



**SFMTA**

The background features a stylized, blue-toned illustration of San Francisco. At the top, a silhouette of the city skyline is visible against a light blue sky. Below this, rolling hills are depicted. In the middle ground, a variety of transportation modes are shown: a bus, a car, a person walking, a person on a bicycle, and a person pushing a stroller. Buildings of different heights and styles are scattered throughout. Specific labels like 'MARKET', 'STORE', and 'BUS STOP' are integrated into the scene. At the bottom, a light rail train is shown with a group of diverse people walking alongside it. The overall aesthetic is clean and modern, using a monochromatic blue palette.

# Transportation: San Francisco

City and County of San Francisco 10-Year Capital Plan Update  
SFMTA 5-Year Capital Improvement Program

**SFMTA Bond Oversight Committee**

March 3, 2020



SFMTA

Transportation:  
System **Needs** Update  
System **Management** Update  
System **Improvement** Update  
System **Financial** Update



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# Transportation: System **Needs** Update

- SFMTA 20-Year Capital Plan Update
- CCSF 10-Year Capital Plan Update

## SFMTA 20-Year Capital Plan

The San Francisco Municipal Transportation Agency's (SFMTA) **20-year Capital Plan** is a need-based assessment of the SFMTA's anticipated capital needs for the upcoming 20 years.

- It is a **financially unconstrained** plan and includes capital needs for which funding has not yet been committed
- The purpose of the Capital Plan is to identify all of the **potential capital investment needs to achieve the City's transportation goals**

# SFMTA 20-Year Capital Plan



## 2019 SFMTA 20-Year Capital Needs

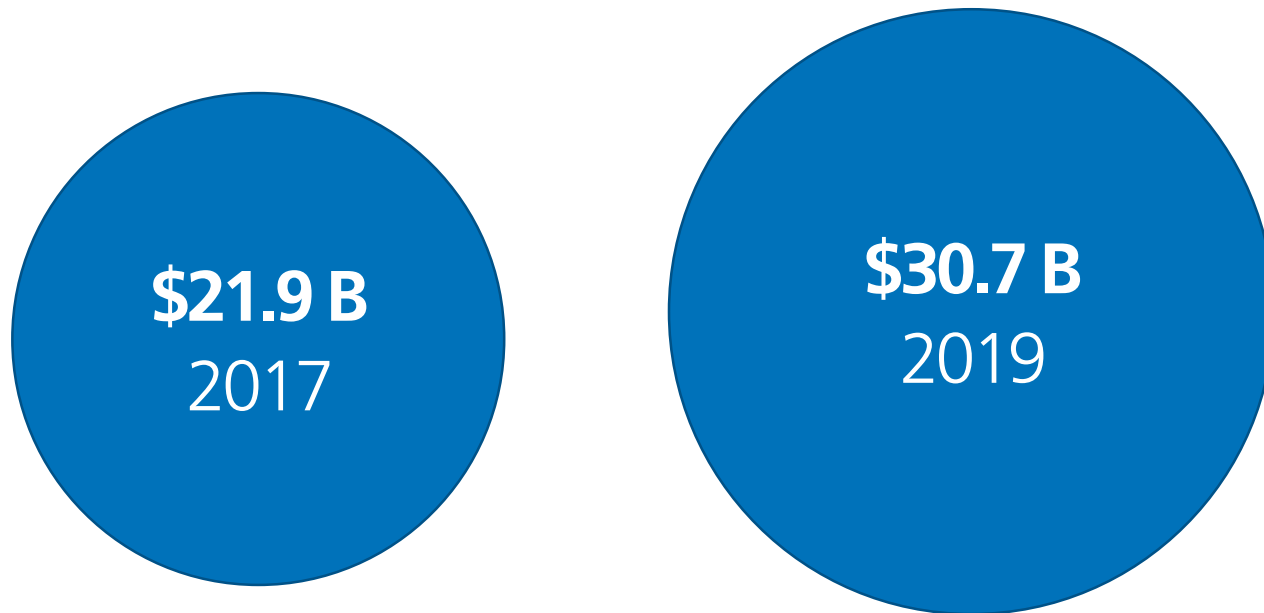
An overview of the agency's anticipated capital needs from Fiscal Year 2020 – Fiscal Year 2040.

SFMTA Board of Directors Approval: \_\_\_\_\_  
September 2019



## SFMTA 20-Year Capital Plan

SFMTA 20-Year Capital Plan needs for the transportation system **grew by \$8.9 billion between 2017 and 2019.**



## SFMTA 20-Year Capital Plan

Why the increase from 2017 to 2019?

Vision Zero

Electric Bus Fleet Transition

Updating Costs based on Actuals

State of Good Repair

Next Generation of Muni Forward

- Increased investment needs in *Streets* to achieve Vision Zero safety goals.
- Increased investment in *Fleet and Facility* to support transition to an all-battery-electric fleet.
- Revised cost estimates in the *Traffic Signals & Signs* to better account for the total cost of the work.
- Investments in the *Streets and Facility Program* needed to better regulate emerging mobility.
- Increased investment needs in *Transit Fixed Guideway* to maintain the system in a state of good repair.
- Increased investment needs in *Transit Optimization & Expansion* include the next step in the Muni Forward program, building on current efforts to improve travel time and reliability.

## SFMTA 20-Year Capital Plan

### 2019 Capital Plan Update Details:

PROGRAM	2017 Total Capital Needs (constant 2017 dollars, rounded)	Percent of 2017 Capital Needs	2019 Total Capital Needs (constant 2019 dollars, rounded)	Percent of 2019 Capital Needs	Percent Change from 2017
Communications & Information Technology	\$237 M	1.1 %	\$218 M	0.7 %	<b>-8.1 %</b>
Facility	\$3,490 M	15.9 %	\$4,599 M	14.9 %	<b>31.8 %</b>
Fleet	\$4,540 M	20.7 %	\$5,419 M	17.6 %	<b>19.4 %</b>
Parking	\$671 M	3.1 %	\$681 M	2.2 %	<b>1.4 %</b>
Security	\$545 M	2.5 %	\$557 M	1.8 %	<b>2.2 %</b>
Streets	\$2,456 M	11.2 %	\$4,936 M	16.0 %	<b>101.0 %</b>
Taxi	\$65 M	0.3 %	\$65 M	0.2 %	<b>0.1 %</b>
Traffic Signals & Signs	\$576 M	2.6 %	\$1,488 M	4.8 %	<b>158.3 %</b>
Transit Fixed Guideway	\$1,310 M	6.0 %	\$1,755 M	5.7 %	<b>34.0 %</b>
Transit Optimization & Expansion	\$8,046 M	36.7 %	\$11,068 M	36.0 %	<b>37.6 %</b>
<b>Total (all programs)</b>	<b>\$21,937 M</b>		<b>\$30,784 M</b>		



## SFMTA 20-Year Capital Plan

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## CCSF-10 Year Capital Plan Update

With the update of the SFMTA 20-Year Capital Plan and new 5-Year Capital Improvement Program revenue estimates the **10-Year Capital Plan requires update**. Revenues are revised down and transportation system needs are revised up, **deferrals have increased from \$4.6 billion to \$10.9 billion**.

