

# Massachusetts Bay Transportation Authority FY23-27 Capital Investment Plan (CIP)

Proposed - March 2022



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# Glossary of Acronyms

A&F - Executive Office for Administration and Finance

ACE - Agile Carrier Ethernet

ADA - Americans with Disabilities Act of 1990

AFC - Automated Fare Collection

APC - Automated Passenger Counters

APS - Adaptive Power System

ATC - Automated Train Control

BCIL - Boston Center for Independent Living

BEB - Battery Electric Bus

BET - Boston Engine Terminal

BIL - Bipartisan Infrastructure Law

BLITS - Bus Location Instant Tracking Solution

BTC - Blind Trailer Coach

CIP - Capital Investment Plan

CMF - Capital Maintenance Fund

CNG - Compressed Natural Gas

CRMF - Commuter Rail Maintenance Facility

CTC - Control Trailer Coach

CWR - Continuously Welded Rail

DMA - Dual Mode Articulated

DPU - Distributed Power Unit

DTX - Downtown Crossing Station

E&M - Engineering and Maintenance

EEH - Enhanced Electric Hybrid

ESS - Electronic Signage System

ETB - Electric Trolleybus

FHWA - Federal Highway Administration

FRP - Fiber Reinforced Polymer

FTA - Federal Transit Administration

GATRA - Greater Attleboro Taunton Regional Transit Authority

GLTS - Green Line Tracking System

HVAC - Heating, Ventilation, and Air Conditioning

IT - Information Technology

LRV - Light Rail Vehicle

MassDOT - Massachusetts Department of Transportation

MOW - Maintenance of Way

MPO - Metropolitan Planning Organization

NEC - Northeast Corridor

NNEPRA - Northern New England Passenger Rail Authority

NTD - National Transit Database

OCC - Operations Control Center

OCS - Overhead Contact System

OHS - Occupational Health and Safety

PA - Public Announcement

PATI - Plan for Accessible Infrastructure  
PCB - Polychlorinated Biphenyl  
PCC - Presidents' Conference Committee  
PLC - Programmable Logic Controller  
PM/CM - Project Management/Construction Management  
PPE - Personal Protective Equipment  
PRIIA - Passenger Rail Investment and Improvement Act of 2008  
PSAC - Project Selection Advisory Council  
PTC - Positive Train Control  
PTIS - Passenger Train Information System  
PVC - Polyvinyl Chloride  
RCM - Reliability Centered Maintenance  
REP - Rail Enhancement Program  
RFID - Radio Frequency Identification Detection  
RGS - Rigid Galvanized Steel  
RIDOT - Rhode Island Department of Transportation  
ROW - Right-of-Way  
RRIF - Railroad Rehabilitation and Improvement Financing  
RTAG - Riders' Transportation Access Group  
S&I - Service and Inspection  
SCADA - Supervisory Control and Data Acquisition  
SGR - State of Good Repair

SMS - Safety Management System  
SONET - Synchronous Optical Network  
STIP - State Transportation Improvement Program  
SWAN - Security Wide Area Network  
TAMP - Transit Asset Management Plan  
TIFIA - Transportation Infrastructure Finance and Innovation Act  
TIP - Transportation Improvement Program  
TPSS - Traction Power Substation  
VMF - Vehicle Maintenance Facility  
WILD - Wheel Impact Load Detector

# Nondiscrimination Statement

## Federal Title VI Rights and Protections

The Massachusetts Bay Transportation Authority (MBTA) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, the Federal Transit Administration, or both prohibit discrimination on the basis of age, sex, and disability. These protected categories are contemplated within the MBTA Title VI Program consistent with federal interpretation and administration. Additionally, the MBTA provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with US Department of Transportation policy and guidance on federal Executive Order 13166.

## State Nondiscrimination Protections

The MBTA also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 §§ 92a, 98, 98a, prohibiting making any distinction, discrimination, or restriction in admission to or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the MBTA complies with the Governor's Executive Order 526, section 4 requiring all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

## ADA/504 Notice of Nondiscrimination

The MBTA does not discriminate on the basis of disability in admission to its programs, services, or activities; in access to them; in treatment of individuals with disabilities; or in any aspect of their operations. The MBTA also does not discriminate on the basis of disability in its hiring or employment practices. This notice is provided as required by Title II of the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973.

## Contact Us

### Request Information

To request additional information regarding Title VI and related federal and state nondiscrimination obligations, please contact:

MBTA Office of Diversity and Civil Rights  
Title VI Unit  
10 Park Plaza, Suite 3800  
Boston, MA 02116  
Phone: 857-368-8580  
Fax: 617-222-3263  
TTY: 711  
Email: [MBTACivilRights@mbta.com](mailto:MBTACivilRights@mbta.com)

### Language Services

The MBTA offers various services (such as translation assistance and interpretation) to customers in a range of languages.

If this information is needed in another language, please contact the MBTA Title VI Unit at 857-368-8580.

[Learn more about our language services](#)

### File a Discrimination Complaint

If your civil rights have been violated, you can file a complaint with the MBTA Office of Diversity and Civil Rights.

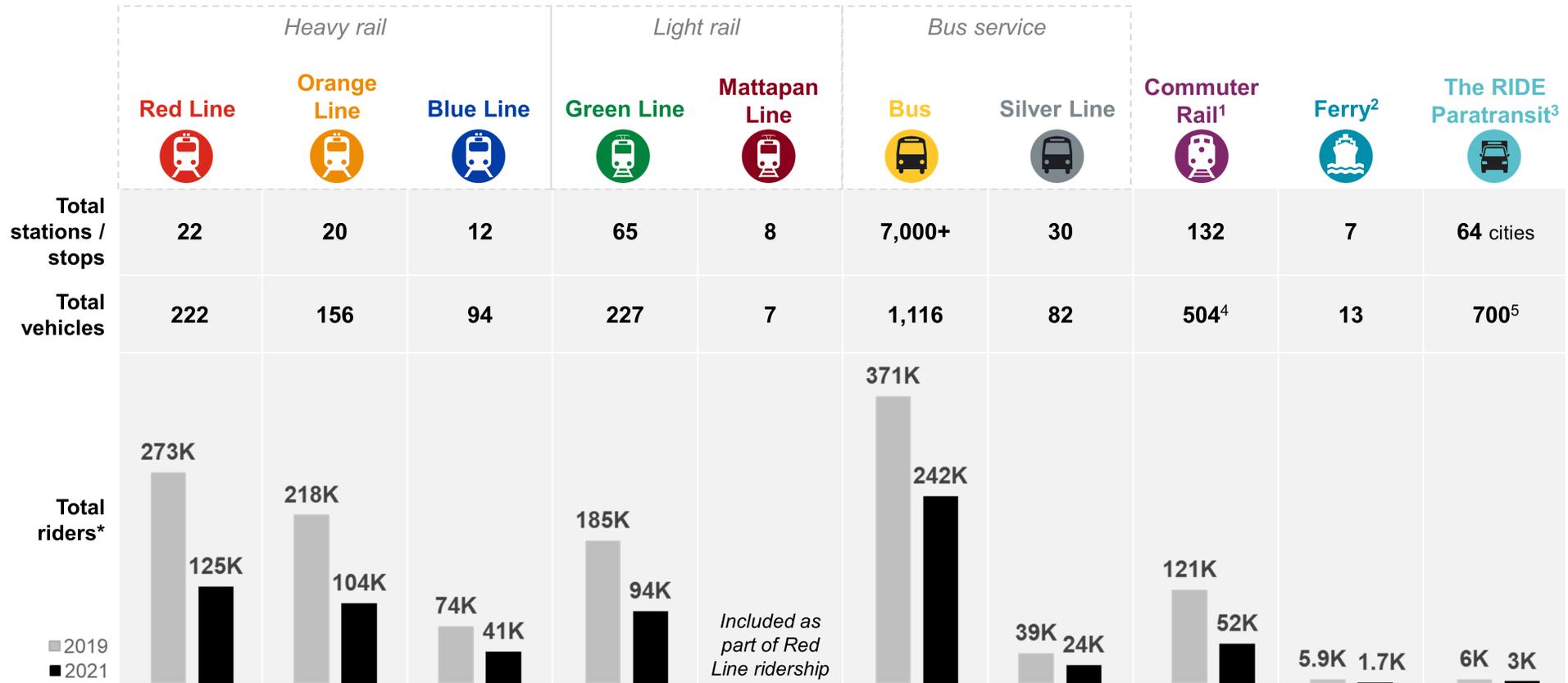
Download, print, and complete the [Discrimination Complaint Form](#) before sending it in, or stop by the office to request a hard copy.

A complaint alleging a violation of Title VI and/or the MBTA's nondiscrimination policies must be filed no later than one hundred and eighty (180) days from the date of the alleged violation. Complaints alleging violations of state or federal law must be filed within the timeframes established by statute, regulation, or case law (usually 300 days).

To speak with our Customer Support team, call 617-222-3200.

[Learn more about filing a discrimination complaint](#)

# MBTA by the Numbers



\* Average weekday trips as of Oct-19 and Oct-21

<sup>1</sup> Operated by Keolis

<sup>2</sup> Operated by Boston Harbor Cruises

<sup>3</sup> Operated by National Express Transit and Veterans Transportation Services

<sup>4</sup> 102 locomotives and 402 coaches

<sup>5</sup> 250 automobiles and 450 vans

# Document Overview

This document comprises the proposed State Fiscal Year 2023-2027 (FY23-27) Capital Investment Plan (CIP) of the Massachusetts Bay Transportation Authority (MBTA).

