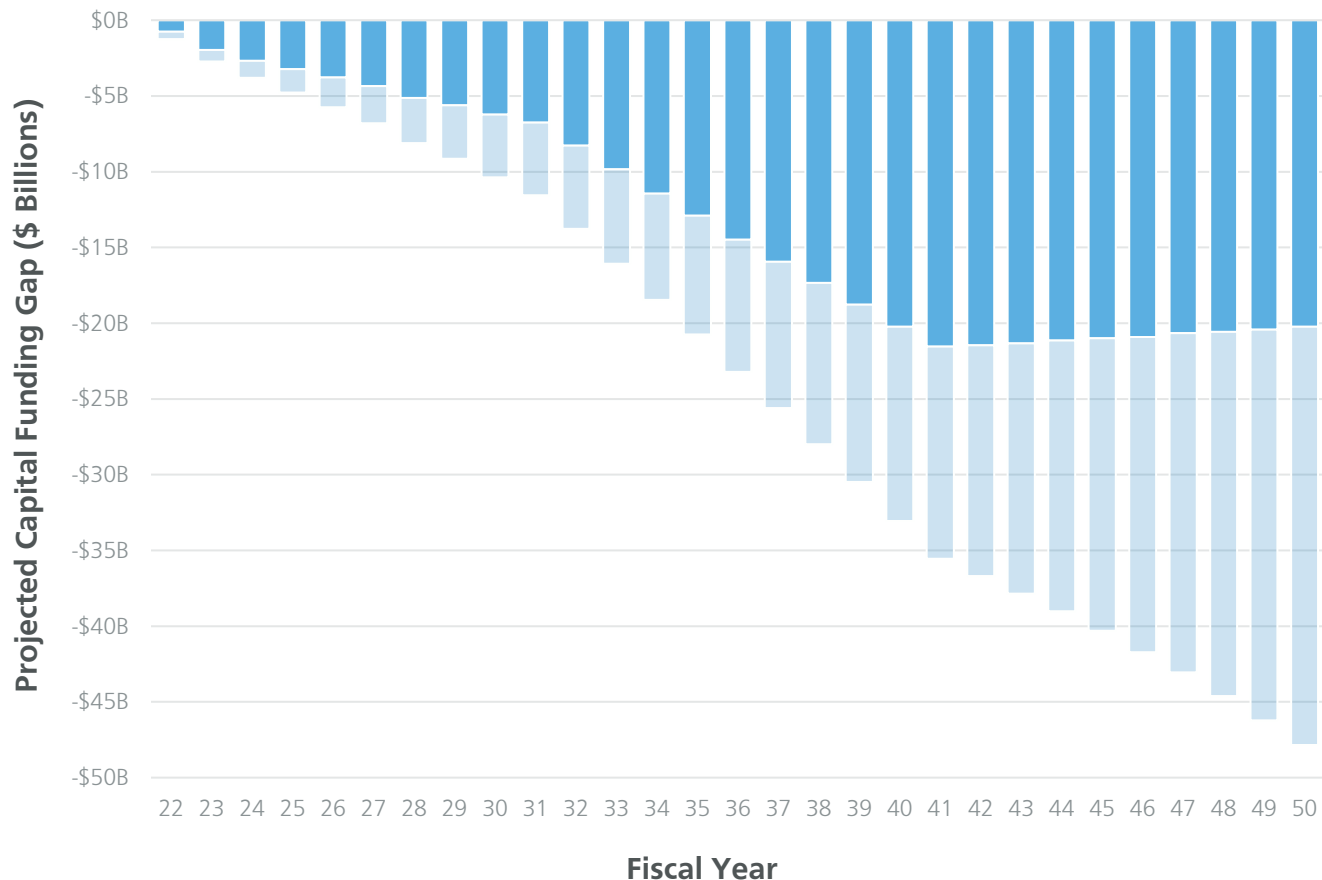


\$1.6B

Average annual funding gap over the next 30 years, leading to a cumulative total gap of \$47B



Capital Needs grow, but eventually flatten out *if* the infrastructure replacement backlog is closed.