YEARLY SPENDING PLAN (\$ Millions)							PLAN TOTAL	DEFERRED
	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25-29		
<b>Original</b>	667.3	751.2	528.6	436.1	626.2	1,999.2	<b>5,008.7</b>	<b>4,549.7</b>
<b>Updated</b>	470.7	523.1	403.7	496.8	491.2	2,197.0	<b>4,582.5</b>	<b>10,383.4</b>
<b>Change</b>	<b>(196.6)</b>	<b>(228.1)</b>	<b>(124.9)</b>	<b>60.7</b>	<b>(135.0)</b>	<b>197.8</b>	<b>(462.6)</b>	<b>5,833.7</b>
<b>SGR</b>	227.8	246.9	211.0	274.6	244.2	1,242.1		
<b>Non-SGR</b>	243.0	276.2	192.7	222.3	247.0	1,246.7		



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# Transportation: System **Management** Update

- Asset Management Program
- 10-Year Asset Management Strategy
- Transit Asset Management Plan
- State of Good Repair Report

## SFMTA Asset Management Program

A key objective of the SFMTA's Asset Management Program to *shift the business philosophy*, advancing the SFMTA from a reactive to preventative operational environment.



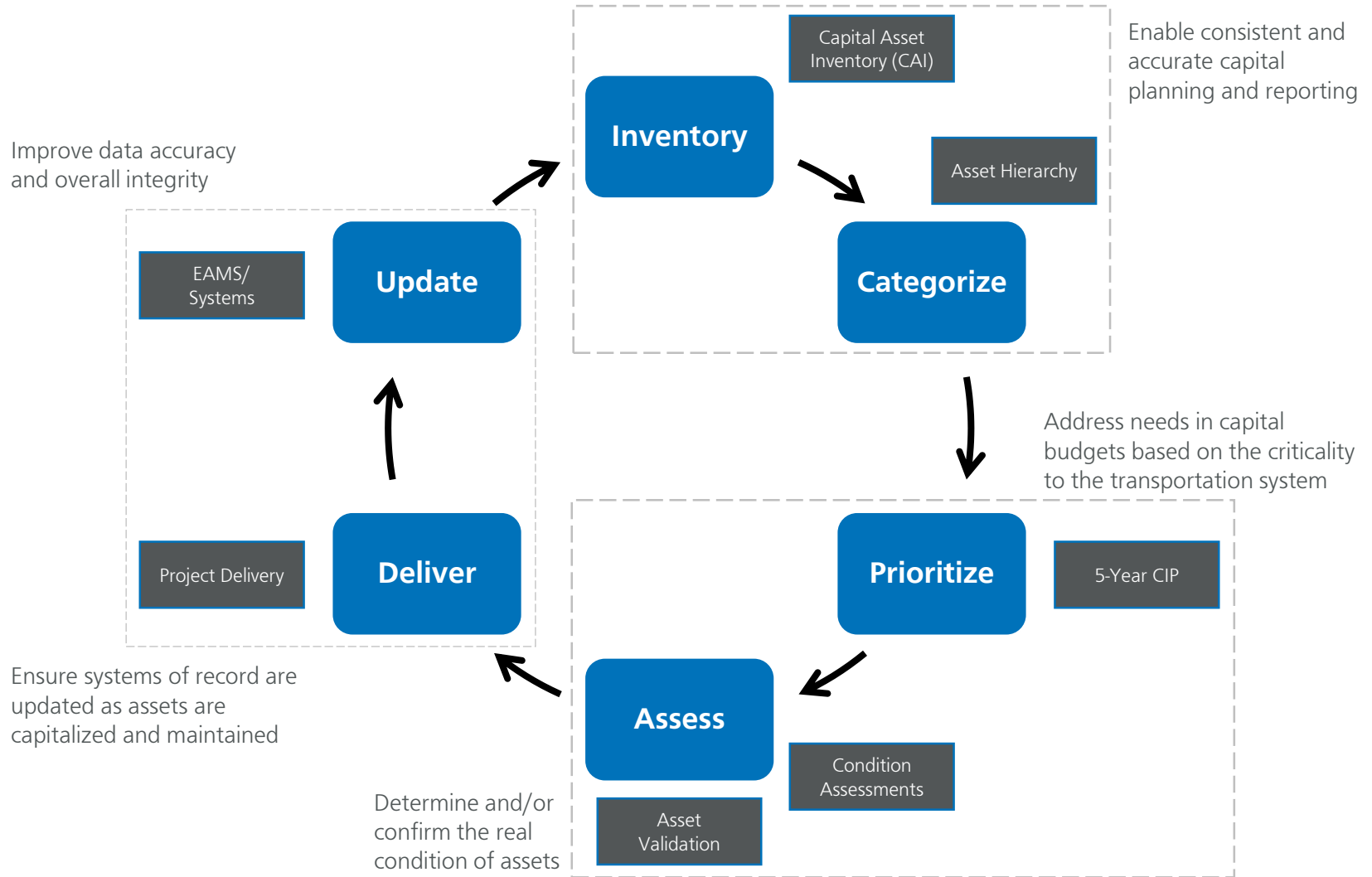
## SFMTA Asset Management Program

Program Objective:

**Asset Management connects information** about the San Francisco Municipal Transportation Agency's assets to **decision making processes** in order to maximize the performance, reliability and safety of the transportation system.

The result, excellent transportation choices.

# 10-Year Asset Management Strategy



## Transit Asset Management Plan – 49 CFR 625.25



### Element/Requirement

**Asset Inventory**

**Asset Condition Assessment**

**Analytical Process + Decision Support Tool**

**Investment Prioritization**

(Ranked List of programs and projects)

**Asset Management & State of Good  
Repair Policy**

**Implementation Strategy**

(How to implement the TAM Plan)

**Key Activities**

(Actions over 4 years)

**Resources**

(Required resources for implementation)

**Monitoring & Evaluation Strategy**

## State of Good Repair Report

The SFMTA has been producing an **annual State of Good Repair Report since 2015.**

- Provides an overview of the transportation system's rehabilitation and replacement needs and invest impacts
- Outlines the state of the practice of transportation asset management
- The 2018 report was completed in June 2019
- The 2019 report is in development, and is expected to be complete in March 2020