It is structured around three major components:

## 1. Overview of the CIP

- What is the CIP?
- Structure of the CIP
- Funding Sources
- Annual Development Process
- Public Engagement

## 2. FY23-27 Investment Programs

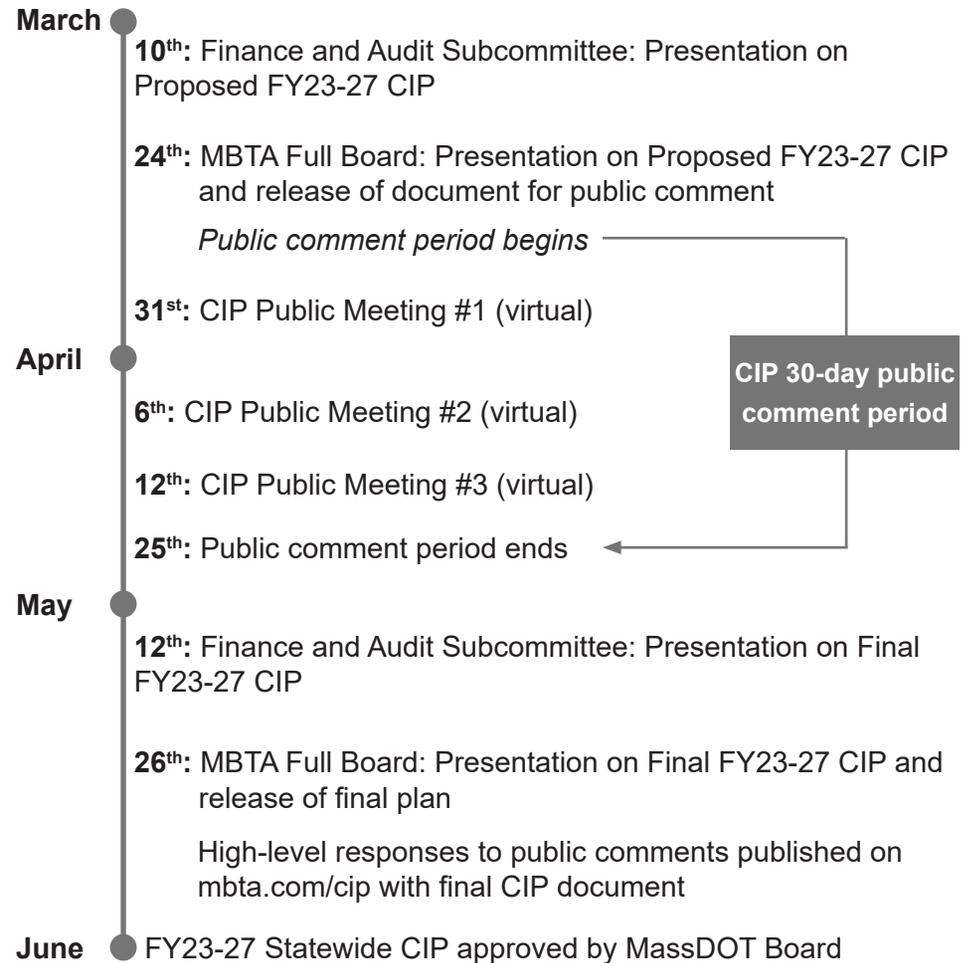
One-page overview for each CIP program summarizing program goals and planned investment level for FY23-27.

## 3. FY23-27 Project List

Detailed listing of all capital projects included in the FY23-27 CIP. Includes project description, phase, primary mode, planned five-year spend, and total authorized budget.

Following the closing of the public comment period on April 25th, the CIP will be further refined and submitted to the MBTA Board of Directors in May 2022. The final version of the FY23-27 MBTA CIP will be published on [mbta.com/cip](https://mbta.com/cip) before going into effect on July 1, 2022.

## Roadmap to Final CIP Release



# How to Read the Proposed CIP

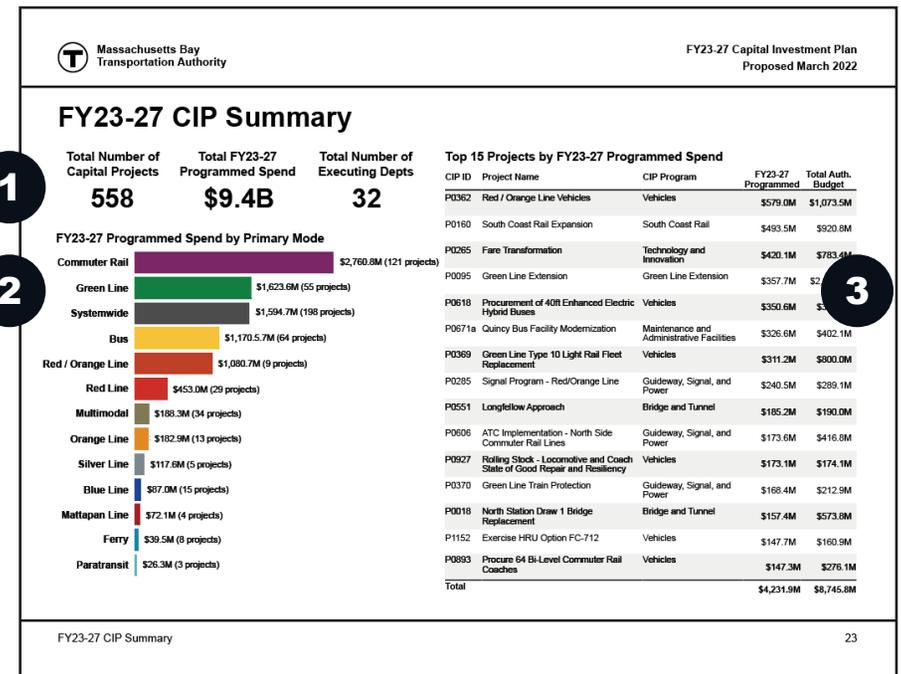
Investment details for the FY23-27 CIP are presented in this document using three different formats: a summary of our full five-year capital plan, a collection of one-page overviews for each CIP program, and a detailed project list containing scope, funding, and phase information for every project in the FY23-27 CIP.

The next few pages describe what is included in each section and explain how to read and interpret this information.

## FY23-27 CIP Summary

This section provides a high-level overview of the FY23-27 CIP, including how funding is allocated across modes. The components of this section are as follows:

- 1** Summary indicating the total number of capital projects, the total number of MBTA **Executing Departments** delivering these projects, and the total amount of funding programmed in FY23-27.
- 2** Breakdown of programmed FY23-27 funding by mode. **Primary Mode/Line** refers to the transit mode most impacted by a given capital project. Some projects that equally impact both the Red and Orange Line are classified under the **Red / Orange Line** category. **Multimodal** projects are those that can be equally attributed to more than one specific mode. **Systemwide** projects cannot be linked to one or more specific modes.
- 3** Table listing the 15 projects with the highest total programmed spend in FY23-27. **Total Authorized Budget** refers to the total amount of funding programmed to a project to date, and may include funding programmed before FY23 or beyond FY27.



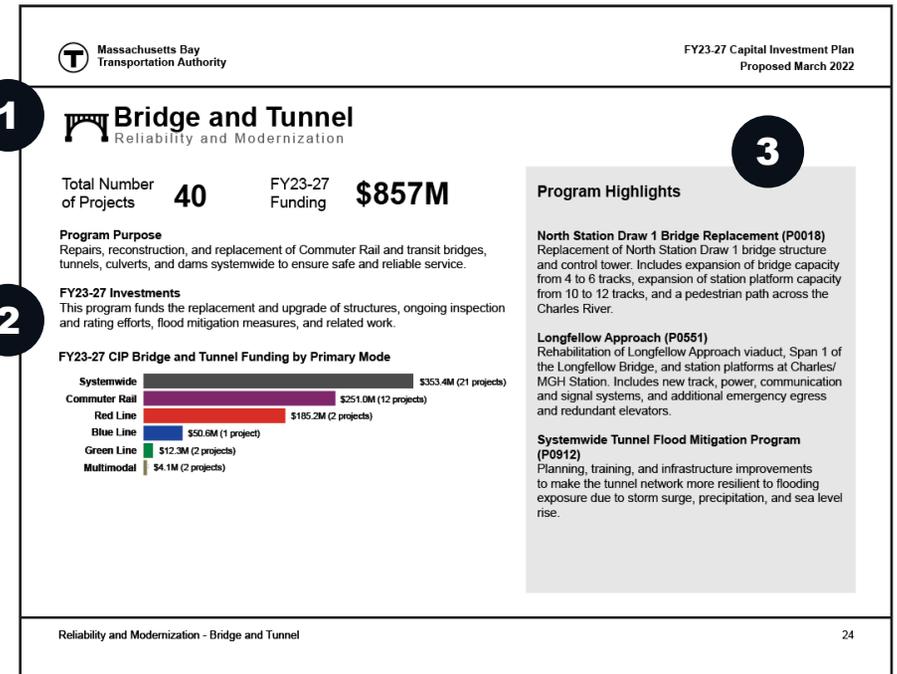
## FY23-27 Investment Programs

The CIP sorts all capital projects into ten unique investment programs that align with the MBTA's reliability, modernization and expansion goals and specific asset classes

This section provides an overview of the ten programs that make up the full CIP. Each program has a one-page summary that highlights its purpose, FY23-27 investment level, and some of its notable projects.

The program summaries are divided in three major components, as highlighted in the figure to the right and described below:

- 1** The top section of each program overview page indicates the name of the program, the CIP priority it falls under, the total number of capital projects in the program, and the total amount of funding programmed in FY23-27. It also includes a short description summarizing the program's purpose.
- 2** Below the program purpose is a breakdown of investments in this program by mode. **Primary Mode/Line** refers to the transit mode most impacted by a given capital project. Some projects that equally impact both the Red and Orange Line are classified under the **Red / Orange Line** category. **Multimodal** projects are those that can be equally attributed to more than one specific mode. **Systemwide** projects cannot be linked to one or more specific modes.
- 3** On the right hand side of the page is a box highlighting some of the notable ongoing projects in this program.