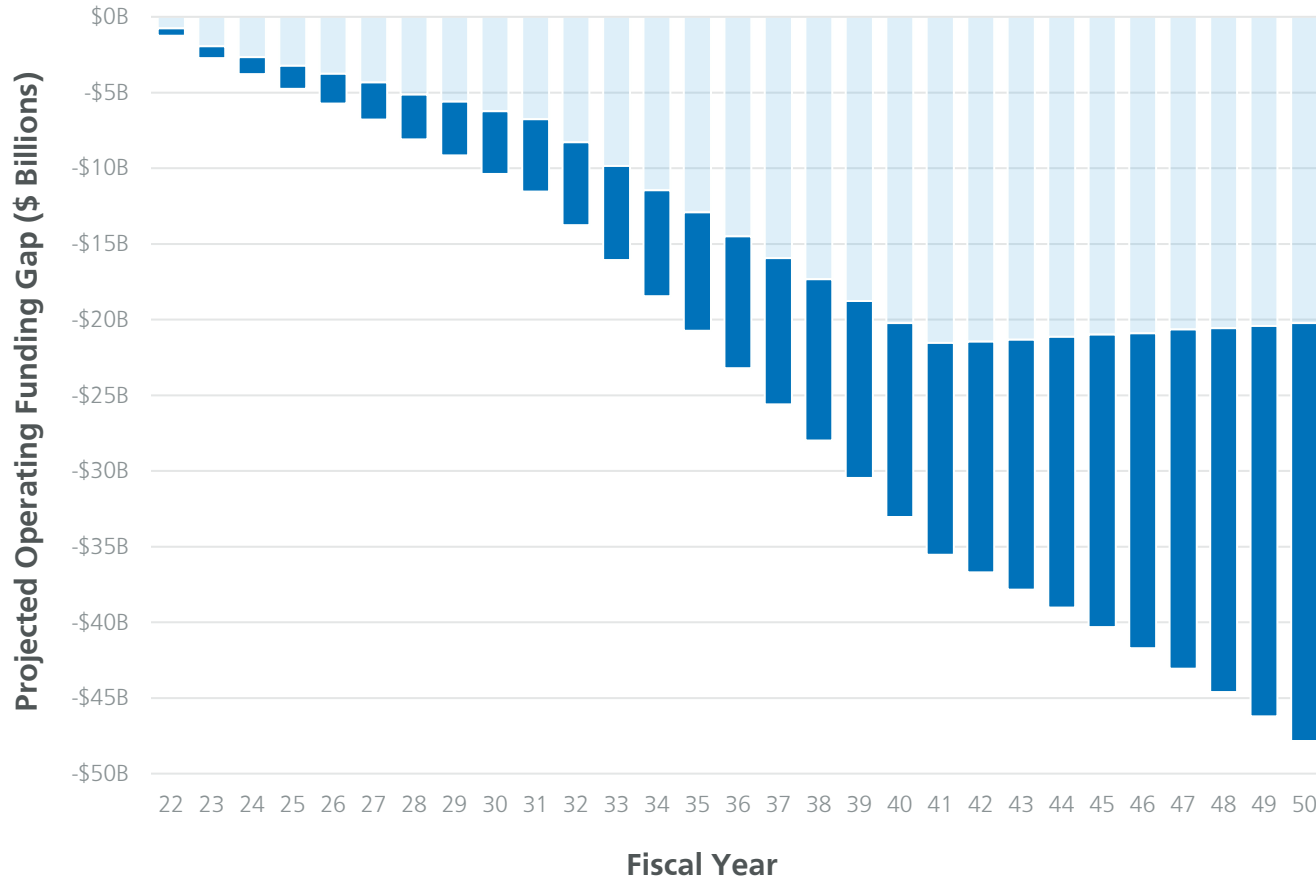
\$674M

Average Annual Capital Funding Gap

To keep the system running smoothly and expand it based on your priorities



Operating needs grow with the cost of living and as infrastructure is expanded.



\$921 M

**Average Annual
Operating
Funding Gap**

To run trains and buses in line with your priorities



When looking at a 10-year window, the gap for operations and capital is \$20 billion.



INVESTING EQUITABLY



Fast and
Convenient
Transit



More Repairs
and
Maintenance



Improving
Safety
and Access

\$35.4B

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

\$15.2B

We will spend over the
next 30-years

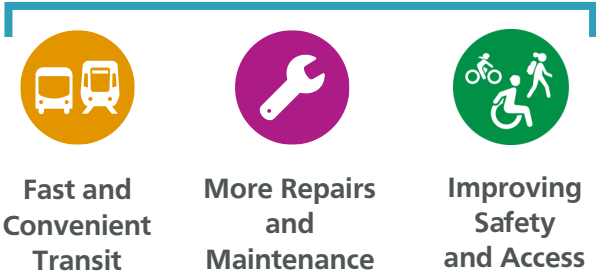
(\$20.2B)

T2050 Funding Gap
Cumulative total over 30-years

For 10-years of capital/infrastructure we have refined our estimates to a year-by-year model.



INVESTING EQUITABLY



\$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

What became clear is the immediate need is to invest in more maintenance and repairs, and make sure post-pandemic, the transportation system works.

State of Good Repair



What is State of Good Repair?

The SFMTA defines State of Good Repair as the condition in which the Agency's assets can operate at a full level of performance. State of Good Repair investment includes any spending that ensures an asset necessary for delivery of transportation service to the public or supportive of staff needs remain effective, efficient, reliable, and safe.