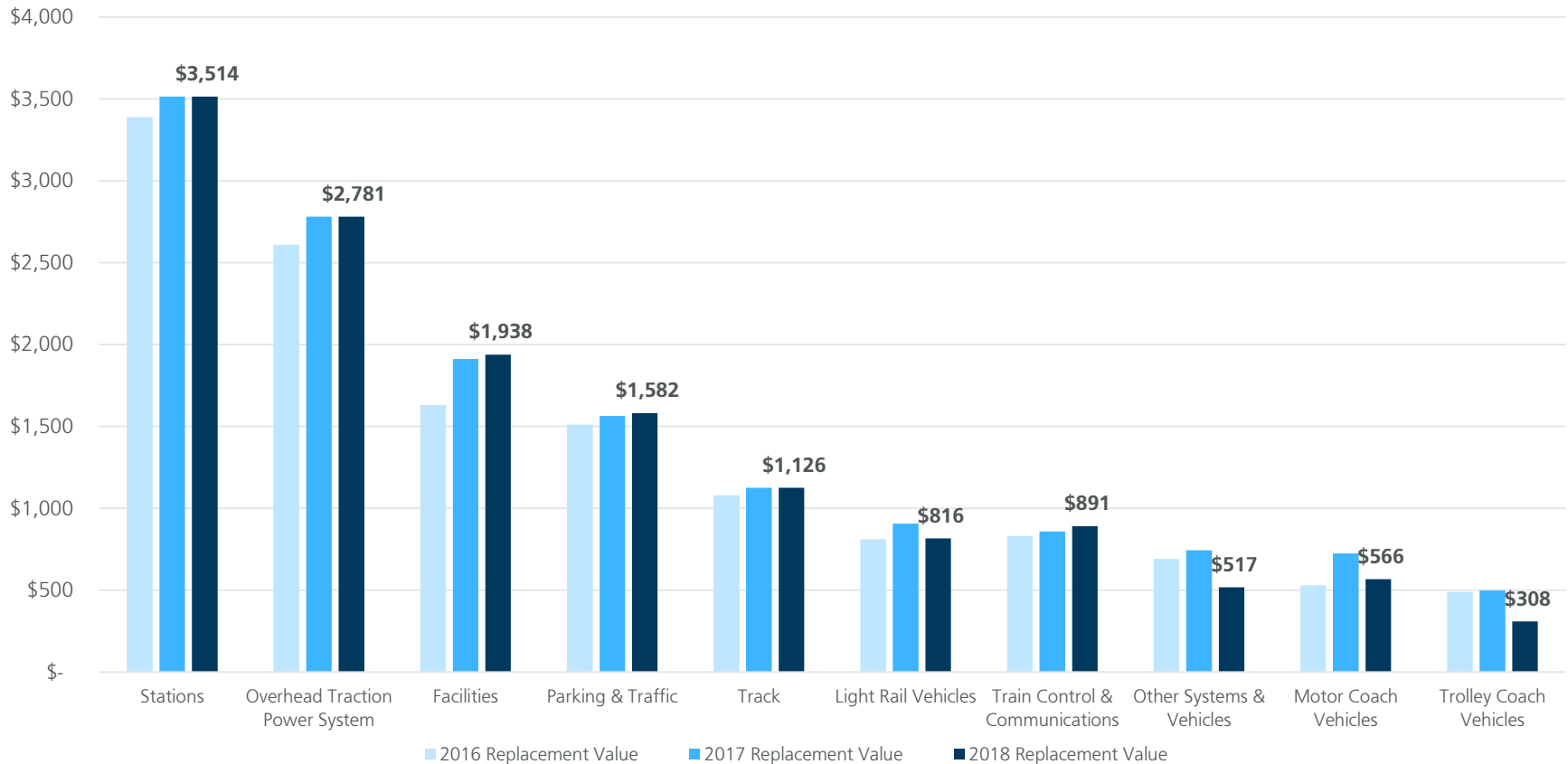
<https://www.sfmta.com/asset-management-program>





## State of Good Repair Report – Asset Total Replacement Value (2018)

The total replacement value of the SFMTA's assets in 2018 is **\$14.04 billion**, broken up into the following asset classes. In FY 2018, fleet asset data was updated, reflecting the contract and actual cost of the new Muni Fleet. Preliminary data from the 2019 analysis reflects changes due to inflation adjustments and fleet procurement.



## State of Good Repair Report – Asset Reporting Classification Matrix

	Asset Class
Transit Service Critical	<ol style="list-style-type: none"> <li>1. Light Rail Vehicles</li> <li>2. Motor Coach Vehicles</li> <li>3. Overhead Catenary System</li> <li>4. Track</li> <li>5. Train Control &amp; Communications</li> <li>6. Trolley Coach Vehicles</li> <li>7. Other Systems/Vehicles (TSC)</li> </ol>
Other SGR	<ol style="list-style-type: none"> <li>8. Facilities</li> <li>9. Parking &amp; Traffic</li> <li>10. Stations</li> <li>11. Other Systems/Vehicles (Other)</li> </ol>

The SFMTA categorizes asset classes into **Transit Service Critical (TSC)** and **Other SGR**.

**Transit Service Critical** is defined as *assets and systems that are essential to ensuring the safe and reliable functioning of the transit system, such as maintaining or replacing overhead wires, rail track, or transit vehicles.*

**Other SGR** signifies investments that help to *make the transportation network more efficient, and enjoyable for riders, along with maintenance of non-transit/street related assets such as pedestrian, bicycle, enforcement and administration.*