## Proposed FY23-27 Project List

Detailed information about each of the capital projects in the CIP can be found in the Project List. Organized by CIP program and CIP ID with newer projects first, the tables in this section include the following project details:

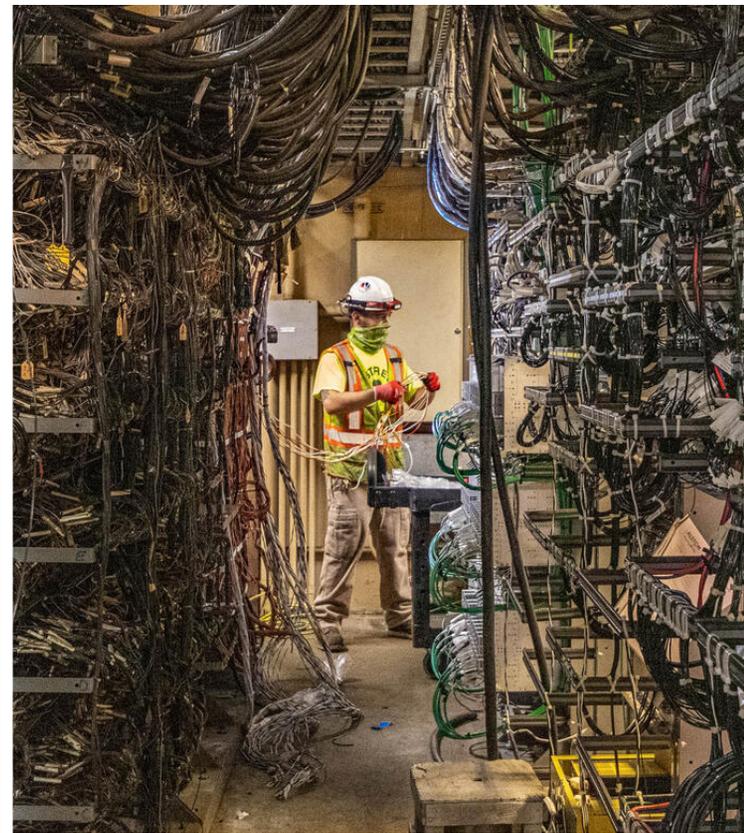
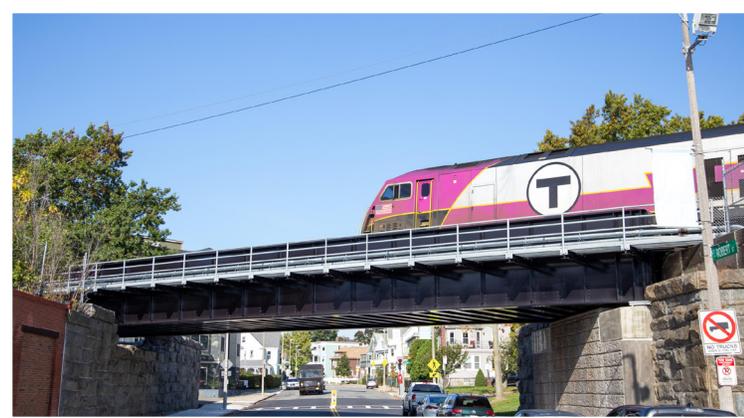
- 1** **Project Name** and **CIP ID** number, the two unique identifiers that indicate a specific capital project.
- 2** A short **Description** of the project's scope and purpose
- 3** The **Primary Mode/Line** associated with this project. **Primary Mode/Line** refers to the transit mode most impacted by a given capital project.
- 4** The **Current Phase** indicating what stage of development or implementation this project is in.
  - **Proposed** projects are in the early stages of development
  - **Planning or Pre-Design** may refer to assessments, feasibility studies, and other related preliminary work
  - Many projects require an extensive **Design** stage to develop specifications and fully define the project scope
  - Some projects involve the **Procurement** of materials, services, or assets such as vehicles
  - **Construction** indicates a project is being implemented or physically built
  - The **Closeout** phase is an administrative period after construction or implementation work is complete on a project

- 5** Funding information, including the **FY23-27 Programmed Spend** and current **Total Authorized Budget** for the project. **FY23-27 Programmed Spend** refers to the amount of spending anticipated within the five-year window. Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out. The **Total Authorized Budget** refers to the total amount of funding programmed to a project to date, and may include funding programmed before FY23 or beyond FY27.

Massachusetts Bay Transportation Authority		FY23-27 Capital Investment Plan Proposed March 2022			
Bridge and Tunnel Program					
Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
North Station Draw 1 Bridge Replacement (NEW)	Full replacement of the North Station Draw 1 bridge, including movable bridge structures, the north approach structure, and Control Tower A. Includes rehabilitation of south approach structure, expansion of bridge capacity from 4 to 6 tracks, and a pedestrian path across the Charles River.	Commuter Rail	Design	\$XYZ.0M	\$XYZ.0M
Lechmere Viaduct Rehabilitation Project (P0600)	Rehabilitation of 110-year-old viaduct to support increased train frequency and heavier loads associated with the Green Line Extension. This work includes complete reconstruction of the track, signals, and traction power on the viaduct.	Green Line	Construction	\$XYZ.0M	\$XYZ.0M
Longfellow Approach (P0551)	Rehabilitation of Longfellow Approach viaduct. Span 1 of the Longfellow Bridge, and station platforms at Charles/MGH. Also includes replacement of track and power systems, upgrades to communications and signal systems, and additional emergency egress and redundant elevators at Charles/MGH.	Commuter Rail	Implementation	\$XYZ.0M	\$XYZ.0M
Structural Repairs Systemwide (P0852)	Funding to support systemwide emergency, urgent, and routine structural repairs on bridges, tunnels, retaining walls, buildings, stairs, and other structures on an on-call basis.	Systemwide	Implementation	\$XYZ.0M	\$XYZ.0M
Bridges – Design (P0009)	Design funding to support the repair, rehabilitation, and replacement of bridges across the system.	Systemwide	Design	\$XYZ.0M	\$XYZ.0M
Systemwide Flood Mitigation Program (P0912)	The purpose of this program is to make MBTA's tunnel network more resilient to flooding exposures due to storm surge, precipitation, and sea level rise through planning, training, and infrastructure improvements.	Systemwide	Implementation	\$XYZ.0M	\$XYZ.0M
Urgent Structural Design Support (P1000)	Addresses emergency structural or safety-related deficiencies that require immediate follow-up inspection or action.	Systemwide	Implementation	\$XYZ.0M	\$XYZ.0M

**1**
**2**
**3**
**4**
**5**

Reliability and Modernization – Bridge and Tunnel 1



# Overview of the Capital Investment Plan

# Introduction

## What is the CIP?

The MBTA Capital Investment Plan (CIP) is a short-term, financially constrained investment program that funds the planning, construction, and capital maintenance of assets across the MBTA. It is a rolling five-year plan, updated annually in coordination with MassDOT and the Boston Region Metropolitan Planning Organization.

The CIP, also referred to as the capital plan or the capital budget, includes over 500 unique capital projects across a variety of asset types. It includes all capital expenditures planned over the next five years. These investments aim to maintain a state of good repair, modernize our assets, expand service, and meet our strategic priorities and performance goals. It is informed by several short and long term plans and policies, including:

- [Strategic Planning Report \(2020\)](#)
- [Safety Review Panel Report \(2019\)](#)
- [Rail Vision \(2019\)](#)
- [Focus40: The 2040 Investment Plan for the MBTA \(2019\)](#)
- [Transit Asset Management Plan \(2018\)](#)

## Structure of the CIP

The CIP is driven by two overarching priorities, which help to shape the overall strategy for capital investment:

- Improve the **reliability** of the system and **modernizing** existing assets to accommodate current or anticipated growth
- Make targeted investments in the **expansion** of the transportation network, in an effort to increase capacity or multimodal options

Each priority is broken out into programs, which are sized annually to align with our needs and strategic goals. Programs under the Reliability and Modernization priority are largely asset-based while the Expansion programs fund South Coast Rail, Green Line Extension, and planning and design for additional targeted expansion projects.

## Reliability and Modernization Programs



### Bridge and Tunnel

Repairs, reconstructs, and replaces Commuter Rail and transit bridges, tunnels, culverts, and dams



### Guideway, Signal, and Power

Rehabilitates, replaces, and upgrades guideway, signal, and power assets across Commuter Rail, transit, and bus



### Maintenance and Administrative Facilities

Rehabilitates and upgrades maintenance and administrative facilities



### Passenger Facilities

Rehabilitates and upgrades stations, stops and parking facilities to improve accessibility and customer experience



### Vehicles

Rehabilitates and replaces the revenue and non-revenue fleet and equipment for reliable and safe operations



### Business and Operational Support

Investments in asset management, safety and security, communications and other systems



### Technology and Innovation

Investments in technology to enhance productivity, modernize the system, and improve the quality of service

## Expansion Programs



### Green Line Extension (GLX)

Extension of Green Line service from Lechmere to Somerville and Medford



### South Coast Rail (SCR)

Extension of Commuter Rail service to Fall River, New Bedford, and Taunton on the South Coast of Massachusetts.



### Expansion Projects

Planning and design of targeted expansion projects identified as next priorities

# Funding Sources

The CIP is funded from a mix of federal, state, local sources, and third-party reimbursements, each of which varies with respect to its flexibility. Some funding sources must be spent on specific policy goals or modes, while others may be applied across the transportation network.