3.07

1 - 5 Scale
2.5 or greater in
State of Good
Repair

Age Based Condition
Score of all infrastructure

\$15.6B

Total Capital Inventory

24.6%

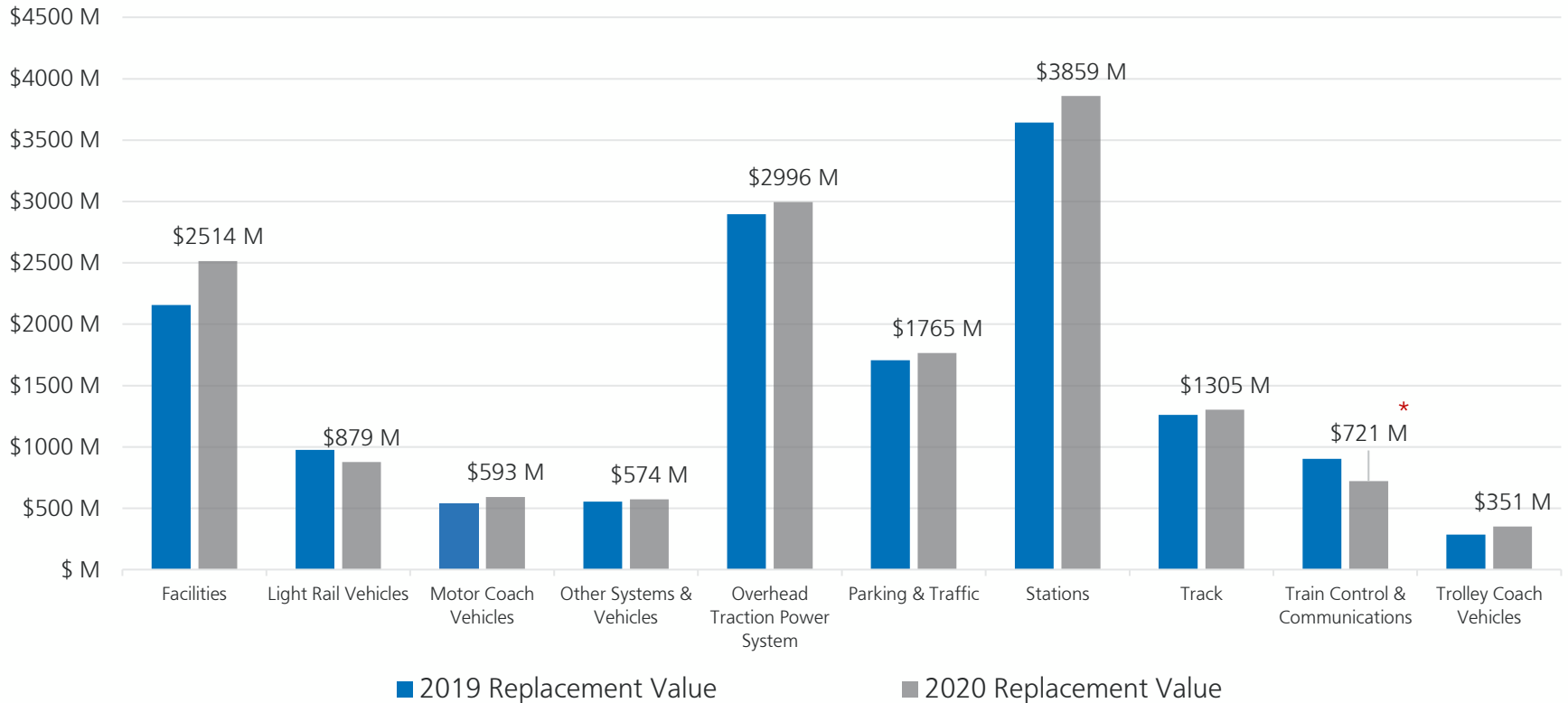
Percent of SFMTA Assets
operating beyond expected
useful life

Reference: [2020 SFMTA State of Good Repair Report](#)

State of Good Repair



The total SFMTA asset replacement value is estimated at \$15.6 billion. Asset replacement value provides a baseline when assessing levels of investment across asset classes.