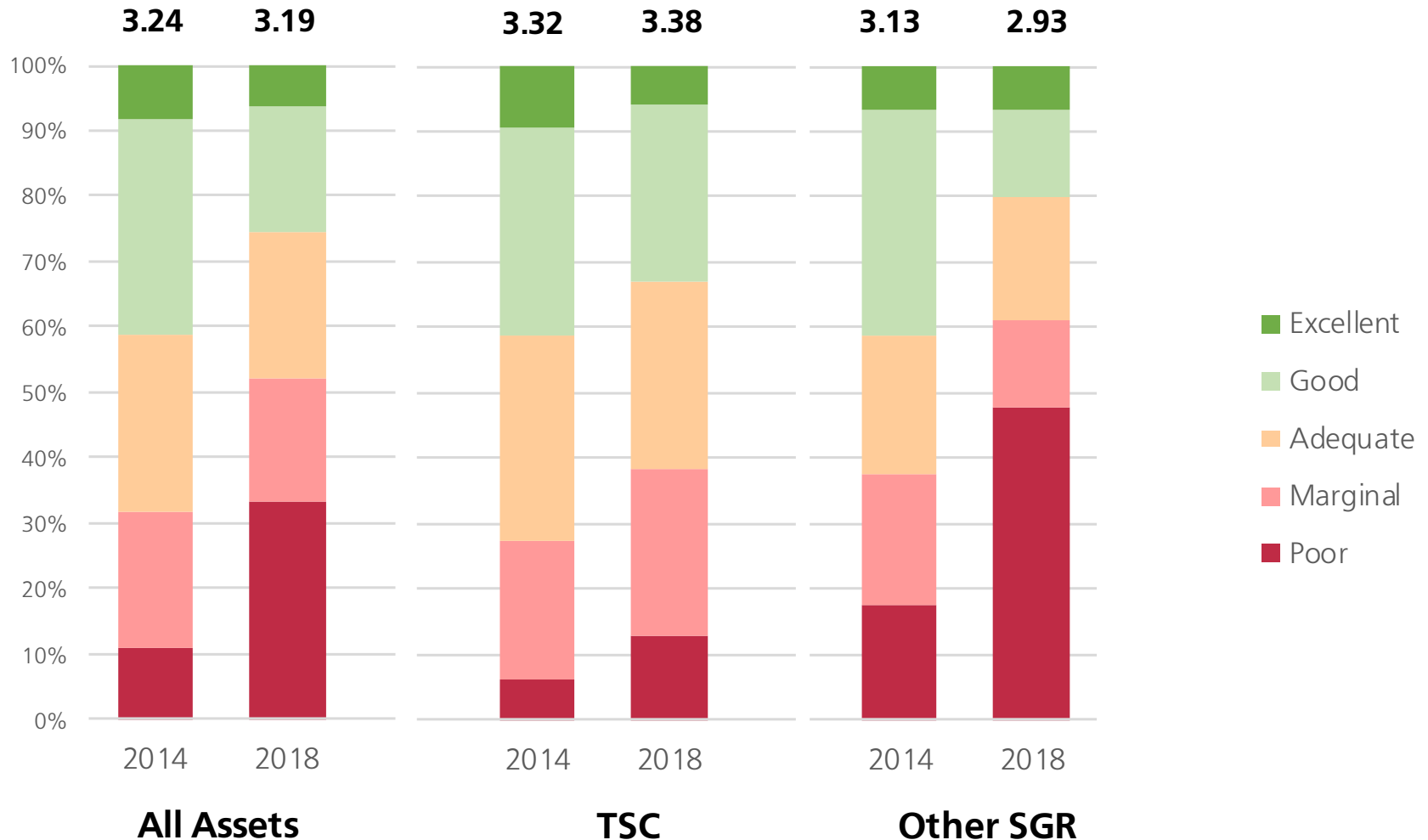
## State of Good Repair Report – TERM Modeling

**Transit Economics Requirement Model (TERM) Lite** is a modeling tool developed by the Federal Transit Administration (FTA) used to assess the current physical condition and future investment needs of the nation's transit assets/operators.

- The TERM model produces a **condition score** for each asset in the capital asset inventory based on the **age and useful life** of the asset.
- State of good repair analysis uses **weighted condition scores** based on the total replacement cost for asset condition scores.
- This creates a more **accurate representation of the state of good repair of transportation system assets** as it is more detrimental if a high-value asset has a low condition score than a low value asset.
- An asset is considered to be in a State of Good Repair if its score is 2.5 or higher.

## State of Good Repair Report – TERM Modeling

The average agency TERM Score in 2018 was 3.19. Overall transportation assets remain in a state of good repair.



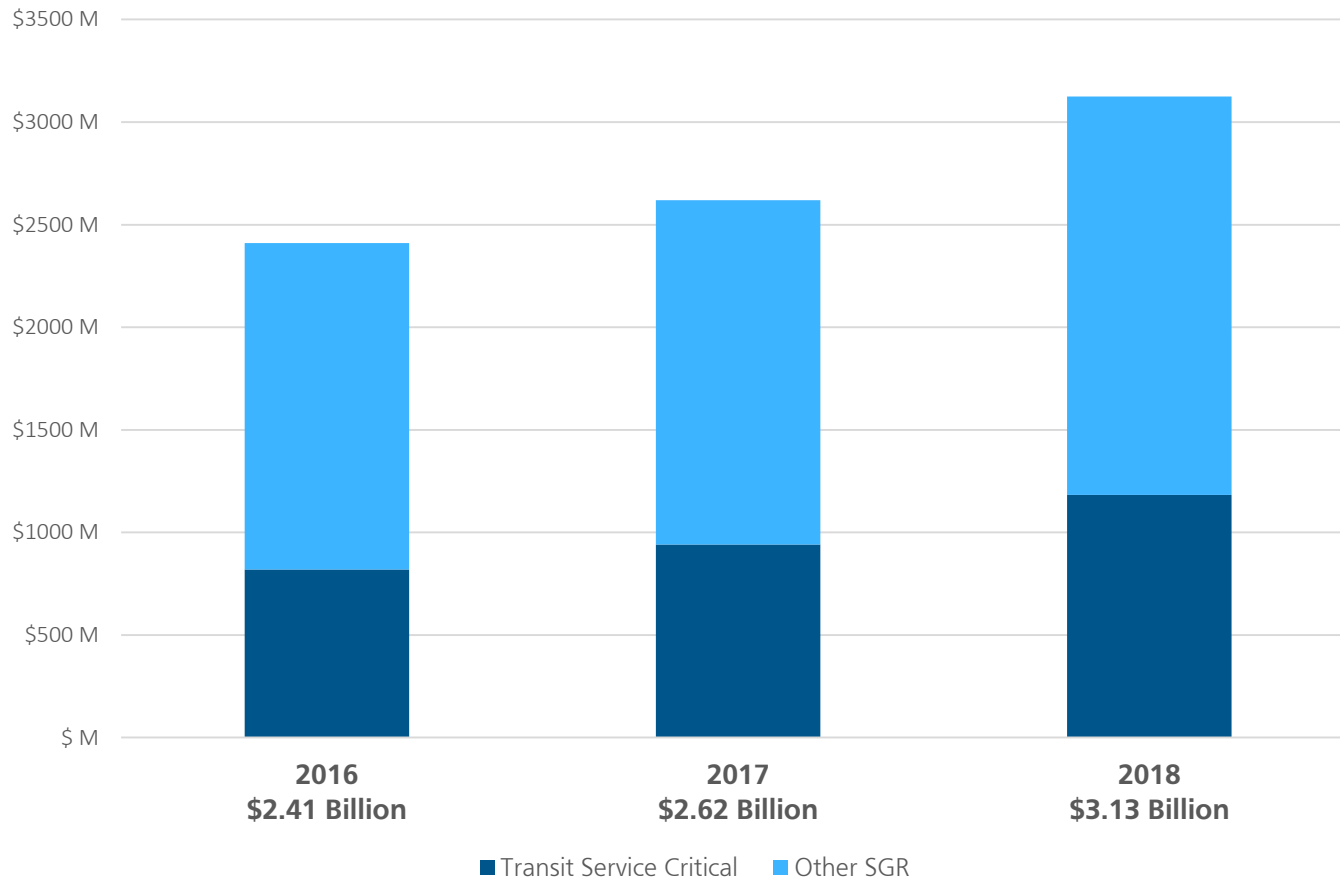
## State of Good Repair Report – Condition Score Trends

The average agency TERM Score in 2018 is 3.19. The replacement of the trolley coach fleet resulted in a significant increase in the TERM score in 2018. Other Systems & Vehicles and Traffic Signal Infrastructure were reduced in 2018 as data was updated in the Capital Asset Inventory. Condition assessments are planned for 2020.