## Federal funding

### FTA Formula funds

- Urbanized Area Program (Section 5307)
- Buses and Bus Facilities (Section 5339)
- State of Good Repair (Section 5337)

### Discretionary funds

- Competitive processes run by federal agencies. Funds included in the CIP after award



## State funding

### Project-Specific

- Commonwealth bond proceeds for specific projects including:
  - South Coast Rail Phase 1, including Commuter Rail coaches
  - Green Line Extension
  - Red Line/Orange Line vehicles and infrastructure improvements
  - Procurement of Bi-Level Commuter Rail Coaches



## MBTA sources

### Bond

- Taxable, tax-exempt, and sustainability bonds

### Loans

- Build America Bureau (BAB) loans through TIFIA and RRIF

### Operating Budget Transfer

- Funds transferred from MBTA's operating budget to the capital program

### Capital Maintenance Fund (CMF)

- Authority's fund to be used at the discretion of the CFO

*Note - The sum of MBTA bonds and loans is limited by the overall coverage ratio in order to maintain the MBTA's credit rating*



## Others

### Reimbursable

- Outside funds through partnerships and formal agreements

 **Federal Sources**

There are several categories of Federal funding available to the MBTA, broadly organized into formula funds (which are allocated to the region based on a predetermined formula), discretionary funds (which are distributed based on a competitive application and selection process), and loans. The MBTA receives and is eligible to receive federal funding from several U.S. Department of Transportation agencies, including the Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), and the Federal Highway Administration (FHWA). The federal share of eligible capital costs is typically 80 percent for formula funds and can vary by program for discretionary funds.

In addition to the five-year CIP, the MBTA must also include all federally funded transportation projects in the Boston Region Metropolitan Planning Organization's (MPO) five-year Transportation Improvement Program (TIP). The TIP is the near-term investment program for the region's transportation system. It includes a financial plan that shows the current or proposed revenue sources for each project and is updated annually. An MPO-endorsed TIP is incorporated into the State Transportation Improvement Program (STIP) for submission to the FHWA, FTA, and United States Environmental Protection Agency (EPA) for approval.

Additional details about the Boston Region MPO's TIP can be found on the MPO website, [ctps.org/tip](https://ctps.org/tip).

**Federal Formula Funds**

Formula funds are FTA funds made available through three programs funded by the Highway Trust Fund, generally referred to by their subsection of US code:

- **Section 5307 Urbanized Area Formula Funding** makes Federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. Broad eligibility for transit capital projects includes planning, design, and engineering activities, bus and fixed-guideway (rail) capital investments, vehicle investments, track, signals and power. Urbanized areas of 200,000 or more, which includes Boston, may not use funds for operating assistance, however some preventative maintenance expenses are considered capital costs under this program.
- **Section 5337 State of Good Repair** funding provides capital assistance for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management (TAM) Plans.
- The **Section 5339 Bus and Bus Facilities** program provides funding to states and transit agencies through a statutory formula to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities.

## Discretionary Grants

Discretionary grants are funding available through competitive programs administered by Federal agencies. The MBTA is an eligible recipient of a number of grant programs administered by USDOT and its modal agencies (FTA, FRA, etc). The MBTA is also an eligible recipient of Department of Homeland Security funds under the Transit Security Grant Program and under some Federal Emergency Management Agency (FEMA) programs. Most competitive funding opportunities run on annual award cycle, have unique eligibility requirements, and require local matching funds.

## Other Federal Sources

Loans and credit assistance programs are administered by USDOT to provide low-cost financing for large-scale surface transportation projects. The two programs relevant to the MBTA are Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance for projects of national and regional significance and Railroad Rehabilitation and Improvement Financing (RRIF) loans for railroad infrastructure.

## State Sources

State funding is authorized by the legislature through the Transportation Bond Bill and allocated by the Executive Office for Administration and Finance (A&F) through the Commonwealth capital plan. Currently, the MBTA has authorization and allocated bond funding through the Rail Enhancement Program, with a smaller amount allocated as traditional “bond cap”.

- The **Rail Enhancement Program (REP)** provides for the issuance of either general obligation or special obligation bonds to fund MBTA capital expenditures and for other rail improvements in the Commonwealth. The bonds are repaid from the Commonwealth Transportation Fund. REP funds can support reliability, modernization and expansion initiatives and currently support the State’s share of the Green Line Extension, the Red and Orange Line Improvements Program, and a portion of South Coast Rail.
- **Bond Cap** refers to general obligation bonds backed by the Commonwealth’s revenues. Currently, a portion of South Coast Rail is funded through bond cap.

## MBTA Sources

MBTA sources refers to the proceeds of debt instruments issued by the MBTA to fund capital projects, which can include, bonds, sustainability bonds, commercial paper and bond anticipation notes. These funds are used to support projects 100% funded by MBTA debt and also provide the local match (typically 20%-50%) for federally-funded projects.

The Capital Maintenance Fund (CMF) is a fund held by the Authority that may be used at the discretion of the CFO to pay a portion of unexpected costs of maintenance, improvement, and replacement of the equipment, facilities, and assets of the Authority.



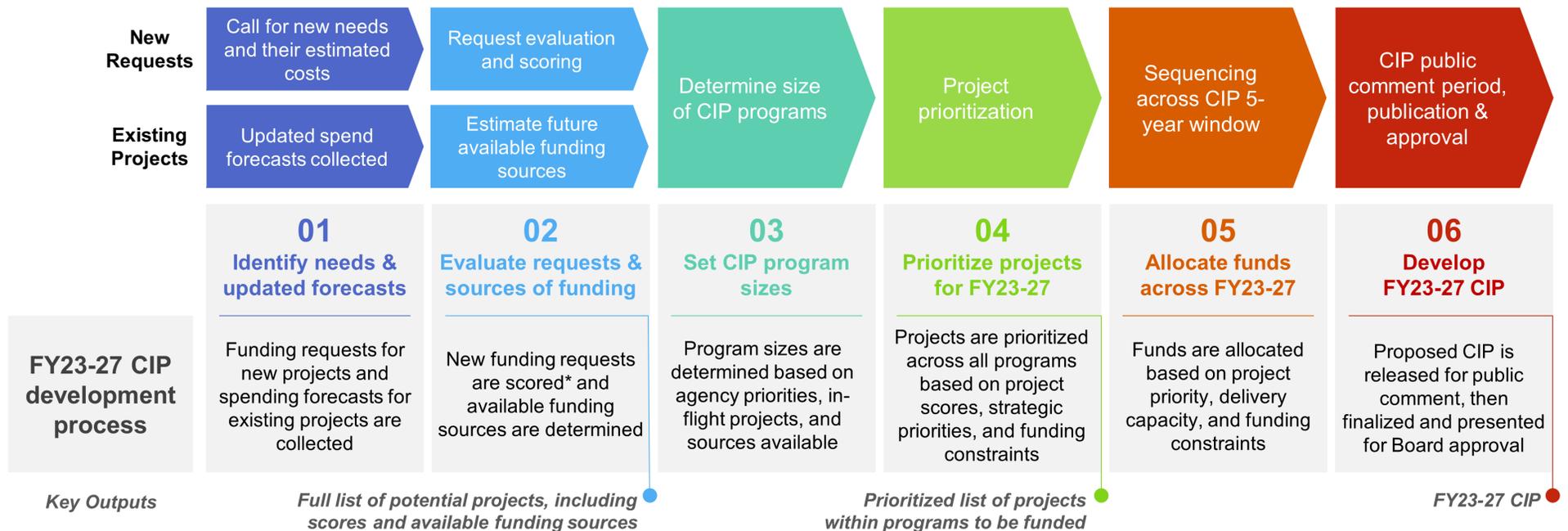
## Reimbursable Sources

Reimbursable sources refers to funding the MBTA receives to mitigate transportation impacts of development projects or as part of a joint development agreement with public or private entities.

# Developing the CIP

## Annual Development Cycle

The CIP is updated on an annual basis to align with current investment priorities and allocate new funding sources. The annual CIP development cycle runs from September to June, beginning with an internal call for projects and the evaluation and scoring of funding requests. We prioritize funding recommendations to align with agency goals and project scoring outcomes. This allows us to match planned investments with available funding. A full draft of the five-year CIP, including both existing projects and new investments, is assembled and posted for public comment. We then refine the CIP further and submit it to the MBTA Board of Directors for approval before it is finalized and published in June.



## Project Scoring and Selection

A key step in the CIP development process is the evaluation, scoring, and prioritization of capital funding requests. This process is necessary to understanding the impacts of our proposed capital projects. Cross-functional evaluation teams representing diverse perspectives across the MBTA and MassDOT review and score each funding request using standard criteria mandated by [MassDOT's Project Selection Advisory Council \(PSAC\)](#). They include:

Criteria	Description
<b>System Preservation</b>	The extent to which the project contributes to a state of good repair on the transportation system and aligns with asset management goals.
<b>Mobility</b>	The extent to which the project is intended to provide modal options efficiently and effectively for all users through benefits to reliability, accessibility, and other measures of service quality.
<b>Cost Effectiveness</b>	The extent to which the project impacts operating costs and revenues and maximizes the return on the public's investment.
<b>Environmental and Health Effects</b>	The extent to which the project meets State goals of improving air quality and reducing greenhouse gases, and results in a reduction of pollution.
<b>Policy Support</b>	The extent to which the project is aligned with MBTA policy priorities, including Focus 40.
<b>Economic Impact</b>	The extent to which the project supports economic growth in the Commonwealth.
<b>Social Equity</b>	The extent to which the project equitably distributes social, economic, and health benefits to residents and local businesses.
<b>Safety</b>	The extent to which the project addresses documented or identified safety issues and hazards, and security vulnerabilities and risks.

# Public Engagement

We want to hear from you! The MBTA invites comments from the public on the proposed FY23-27 CIP. Tell us which projects you're excited about and what investments you would like to see us continue to make in order to enhance our transportation network and support local communities and riders. Public feedback is important to the CIP development process, and we appreciate your input.

The public comment period for the proposed FY23-27 MBTA CIP will open on March 24, 2022 and close on April 25, 2022. All comments will be reviewed by MBTA staff, and summary responses will be shared on [mbta.com/cip](https://www.mbta.com/cip).