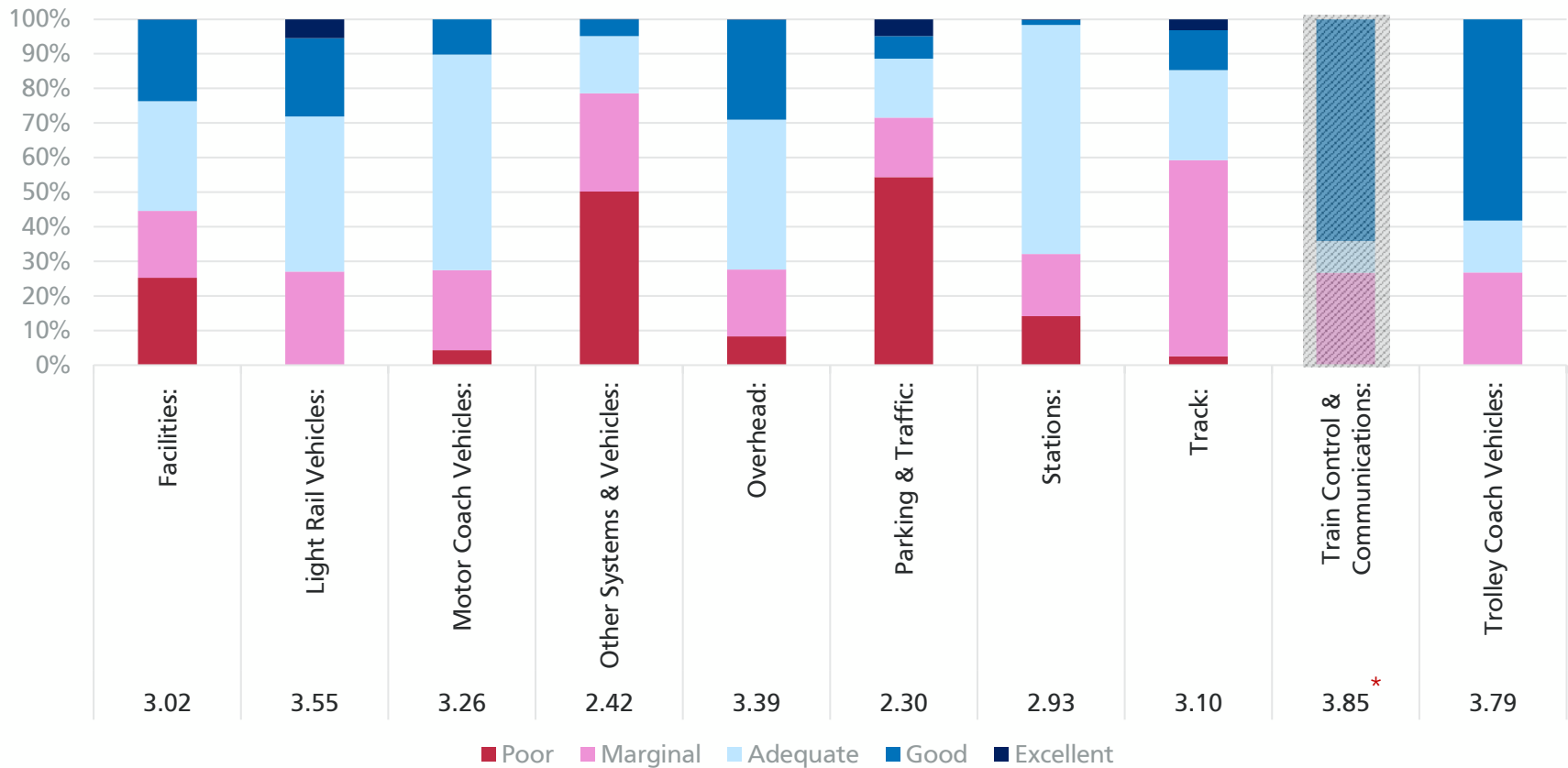
*The train control system is not accurately modeled in our analysis; we know the system is near the end of its useful life with a higher replacement value than presented in the 2020 SGR Report.

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.