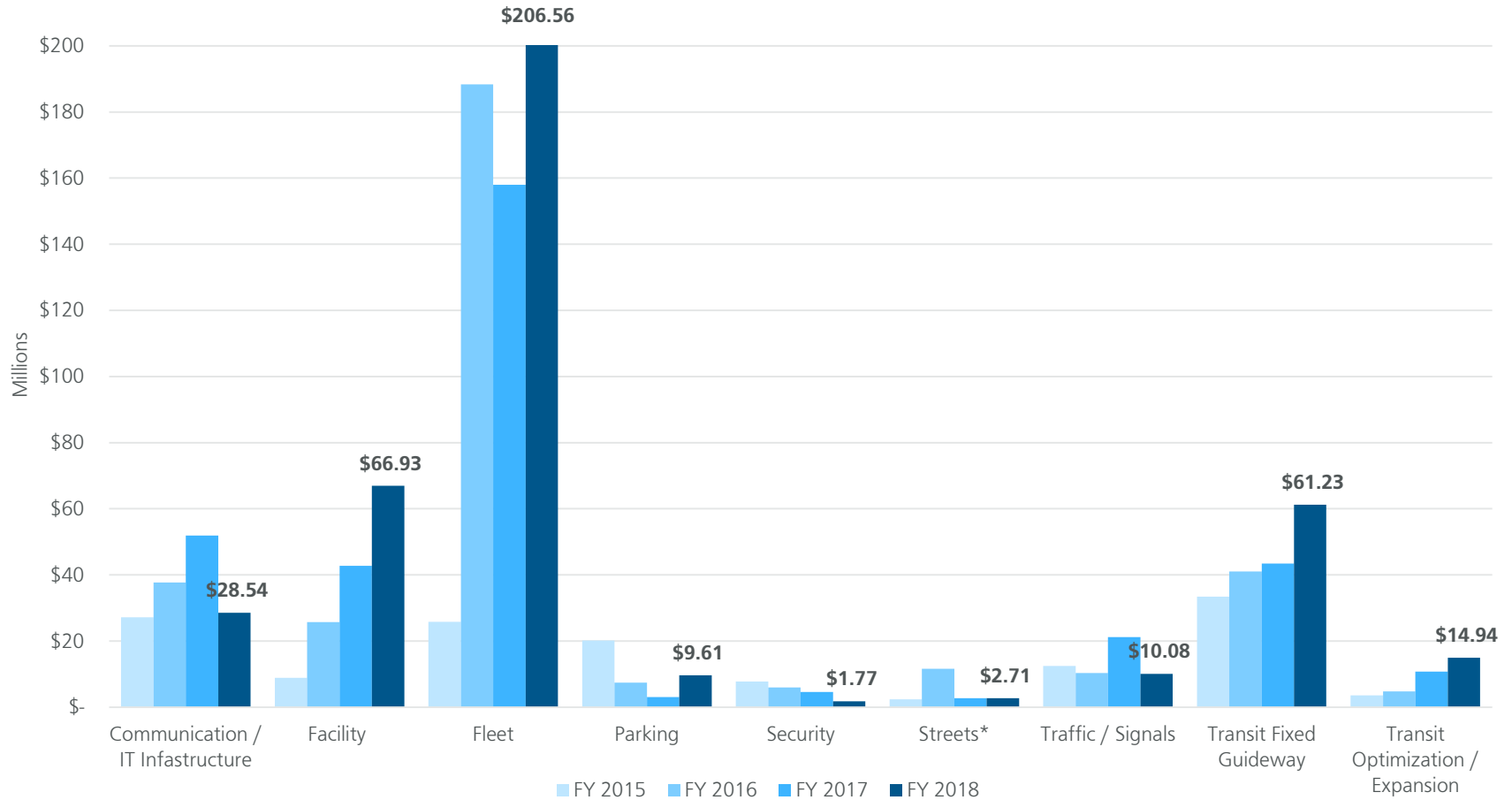
Asset Class	2014	2015	2016	2017	2018	2019
Facilities	3.4	3.2	3.2	3.3	3.3	2019 Data Pending
Light Rail Vehicles	3.1	3.8	3.8	3.7	3.8	
Motor Coach Vehicles	3.2	3.7	3.5	3.7	3.6	
Other Systems & Vehicles	3.2	3	3.1	3.1	2.6	
Overhead Traction Power System	3.7	3.7	3.7	3.6	3.5	
Parking & Traffic	2.8	2.8	3	2.9	2.4	
Stations	3.2	3.1	3.1	3.1	3	
Track	3.3	3.3	3.2	3.2	3.1	
Train Control & Communications	2.9	3.7	3.6	3.5	3.4	
Trolley Coach Vehicles	2.5	3.4	3.3	3.2	3.6	
<b>Total Condition Score</b>	<b>3.24</b>	<b>3.33</b>	<b>3.32</b>	<b>3.3</b>	<b>3.19</b>	

## State of Good Repair Report – Estimated Backlog

The transportation asset estimated **backlog grew to \$3.13 billion in 2018**. Parking and Traffic assets represent the largest asset class in backlog at \$950 million followed by Stations (\$473 million), Facilities (\$466 million) and Overhead (\$420 million).