## Public Meetings

Join us for one of our public meetings, where we will provide an overview of the proposed FY23-27 CIP and invite attendees to share their comments:

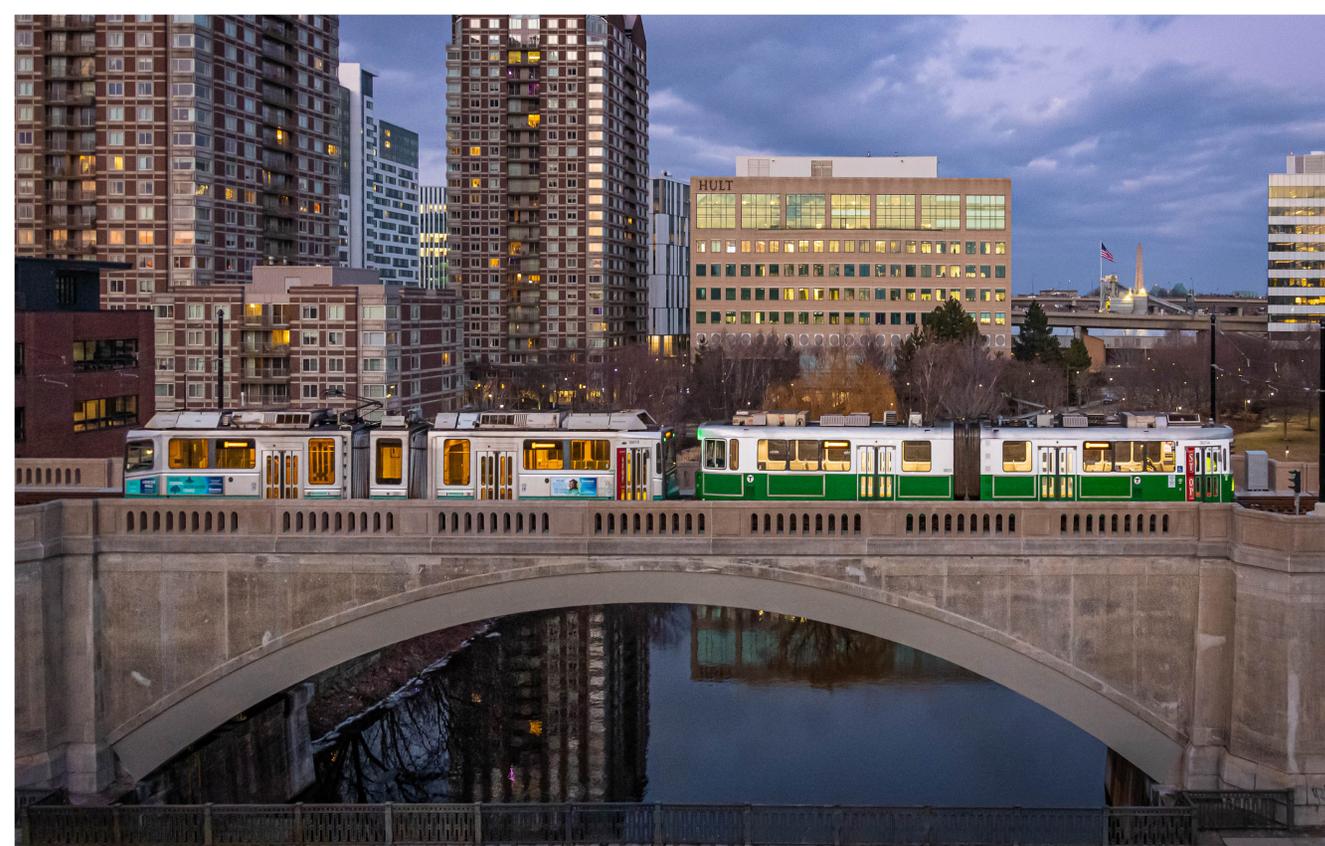
- March 31, 2022 from 6 - 7:30pm via Zoom
- April 6, 2022 from 6 - 7:30pm via Zoom
- April 12, 2022 from 7 -8:30pm via Zoom

Meeting registration links, presentation materials, and recordings will be made available on [mbta.com/cip](https://www.mbta.com/cip).

## Other Opportunities for Comment

If you are unable to attend a public meeting, you are welcome to share your comments by:

- Completing our [online CIP comment form](https://www.mbta.com/cip)
- Sending an email to [cipengagement@mbta.com](mailto:cipengagement@mbta.com)
- Sending a letter to: MBTA Capital Investment Plan  
c/o Adam Kamoune  
10 Park Plaza, Suite 3830  
Boston, MA 02116



# FY23-27 Investment Programs

# FY23-27 CIP Summary

Total Number of  
Capital Projects

**552**

Total FY23-27  
Programmed Spend

**\$9.4B**

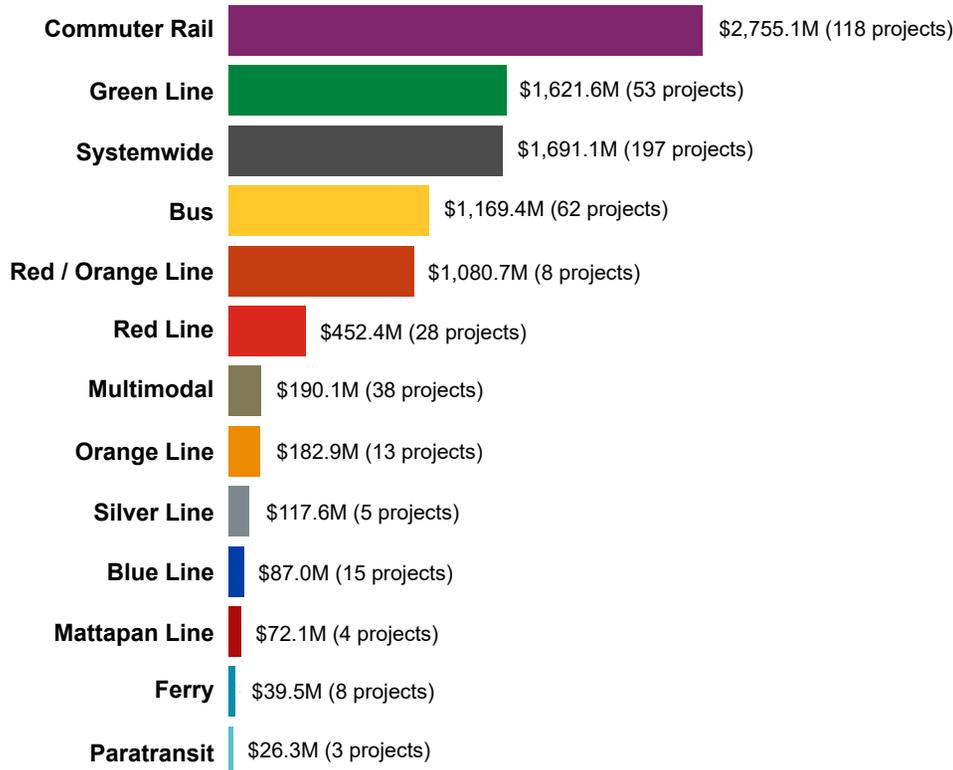
Total Number of  
Executing Depts

**32**

## Top 15 Projects by FY23-27 Programmed Spend

CIP ID	Project Name	CIP Program	FY23-27 Programmed	Total Auth. Budget
P0362	Red / Orange Line Vehicles	Vehicles	\$579.0M	\$1,073.5M
P0160	South Coast Rail Expansion	South Coast Rail	\$493.5M	\$920.8M
P0265	Fare Transformation	Technology and Innovation	\$420.1M	\$783.4M
P0095	Green Line Extension	Green Line Extension	\$357.7M	\$2,118.6M
P0618	Procurement of 40ft Enhanced Electric Hybrid Buses	Vehicles	\$350.6M	\$353.9M
P0671a	Quincy Bus Facility Modernization	Maintenance and Administrative Facilities	\$326.6M	\$402.1M
P0369	Green Line Type 10 Light Rail Fleet Replacement	Vehicles	\$311.2M	\$800.0M
P0285	Signal Program - Red/Orange Line	Guideway, Signal, and Power	\$240.5M	\$289.1M
P0551	Longfellow Approach	Bridge and Tunnel	\$185.2M	\$210.0M
P0606	ATC Implementation - North Side Commuter Rail Lines	Guideway, Signal, and Power	\$173.6M	\$416.8M
P0927	Rolling Stock - Locomotive and Coach State of Good Repair and Resiliency	Vehicles	\$173.1M	\$174.1M
P0370	Green Line Train Protection	Guideway, Signal, and Power	\$168.4M	\$212.9M
P0018	North Station Draw 1 Bridge Replacement	Bridge and Tunnel	\$157.4M	\$573.8M
P1152	Procurement of Hyundai Rotem Bi-Level Coaches - Option	Vehicles	\$147.7M	\$160.9M
P0893	Procurement of 67 Bi-Level Commuter Rail Coaches	Vehicles	\$147.3M	\$276.1M
<b>Total</b>			<b>\$4,231.9M</b>	<b>\$8,765.8M</b>

## FY23-27 Programmed Spend by Primary Mode



# Bridge and Tunnel

Reliability and Modernization

Total Number of Projects **40**      FY23-27 Funding **\$857M**

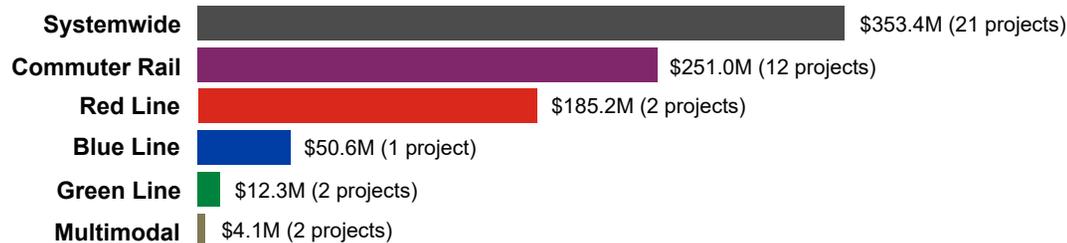
### Program Purpose

Repairs, reconstruction, and replacement of Commuter Rail and transit bridges, tunnels, culverts, and dams systemwide to ensure safe and reliable service.