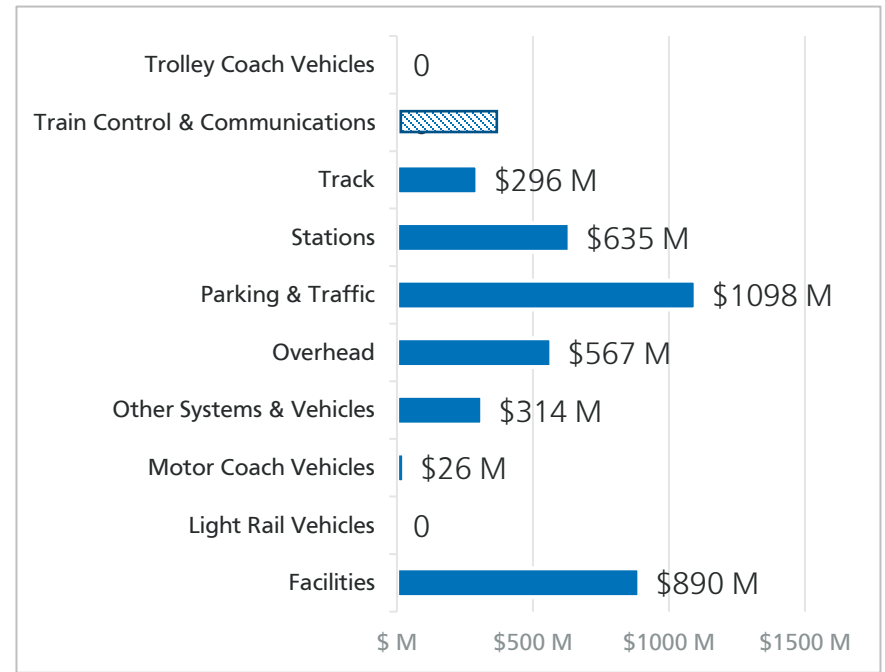
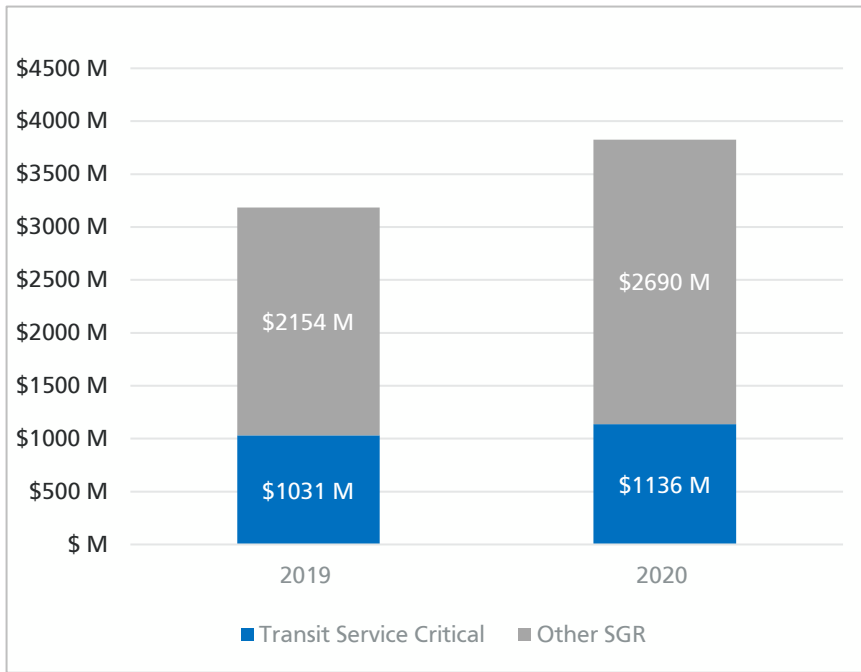
Reference: [2020 SFMTA State of Good Repair Report](#)

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.