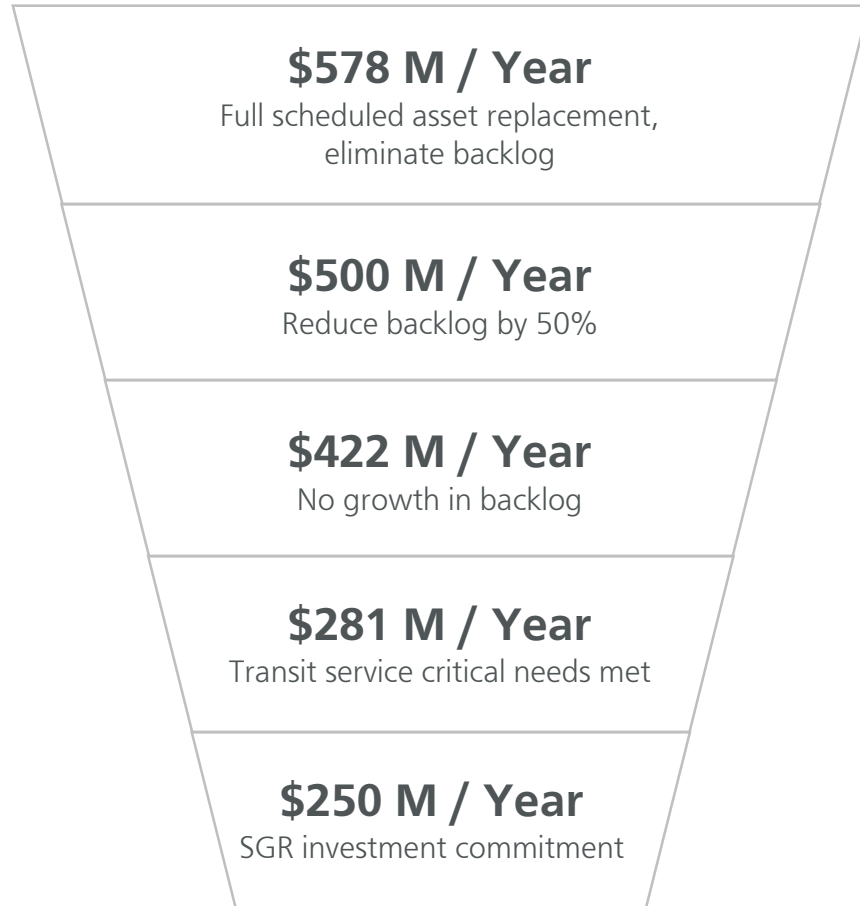


## State of Good Repair Report – Spending FY 2015 – FY 2018

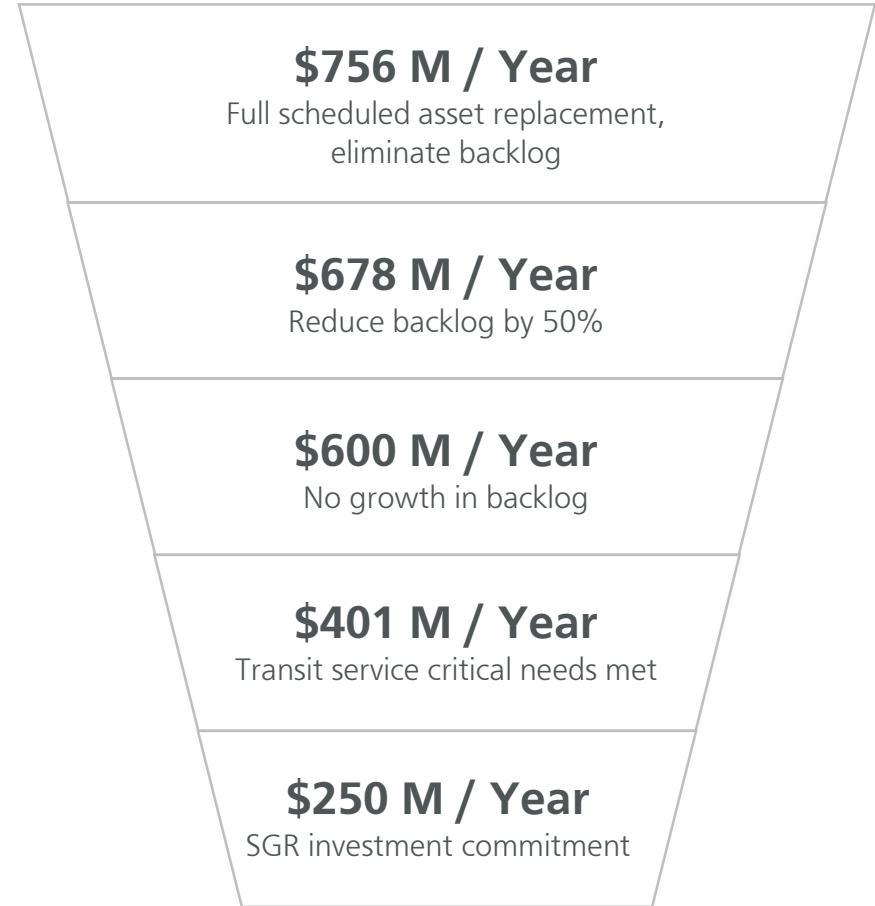


## State of Good Repair Report – Planned Future Needs

### Annual SGR Need (\$2018)



### Annual SGR Need (Escalated @ 3% per year)





## State of Good Repair Report – Next Steps

- In 2020, a **condition assessment of Traffic Signal Assets** will be completed, resulting in a new inventory, condition score and operational condition data.
- Additional condition assessments being initiated for Stations, Guideway, and Sustainable Streets assets.
- Integrate Asset Management data into the development of the **FY 2021 – 2025 Capital Improvement Program**.
- **Target investments** in the Capital Improvement Program that will deliver the most impact to the backlog and asset condition scores.
- Continue trend of **investing a minimum of \$250 million per year** in the State of Good Repair of the Transportation System.



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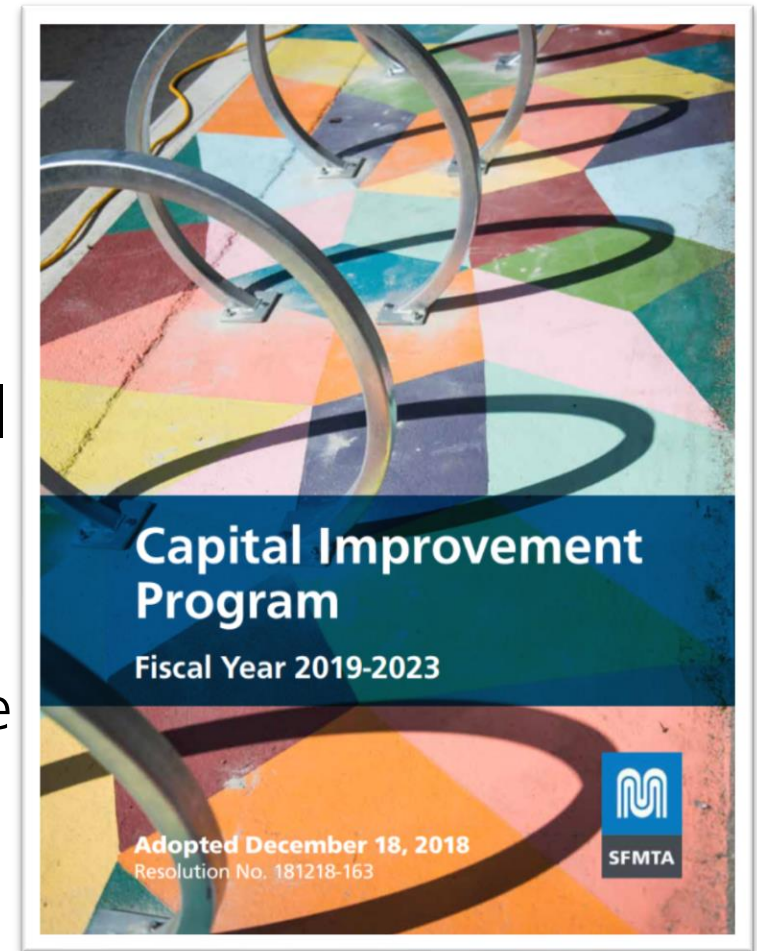
# Transportation: System **Improvement** Update