### FY23-27 Investments

This program funds the replacement and upgrade of structures, ongoing inspection and rating efforts, flood mitigation measures, and related work.

### FY23-27 CIP Bridge and Tunnel Funding by Primary Mode



### Program Highlights

#### North Station Draw 1 Bridge Replacement (P0018)

Replacement of North Station Draw 1 bridge structure and control tower. Includes expansion of bridge capacity from 4 to 6 tracks, expansion of station platform capacity from 10 to 12 tracks, and a pedestrian path across the Charles River.

#### Longfellow Approach (P0551)

Rehabilitation of Longfellow Approach viaduct, Span 1 of the Longfellow Bridge, and station platforms at Charles/ MGH Station. Includes new track, power, communication and signal systems, and additional emergency egress and redundant elevators.

#### Systemwide Tunnel Flood Mitigation Program (P0912)

Planning, training, and infrastructure improvements to make the tunnel network more resilient to flooding exposure due to storm surge, precipitation, and sea level rise.

# Guideway, Signal, and Power

Reliability and Modernization

Total Number of Projects **124**      FY23-27 Funding **\$2,179M**

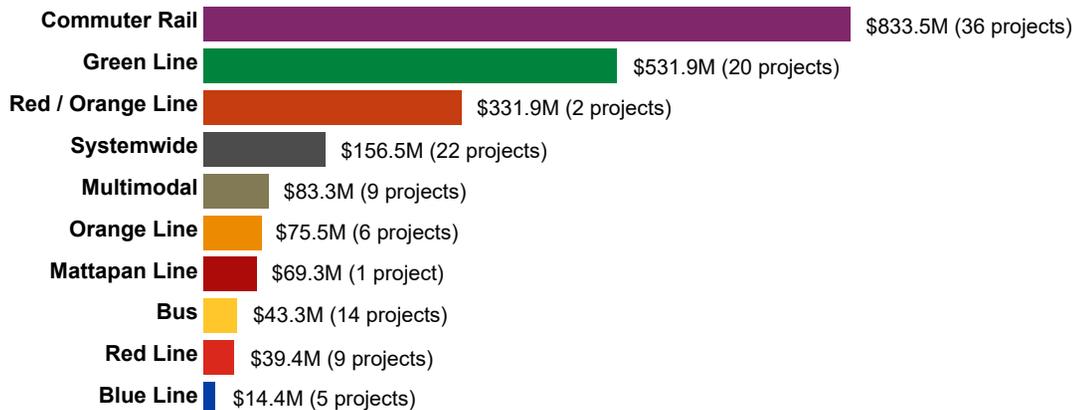
### Program Purpose

Rehabilitation, replacement, and upgrade of guideway, signal, and power assets across commuter rail, transit, and bus systems.

### FY23-27 Investments

Major investments include track and signal replacement, expansion of the bus lane network, and implementation of the MBTA's PTC and ATC systems.

### FY23-27 CIP Guideway, Signal, and Power Funding by Primary Mode



### Program Highlights

#### Green Line Train Protection (P0370)

Procurement and installation of on-board and wayside equipment for a train protection and information system on the Green Line to mitigate red signal violations, train-to-train collisions, derailments, and intrusions into work zones.

#### Power Systems Resiliency Program (P0705)

Replacement of damaged power cable duct banks that support the rapid transit network. Includes excavation, demolition, conduit replacement, manhole replacement, surface restoration, and power cable installation.

#### Blue Hill Ave Transit Priority Corridor (P1005b)

Local match funding to support the addition of center-running dedicated bus lane on Blue Hill Avenue in Dorchester and Mattapan in Boston.



# Maintenance and Administrative Facilities

Reliability and Modernization

Total Number of Projects **77**      FY23-27 Funding **\$1,240M**

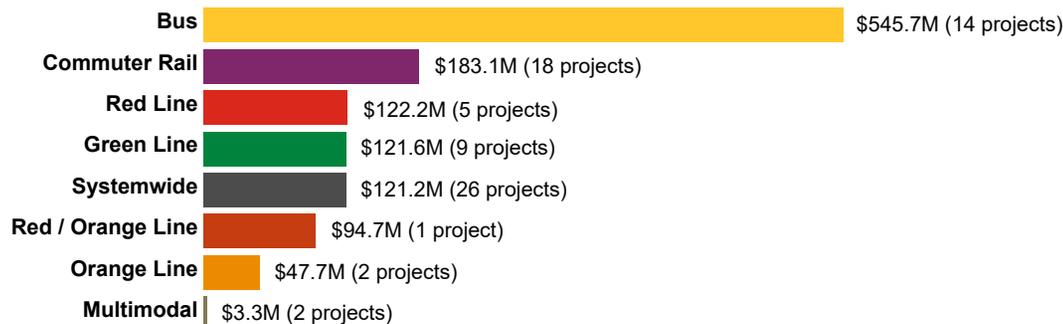
### Program Purpose

Rehabilitation, replacement, and upgrade of maintenance and administrative facilities supporting MBTA service.

### FY23-27 Investments

Major investments in this program focus on the modernization and expansion of our bus and rail facilities to accommodate new vehicle fleets. This program also includes improvements to roofing, fire systems, safety, and other facility elements.

### FY23-27 CIP Maintenance and Admin. Facilities Funding by Primary Mode



### Program Highlights

#### Wellington Yard Complete Upgrade (P0514)

Full rebuild of Wellington Yard including upgrades to track, power, signal, communications, drainage, and other yard elements.

#### Quincy Bus Facility Modernization (P0671a)

Relocation and replacement of the Quincy bus maintenance facility. The new, modernized facility will expand capacity and include the infrastructure necessary to support the MBTA's first battery-electric bus (BEB) fleet.

#### Facility Circulation Safety Improvements (P1003)

Assessment of vehicular and pedestrian circulation at MBTA bus facilities, and the implementation of necessary improvements to enhance employee safety.

# Passenger Facilities

Reliability and Modernization

Total Number of Projects **87**      FY23-27 Funding **\$920M**

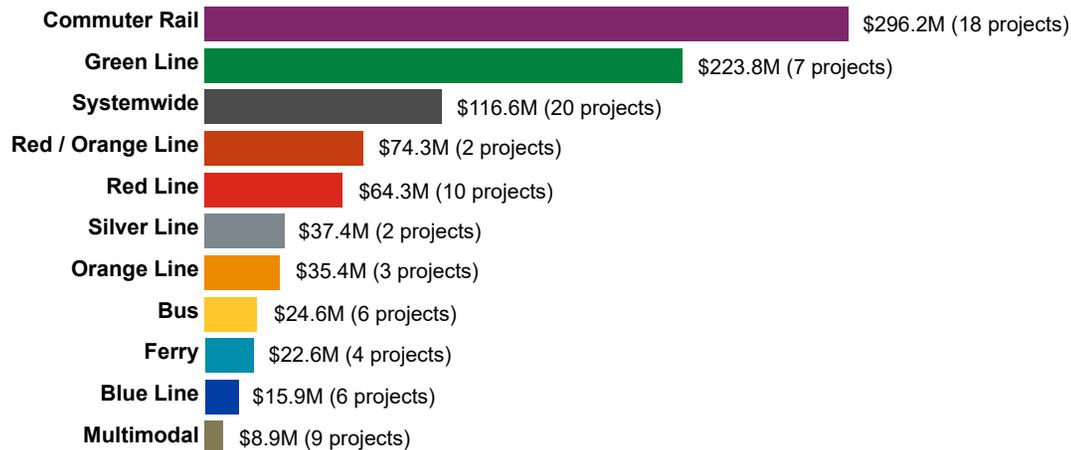
### Program Purpose

Rehabilitation and upgrade of MBTA's stations, stops, and parking facilities to improve accessibility and customer experience.

### FY23-27 Investments

This program focuses on accessibility improvements, elevator replacement, platform upgrades, improved paths of travel, parking upgrades, and other station improvements.

### FY23-27 CIP Passenger Facilities Funding by Primary Mode



### Program Highlights

#### Symphony Station Improvements (P0168)

Upgrade of Symphony Station on the Green Line to a modernized, fully accessible facility. Includes construction of four new elevators, raised platforms, accessible restrooms, installation of egress stairs, and upgraded fire alarm systems.

#### Oak Grove Vertical Transportation Improvements (P0076)

Accessibility upgrades at Oak Grove station including 3 new elevators, replacement of one existing elevator, sidewalk repairs, and wayfinding and station brightening improvements.

#### Bus Priority and Accessibility Improvements (P0613)

Design and construction of dedicated bus lanes in Boston, Chelsea, Somerville, Cambridge, Revere and Everett. This project also includes Bus Stop Accessibility improvements at 200 bus stops as part of the PATI program.