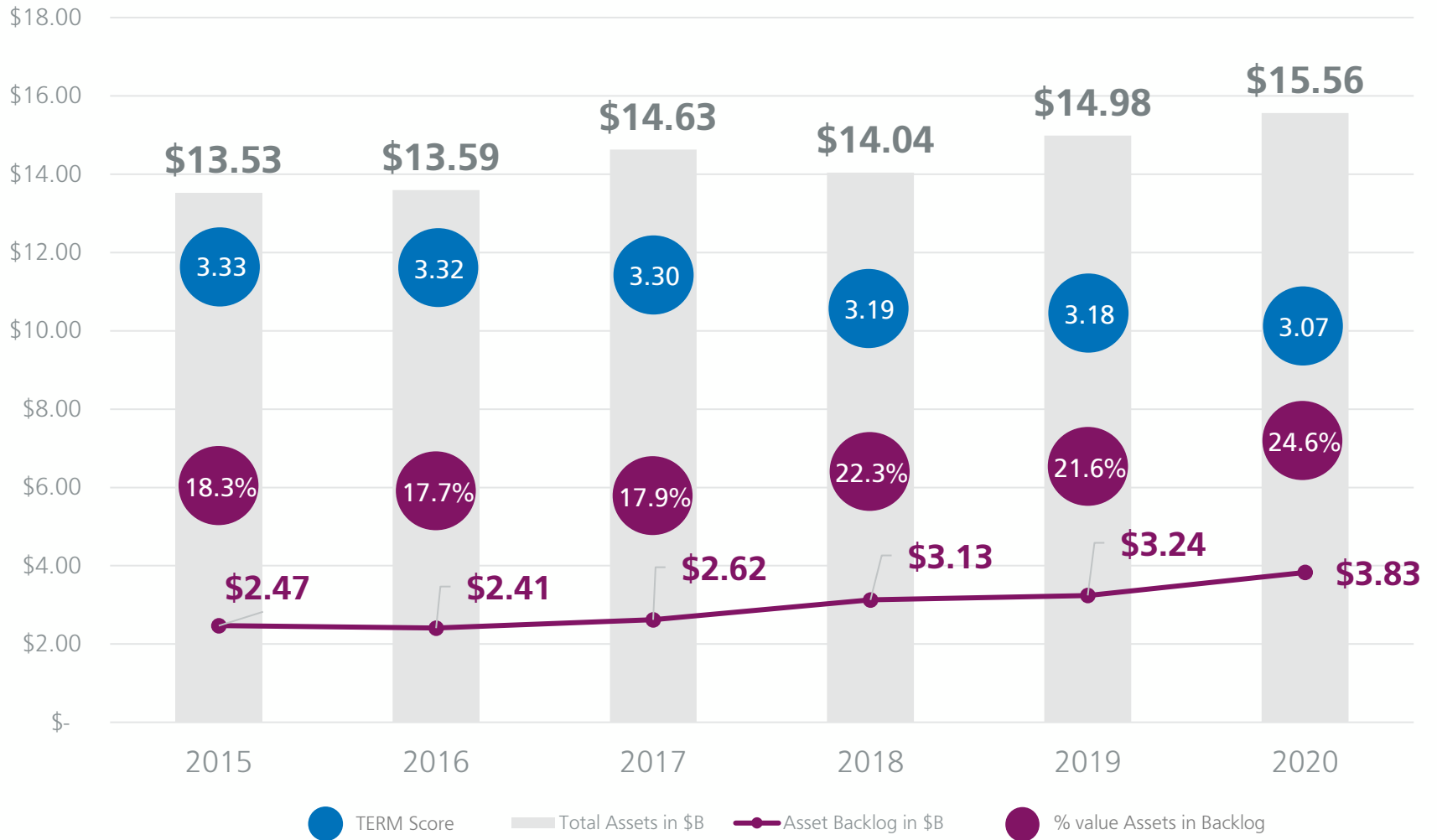


Reference: [2020 SFMTA State of Good Repair Report](#)

State of Good Repair



State of Good Repair Key Trends (in \$B)



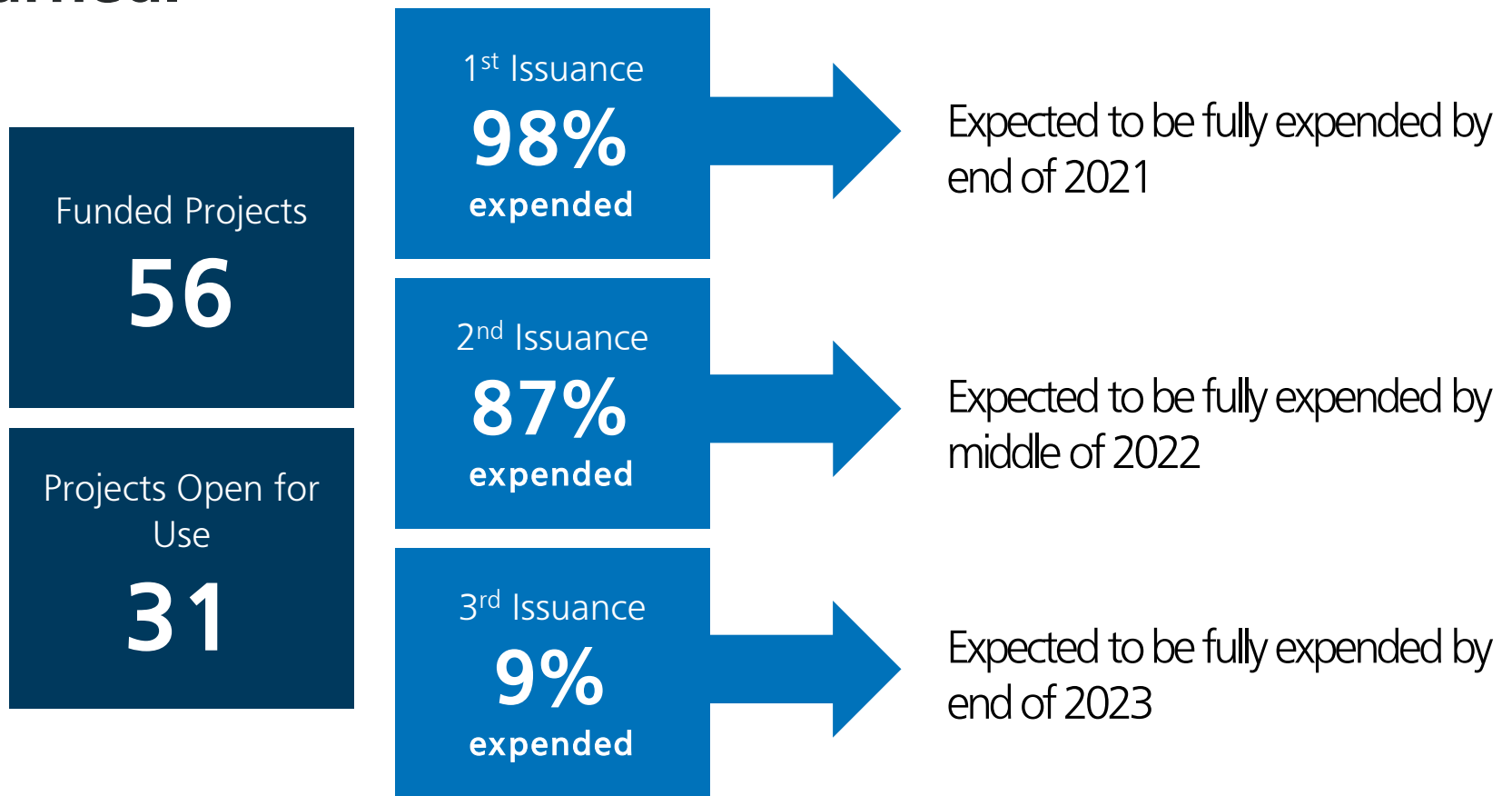
Reference: [2020 SFMTA State of Good Repair Report](#)