- 5-Year Capital Improvement Program
- Proposed FY 21 – 25 CIP

## SFMTA 5-Year Capital Improvement Program

The SFMTA 5-Year Capital Improvement Program is a **fiscally constrained 5-year program of capital improvement and operational projects.**

- *An implementation plan* for regional, citywide, and agency-wide strategies and policy goals
- *Maintains credibility* with external funding agencies (eg. MTC, FTA)



## SFMTA 5-Year Capital Improvement Program – Program Areas



### Fleet

Purchase and rehabilitate transit vehicles including motor coaches, trolley coaches, light rail vehicles and paratransit vans



### Signals

Plan, design, engineer and construct traffic signals and associated infrastructure to improve mobility and safety on San Francisco streets and decrease transit travel time



### Parking

Plan, design, rehabilitate and construct public parking facilities or street infrastructure related to public parking



### Taxi

Implement systems to optimize and support the taxi system in San Francisco to provide a better rider experience and promote low-emissions taxi vehicle use



### Comm & IT

Plan, design and implement technology infrastructure upgrades to improve the efficiency and efficacy of the SFMTA and provide a better experience for customers and Employees.



### Transit Optimization

Plan, design, engineer and construct infrastructure improvements to improve travel time and increase the capacity and reliability of the transit system



### Fixed Guideway

Plan, design, engineer and construct improvements to critical infrastructure including rail track, overhead wires, and train control technology



### Security

Plan, design and construct or implement systems to improve the security of the transit system



### Facilities

Acquire, develop and/or rehabilitate transit station areas and maintenance facilities used for transit, traffic, and parking operations.



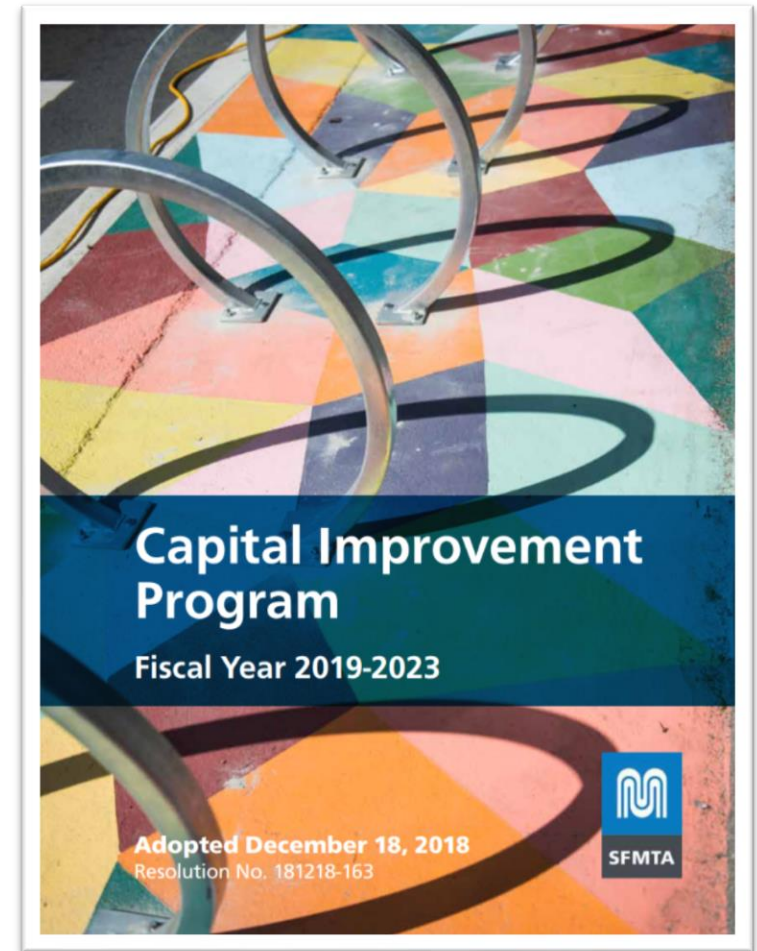
### Streets

Plan, design, engineer and construct improvements to street safety that promote walking, bicycling, and taking transit

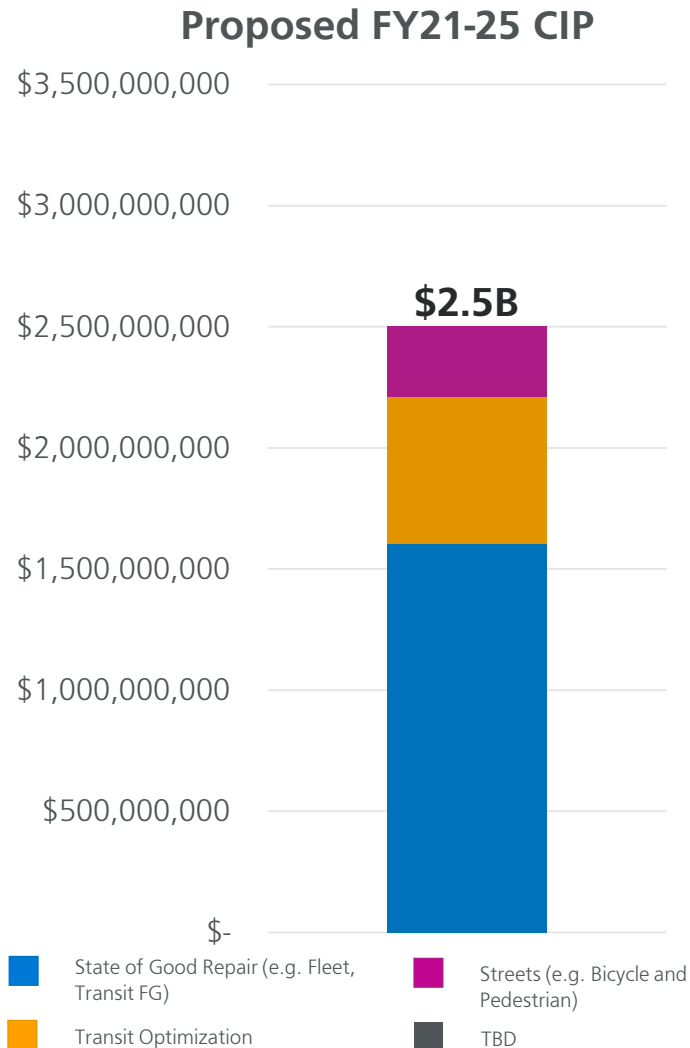
## SFMTA 5-Year Capital Improvement Program