# Vehicles

Reliability and Modernization

Total Number of Projects **86**      FY23-27 Funding **\$2,368M**

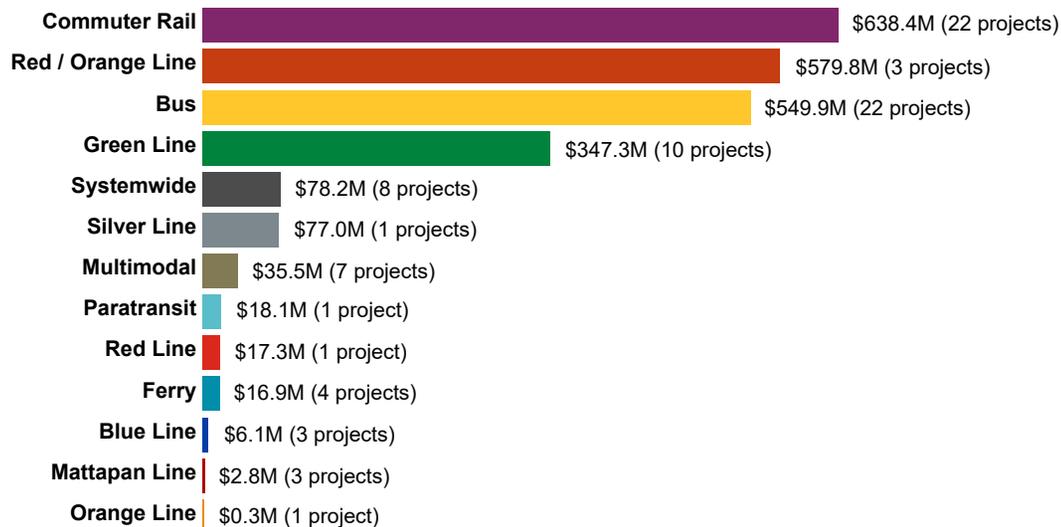
### Program Purpose

Rehabilitation and replacement of MBTA's revenue and non-revenue fleet and equipment for reliable and safe operations.

### FY23-27 Investments

Major investments include new Green Line, Red Line, and Orange Line fleets, bi-level Commuter Rail Coaches, hybrid and electric buses, and overhaul programs.

### FY23-27 CIP Vehicles Funding by Primary Mode



### Program Highlights

#### Red and Orange Line Vehicle Procurement (P0362)

Procurement of 252 new Red Line vehicles and 152 new Orange Line vehicles to support heavy rail service. The new vehicles include capacity and accessibility enhancements as well as improved onboard diagnostics for operators and maintenance staff.

#### Procurement of Battery Electric 40ft Buses and Related Infrastructure (P0653)

Purchase of 40ft battery electric buses (BEBs) to replace aging fleets currently running diesel bus service out of Quincy and trolleybus service out of North Cambridge.

#### Bi-Level Coach Procurement (P0893)

Procurement of 43 bi-level Control Trailer Coaches (CTC) and 40 bi-level Blind Trailer Coaches (BTC) to support Commuter Rail service.

# Business and Operational Support

Reliability and Modernization

Total Number of Projects **77**      FY23-27 Funding **\$310M**

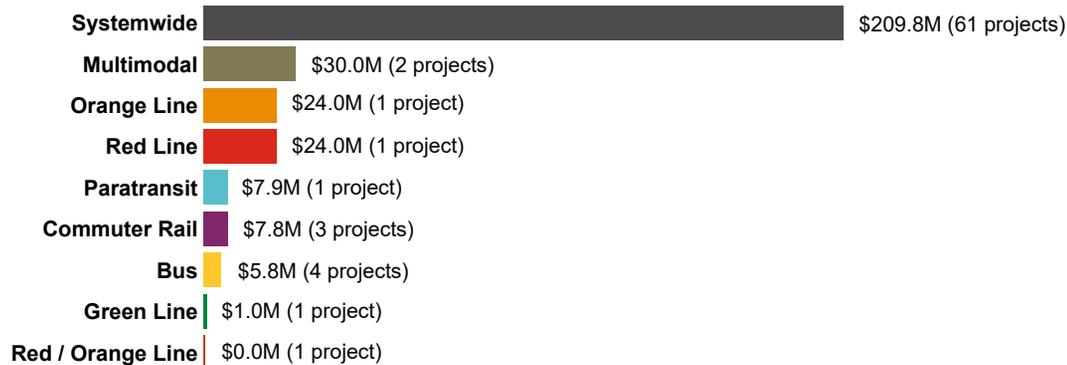
### Program Purpose

Investments in systems including asset management, safety and security, and communications.

### FY23-27 Investments

Major investments include our ongoing asset management program and systemwide security improvements, as well as upgrades to MBTA's workforce system, business processes, standards, and guidelines.

### FY23-27 CIP Business and Operational Support Funding by Primary Mode



### Program Highlights

#### Environmental Compliance Management (P0435)

Remediation and removal of contaminated soils, development of permit applications or compliance plans, and installation of compliance equipment in order to address small-scale environmental matters.

#### New Paratransit Software Solution (P0643)

Procurement and implementation of an updated software for reserving and scheduling trips on the RIDE. This software will also process fare transactions, handle complaints, manage vehicle dispatch, and compile reporting data.

#### Systemwide Asset Management Program Phase 3 (P0904)

Continued implementation of updates to the MBTA's asset inventory for the National Transit Database (NTD) and Transit Asset Management Plan (TAMP).

# Technology and Innovation

Reliability and Modernization

Total Number of Projects **53**      FY23-27 Funding **\$579M**

### Program Purpose

Investments in technology to enhance productivity, modernize the system, and improve the quality of MBTA services.

### FY23-27 Investments

Major investments include the Fare Transformation initiative, upgrades to the MBTA's IT infrastructure, and implementation of a new software solution for The RIDE paratransit service.

### FY23-27 CIP Technology and Innovation Funding by Primary Mode

<b>Systemwide</b>	\$565.4M (40 projects)
<b>Multimodal</b>	\$10.1M (5 projects)
<b>Commuter Rail</b>	\$2.7M (3 projects)
<b>Green Line</b>	\$0.7M (2 projects)
<b>Paratransit</b>	\$0.2M (1 project)
<b>Bus</b>	\$0.1M (2 projects)

### Program Highlights

#### Fare Transformation (P0265)

Replacement of outdated and overly complex fare system with new fare technologies to ensure equal access and improve operations.

#### Rider Service Alerts Resilience & Improvements (P0689o)

Upgrades to the T-alerts system that creates, manages, and distributes service alerts to riders.

#### IT Infrastructure State of Good Repair (P0944)

Technology refresh of various IT assets, including storage, servers, data network, and telephone systems to support lifecycle management and maintain assets in a state of good repair.

 **Green Line Extension (GLX)**  
Expansion

Total Number of Projects **2**      FY23-27 Funding **\$383M**

**Program Purpose**

Extension of Green Line service from Lechmere to Somerville and Medford.

**FY23-27 Investments**

Ongoing investments in the Green Line Extension program include planning, design, and construction of new tracks and stations, as well as the procurement of new Green Line vehicles to support existing and new transit service.

**FY23-27 CIP Green Line Extension (GLX) Funding by Primary Mode**

Green Line  \$383.0M (2 projects)

**Program Highlights**

**Green Line Extension (P0095)**

Extension of the northern end of the Green Line from Lechmere to Union Square in Somerville and College Avenue in Medford.

**Green Line Extension - Vehicles (P0095a)**

Procurement of 24 Type 9 light rail vehicles to support the Green Line Extension. All vehicles have been received and are in service as of July 2021.

 **South Coast Rail (SCR)**  
Expansion

Total Number of Projects **2**      FY23-27 Funding **\$533M**

**Program Purpose**

Extension of Commuter Rail service to Fall River, New Bedford, and Taunton on the South Coast of Massachusetts.

**FY23-27 Investments**

The two South Coast Rail projects will extend Commuter Rail service to provide a reliable transit connection between southeastern Massachusetts and Boston. Ongoing investments in this program include planning, design, and construction of new tracks and stations, as well as the procurement of locomotives and coaches to provide service on the South Coast Rail.

**FY23-27 CIP South Coast Rail (SCR) Funding by Primary Mode**

Commuter Rail  \$533.3M (2 projects)

**Program Highlights**

**South Coast Rail Expansion (P0160)**

Extension of Commuter Rail service to Fall River, New Bedford, and Taunton on the South Coast of Massachusetts.

**SCR - Procurement 16 CR Coaches (P0160a)**

Procurement of additional coaches to support the expansion of Commuter Rail service to the South Coast.

# Expansion Projects

Expansion

Total Number of Projects **7**      FY23-27 Funding **\$27M**

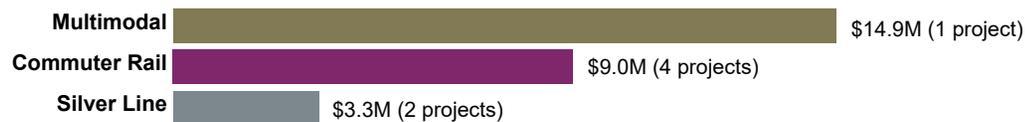
**Program Purpose**

Planning and design of targeted expansion projects identified as next priorities for the MBTA.

**FY23-27 Investments**

Major investments in this program include planning and early design of bus and rail expansion projects and improvements to existing infrastructure to support Silver Line service expansion.