2014 Transportation and Road Improvement Bond



Performance and project delivery have been improving throughout the Bond based on lessons learned.





L Taraval

West of Sunset Blvd segment is nearing completion. Sunset Blvd to West Portal will issue Notice to Proceed this summer. Substantial completion scheduled for Fall 2023.

Improvements:

- Rail track overhead line replacement
- Water and sewer line replacement
- Surface repaving
- Curb ramp upgrades
- Concrete boarding islands and pedestrian bulbs
- Traffic signals
- New trees and landscaping





22 Fillmore (16th Street)

East of Potrero segment complete,
22 Bus now operating to Mission Bay.
Construction west of Potrero to begin in
early 2022.

Key Highlights:

- Transit Only Lanes
- Accessible Pedestrian Signals and Visible Crosswalks
- New Bus Shelters and Boarding Islands
- Bus Bulbs for Easier/Safer Boarding
- Bus Priority Traffic Signals
- New Trees and Streetscape Improvements



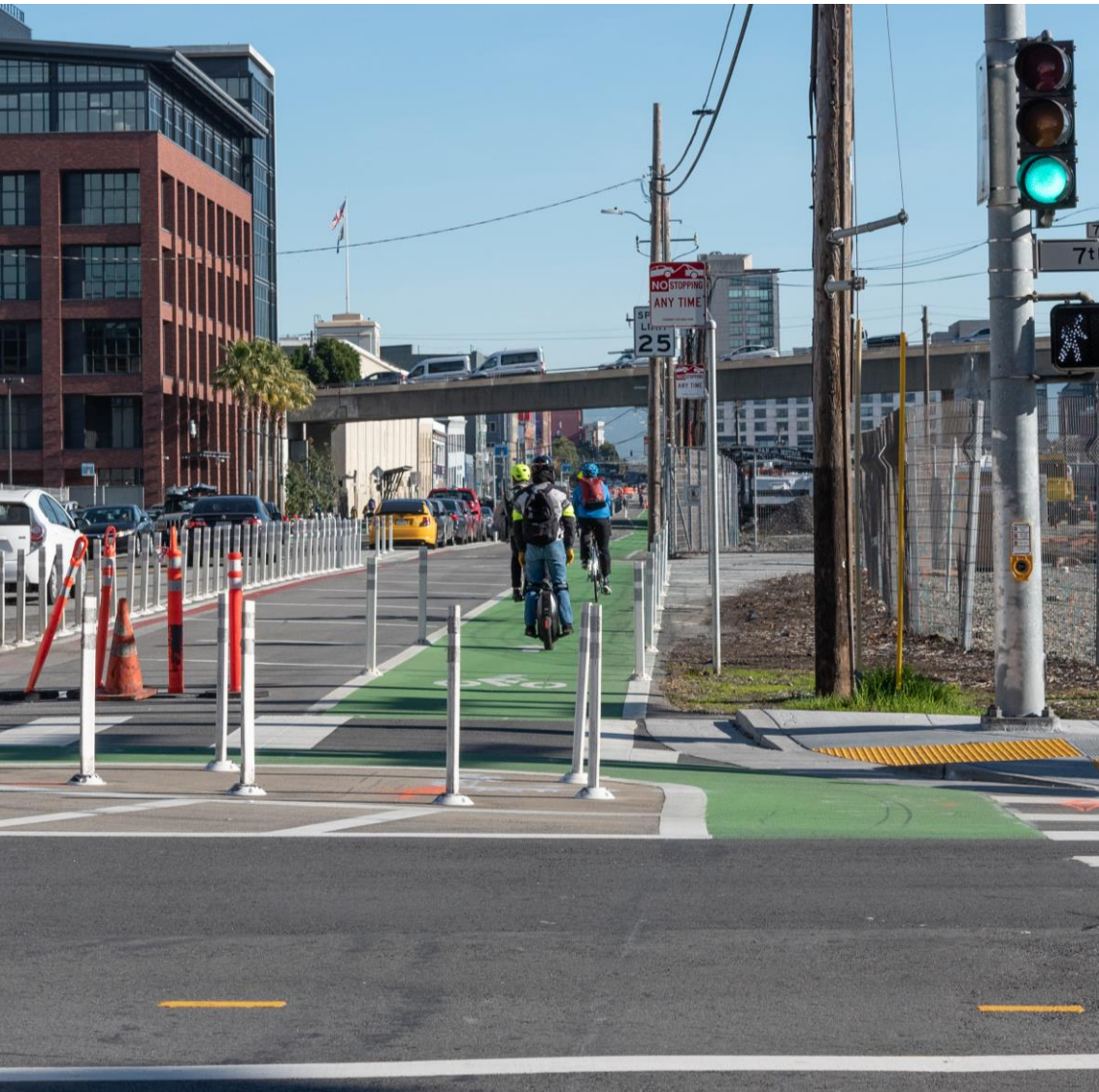


28 19th Avenue

Construction is split into four segments. Currently working on the first segment from Lincoln to Noriega: contractors currently focused on sewer and water utility work. The next segment, from Noriega to Taraval, is estimated to start late summer/early fall.

Key Highlights:

- Transit priority and pedestrian safety improvements
- New transit bulbs at 13 intersections
- New pedestrian bulbs at 19 intersections



7th & 8th St South of Folsom Streetscape

Bicycle and pedestrian improvements along 7th and 8th Streets between Harrison Street and Market Street:

- Aligned with the Eastern Neighborhoods Transportation Implementation Planning Study
- Includes a new concrete buffered bike lane, concrete boarding islands, sidewalk bulbs
- New striping and safe hit posts



Safer Streets

Pedestrian Countdown Signals (PCS) added to 15 High Injury Corridors. Installation of audible pedestrian signals at 12 intersections on Potrero Avenue between 17th Street and 25th Street.

- New or improved signals at more than 28 high-injury network intersections
- Curb bulbs at 19 high-injury network intersections
- Construction of Geary Boulevard Pedestrian Improvements
- Additional pedestrian safety improvements coordinated with Muni Forward



Through the 2014 GO Bond, we invested heavily in the reliability and the safety of the transportation system.

Now, we must invest in the core infrastructure to make sure it works, while continuing to make improvements to safety and reliability.



2022 Muni Reliability and Street Safety Improvement Bond

Improvement



Reliability



Safety





What does this GO Bond mean for you?



EQUITY

- Affordable travel options
- Improved safety and health in underserved neighborhoods by reducing carbon emissions, slowing vehicle speeds, and dramatically improving bicycle and pedestrian infrastructure