### Major Themes

- Several large and significant capital projects
- Bolstered program reserves
- Projects established with seed funding – future funds needed for implementation
- Quick Build – Vision Zero and Muni Forward
- Ongoing and one-time revenues policy changes



## SFMTA 5-Year Capital Improvement Program – Proposed FY 2021-25 CIP



### 157 Projects

### \$2.5 Billion Investment

(down from \$3.4 Billion in FY 2017-21 CIP)

- FY 2021-25 CIP project prioritization in progress
- Several large projects:
  - Central Subway
  - LRV Replacement and Expansion Acceleration
  - Train Control System Upgrade
  - Better Market Street
  - Muni Forward
  - Potrero Modernization
- Reserves proposed within each capital program

## SFMTA 5-Year Capital Improvement Program – Revenue Assumptions and Options

### Revenue Assumptions



#### Competitive Grants

Conservatively included at 80% of the three-year average of awarded amounts to SFMTA.



#### Regional Measure 3

\$140M in Regional Measure 3 (RM3) is included starting in FY2020-21. RM3 Core Capacity is included at \$18 million starting in FY2020-21.



#### Proposition D

The Transportation Network Tax (Proposition D) is assumed at \$62 million from FY21-25 based on available data.



#### \$60M TIRCP

The Transit and Intercity Rail Capacity Program (TIRCP) cap and trade grant is assumed at \$60M in FY2024-25.



#### FTA Transit Capital Priorities

The Federal Transit Administration (FTA) Transit Capital Priorities (TCP) is based on the Core Capacity Challenge Grant Program (CCGP) estimate.

### Potential Revenues (excluded)



#### 2<sup>nd</sup> \$500M GO Bond

Scheduled to go on the ballot in November 2022. Not included in current revenue assumptions.



#### Proposition K

Potential re-authorization of the Proposition K sales tax is not included in current revenue assumptions.



#### Revenue Bonds

Significant capacity available but has impact on operating budget: debts service payments = ~\$7M annually per \$100M issued at current interest rates.



#### Regional Measure

One cent sales tax potentially scheduled to go on the ballot in November 2020. Expected to generate \$100.6 billion over 40 years. Not included in revenue assumptions.



## SFMTA 5-Year Capital Improvement Program – Proposed FY 2021-25 CIP

Program	Capital Budget					5-Year CIP
	FY21	FY22	FY23	FY24	FY25	Total (Current)
Facility	\$47,213,263	\$46,840,914	\$71,862,148	\$28,605,580	\$5,232,380	\$199,754,285
Fleet	\$156,442,559	\$156,890,576	\$173,717,887	\$216,730,682	\$266,474,279	\$969,555,983
Security	\$2,048,291	\$2,048,291	\$2,048,291	\$2,048,291	\$2,048,291	\$10,241,455
Signals	\$16,174,246	\$3,115,000	\$7,766,560	\$1,515,986	\$5,411,923	\$33,983,715
Streets	\$63,560,800	\$87,374,542	\$51,098,909	\$51,905,539	\$49,854,904	\$292,664,694
Taxi	\$330,000	\$1,192,734	\$430,000	\$942,734	\$230,000	\$3,125,468
Transit Fixed Guideway	\$55,490,381	\$65,578,218	\$67,568,868	\$83,789,306	\$76,152,711	\$348,579,484
Transit Optimization	\$217,520,809	\$90,940,815	\$141,954,073	\$71,546,123	\$92,089,841	\$609,077,090
Central Subway	\$0	\$0	\$0	\$0	\$0	\$0
Communications & IT	\$7,535,000	\$3,740,000	\$1,265,000	\$9,350,000	\$4,400,000	\$26,290,000
Parking	\$0	\$420,000	\$80,000	\$0	\$0	\$500,000
<b>Total SGR</b>	<b>\$273,193,639</b>	<b>\$245,863,489</b>	<b>\$290,583,859</b>	<b>\$276,238,350</b>	<b>\$279,355,331</b>	<b>\$1,362,292,381</b>
<b>Total</b>	<b>\$566,315,349</b>	<b>\$458,141,090</b>	<b>\$517,791,736</b>	<b>\$466,434,241</b>	<b>\$501,894,329</b>	<b>\$2,510,576,745</b>



## SFMTA 5-Year Capital Improvement Program – What are we delivering?

- **Muni Forward Quick Build Program**
- **Vision Zero Quick Build Program**
- **Major Streetscape Projects** – Folsom Howard Phase 1, 6th Street, Taylor Street, Hyde Street
- **LRV Replacement & Expansion**
- **Electric Bus Procurement**
- **Automatic Train Control System (ATCS)**
- **Better Market Street**
- **Muni Forward** – M-Oceanview TPP; K-Ingleside TPP; J-Church TPP; L Taraval, 22 Fillmore: 16th St
- **Accessible Pedestrian Signals**



## SFMTA 5-Year Capital Improvement Program – What are we delivering?

- Potrero Yard Modernization Project
- Presidio Facility Reconstruction
- Folsom-Howard Bids 2/3
- **Muni Forward** – N-Judah TPP, Embarcadero Pocket Track, 14 Mission TPP
- **Subway Mechanical Systems SGR Program**
- **Fire Life Safety SGR Program**
- **New Flyer Mid-Life Overhauls**



## Transportation Funding Efforts & Opportunities



### 2014 Proposition A

General Obligation Bond  
Passed – 71.9% yes  
\$500 million/one-time

### 2014 Proposition B

General Fund Population Baseline  
Passed – 61.4% yes  
\$23 million/annually (est. at time)

### Vehicle License Fee

Increase by 2% - Not Pursued  
Estimate: \$73 million/annually



### 2016 Proposition J/K

3/4 cent Sales Tax  
Prop J Dedication: Passed – 67.2% yes  
Prop K Tax: Failed - 65.3% no  
\$101.6 million/annually

### 2018 Proposition D

Ride Hailing Tax  
Passed – 67.7% yes  
\$15 million Transit/annually  
\$15 million Vision Zero/annually

### General Obligation Bond

\$500 million/one time (June 2022)

### + 1/4 Cent Sales Tax

\$51 million/annually (Estimated)

### Congestion Pricing

\$80 million/annually (Estimated)

### Community Benefit District

Varies Depending on District

## Other opportunities:

### Proposition K Sales Tax Reauthorization

\$100 million/annually (Post 2034)  
Voter approval of a new 30-year expenditure plan  
for the existing Proposition K 1/2 Transportation Sales Tax

### Federal and State Grants

FTA Capital Investment Grant Program: \$200 million/one-time  
State Transit and Intercity Rail Capital Program: \$120 million/one-time



Thank you.



**SFMTA**