- Increased access to good local jobs with reduced travel times
- Enhanced public transit service in underserved neighborhoods



FAST AND CONVENIENT TRANSIT

- Faster, more convenient public transit connections to destinations across the city and to regional public transit
- Less waiting for the train or bus and fewer delays when you're on board
- A more comfortable public transit ride, with less crowding



MORE REPAIRS AND MAINTENANCE

- Safer intersections with more visible signals for people driving
- Easier street crossings with new curb ramps and pedestrian countdown signals
- More reliable transit service using infrastructure and systems that are in good repair



IMPROVING SAFETY AND ACCESS

- Intersection improvements that increase accessibility for people with disabilities
- Improved loading access for business and residences
- Fewer collisions, fatalities, and injuries on our streets



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.



Make the Transportation System Work Better Muni Network Improvements

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

\$32M

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.



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

\$32M

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.



Improve Street Safety and Traffic Flow Traffic Signal and Street Crossing Improvements in Equity Neighborhoods

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

\$32M

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.



Improve Street Safety and Traffic Flow On-Street Improvements

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

\$32M

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.



Improve Street Safety and Traffic Flow Speed Management Program

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

\$22M

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.

2022 Muni Reliability and Street Safety Improvement Bond



COMPONENT	BUDGET
Make the Transportation System Work Better	
<i>Speed up Muni repairs and keep public transit moving by repairing, upgrading and maintaining aging facilities and equipment</i>	\$250 M
<i>Enable faster, more reliable and more frequent Muni service by improving transit infrastructure</i>	\$32 M
<i>Increase subway capacity, reduce delays and deliver dependable, high-frequency transit by modernizing the Muni train control system</i>	\$32 M
Improve Street Safety and Traffic Flow	
<i>Improve safety and visibility at intersections</i>	\$32 M
<i>Strengthen walking, bicycling, and Muni connections along major corridors by redesigning streets and sidewalks</i>	\$32 M
<i>Slow speeds and reduce crashes by implementing proven traffic calming and speed reduction tools</i>	\$22 M
TOTAL	\$400 M

Thank You.

San Francisco

TRANSPORTATION 2050