**FY23-27 CIP Expansion Projects Funding by Primary Mode**



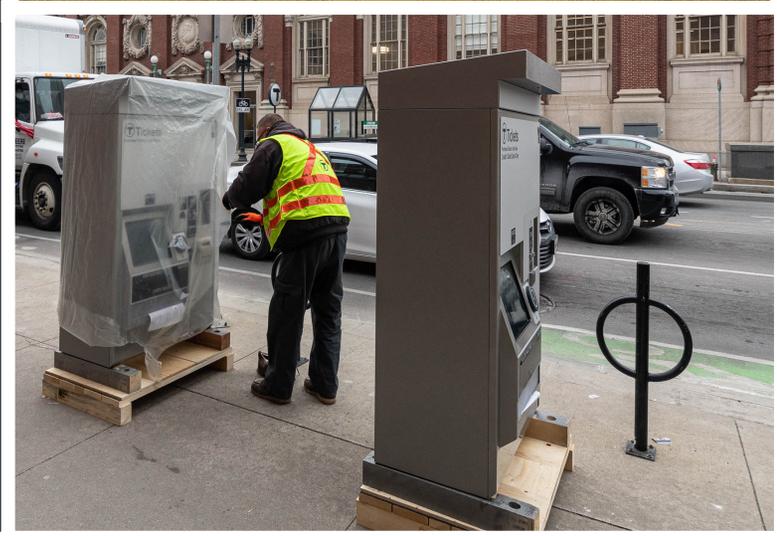
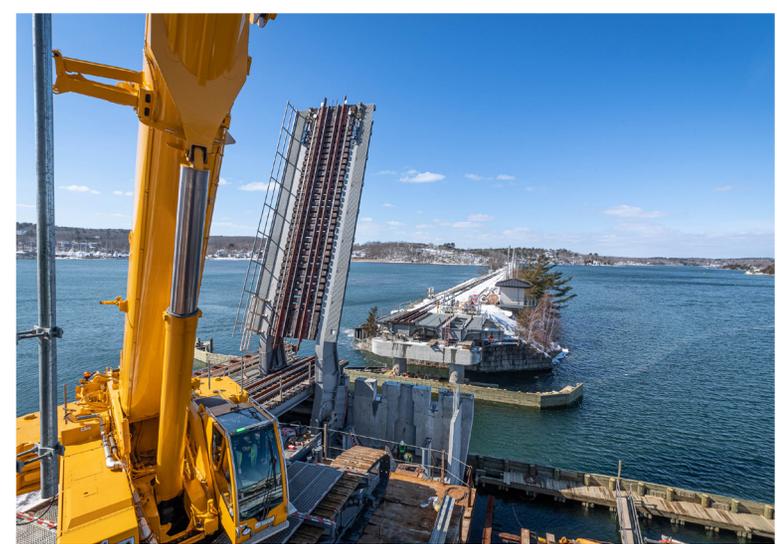
**Program Highlights**

**Silver Line Gateway - Phase 2 (P0496)**

Construction of new Chelsea Commuter Rail station with a direct connection to the Silver Line. Includes new platforms, canopies, foundation systems, signage, track infrastructure, train signals, power cable duct banks, and BRT grade crossings.

**Red-Blue Connector (P0866)**

Extension of the Blue Line from its current terminus at Bowdoin Station to Charles/MGH station, in order to establish a direct connection between the Blue and Red Lines. This project is currently funded for planning and initial design.



# Proposed FY23-27 Project List by Program

## Bridge and Tunnel Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Bridge Inspection and Load Rating Manual Development (P1138)	Creation of a comprehensive bridge inspection and load rating manual to standardize inspection and rating procedures for bridges serving commuter/freight rail, transit, vehicular, and pedestrian traffic.	Systemwide	Proposed	\$1.3M	\$1.3M
Systemwide Tunnel Dewatering Pump System Upgrades (P1125)	Upgrade of approximately 52 dewatering pump systems, which are required to pump out rainwater from low points in the track and tunnel systems.	Systemwide	Proposed	\$2.5M	\$2.5M
352 General Engineering Services for Transit Facilities Maintenance (P1124)	Engineering support services for repair and replacement projects. This includes the design of various repairs throughout the system as well as the production of stamped drawings and plans.	Systemwide	Proposed	\$3.8M	\$3.8M
Bridge & Tunnel Structural Repair (P1123)	Funding to support non-routine structural repairs of bridges, tunnels, stairways, and platforms systemwide. This project focuses on relatively minor repairs that fall outside the scope of routine maintenance.	Systemwide	Proposed	\$7.5M	\$7.5M
Systemwide Retaining Wall Inspection and Rating (P1119)	Routine inspection and repair of approximately 214 retaining walls. The MBTA's extensive network of retaining walls is an integral element of our bridges, railroad embankments, and other infrastructure, and are critical safety elements.	Systemwide	Proposed	\$2.8M	\$5.5M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Systemwide Culvert Inspection and Load Rating (P1116)	Inventory, inspection, and load rating of the MBTA's approximately 1,300 culverts supporting in-service structures systemwide. The scope of work includes an initial inspection to establish baseline condition, followed by inspection every five years.	Systemwide	Proposed	\$10.5M	\$12.5M
South Elm Street Bridge Replacement (P1115)	Replacement of South Elm Street bridge on the Haverhill Line serving Commuter Rail, Downeaster, and Pan Am freight trains.	Commuter Rail	Construction	\$15.2M	\$15.2M
Bridge Program Pipeline - Rehabilitation, Repair and Replacement (P1107)	This program uses information provided through the bridge inspection and load rating program to design and construct prioritized bridge rehabilitation, repair, or replacement projects.	Systemwide	Proposed	\$20.0M	\$20.0M
Emergency Egress Ventilation and Lighting (P1001)	Design of life safety systems improvements (emergency egress lighting, backup generators, ventilation, fire hydrants and partitions) at Cabot, Fellsway, Lynn, Charlestown, Albany, and Southampton bus garages and Reservoir and Riverside car houses.	Multimodal	Design	\$0.6M	\$1.0M
Urgent Structural Design Support (P1000)	Addresses emergency structural or safety-related deficiencies that require immediate follow-up inspection or action.	Multimodal	Design	\$3.5M	\$3.8M

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<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Systemwide Tunnel Flood Mitigation Program (P0912)	Planning, training, and infrastructure improvements to make the tunnel network more resilient to flooding exposures due to storm surge, precipitation, and sea level rise.	Systemwide	Planning	\$54.5M	\$149.3M
Repairs and Rehabilitation of MBTA-Owned Dams (P0909)	Rehabilitation of the Spillway Dam on the Providence/Stoughton Line in Canton and the Cordaville Pond Dam on the Framingham/Worcester Line in Southborough.	Commuter Rail	Pre-Design	\$9.5M	\$10.0M
East Street Bridge Replacement (Dedham) (P0907)	Replacement of East Street bridge carrying the Franklin Line in Dedham. The new bridge will feature improved vertical and horizontal clearance, improved roadway features, and improved pedestrian and vehicle access to East Street.	Commuter Rail	Design	\$18.0M	\$18.0M
Saugus Drawbridge Replacement (P0892)	Design of Saugus Drawbridge replacement on the Newburyport/Rockport Line. The new bridge would include a widened approach embankment, a new control house, signal upgrades, and relocation of submerged utilities.	Commuter Rail	Design	\$12.1M	\$19.7M
Robert Street Bridge (P0853)	Full replacement of the Robert Street Bridge on the Needham Line in Roslindale. Includes sidewalk and roadway repairs, higher bridge clearance, and a design that can accommodate potential future addition of a second track.	Commuter Rail	Construction	\$0.0M	\$12.8M
Structural Repairs Systemwide (P0852)	Funding to support systemwide structural repairs on bridges, tunnels, retaining walls, buildings, stairs, and other structures on an on-call basis.	Systemwide	Construction	\$27.4M	\$30.1M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Norfolk Ave and East Cottage St Bridges (P0851)	Replacement and repair of Norfolk Ave and East Cottage St bridges on the Fairmount Line. This work addresses section loss in girders, gussets, web stiffeners, rivets, lateral bracing, and cracks and spalls on abutment and wing walls.	Commuter Rail	Construction	\$13.8M	\$22.1M
Lechmere Viaduct Rehabilitation Project (P0850)	Rehabilitation of Lechmere viaduct to support increased train frequency and heavier loads associated with the Green Line Extension. This work includes complete reconstruction of the track, signals, and traction power on the viaduct.	Green Line	Construction	\$8.7M	\$99.6M
Tunnel Emergency Ventilation Program (P0704)	Funding to support inventory, inspection, monitoring, design and necessary construction to improve emergency ventilation in the tunnel network.	Systemwide	Planning	\$13.3M	\$14.7M
Underground Structure Design/Repair & Geotechnical Engineering Services (P0667)	Engineering services for the repair and rehabilitation of underground structures systemwide.	Systemwide	Design	\$2.6M	\$4.0M
Blue Line Infrastructure Improvements (P0631)	Includes rebuilding of the Long Wharf Emergency Egress; track and tunnel infrastructure improvements between Aquarium and Maverick; communication rooms improvements; and Suffolk Downs station reconstruction.	Blue Line	Design	\$50.6M	\$73.7M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Systemwide Bridge Inspection and Rating (P0627)	Program to support in-depth inspection and load rating of MBTA-owned bridges at regular intervals. Load ratings are used to establish a systemwide priority list of bridge repairs, rehabilitation, and replacement.	Systemwide	Design	\$61.3M	\$103.9M
Bridge Repairs Systemwide (Contracts 4 and 5) (P0611)	Construction services to perform structural repairs on bridges, retaining walls, buildings, stairs, and other structures throughout the system on an on-call basis.	Systemwide	Construction	\$2.6M	\$12.3M
Dorchester Avenue Bridge (P0552)	Replacement of Dorchester Avenue Bridge and installation of a new tunnel roof beneath the bridge.	Systemwide	Design	\$27.3M	\$37.1M
Longfellow Approach (P0551)	Rehabilitation of Longfellow Approach viaduct, Span 1 of the Longfellow Bridge, and station platforms at Charles/MGH Station. Includes new track, power, communication and signal systems, and additional emergency egress and redundant elevators.	Red Line	Design	\$185.2M	\$210.0M
Bridge Bundling Contract (P0495)	Replacement of six commuter rail bridges at Intervale Rd. in Weston; Bacon St. in Wellesley; High Line Bridge in Somerville; Lynn Fells Parkway in Melrose; Parker St. in Lawrence; and Commercial St. in Lynn.	Systemwide	Construction	\$65.3M	\$132.2M
Tunnel Repairs (On-Call) (P0466)	Construction services to perform steel and concrete tunnel repairs throughout the system on an on-call basis.	Systemwide	Construction	\$14.6M	\$28.6M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Commuter Rail Culverts, Bridges & ROW Improvements (On-Call) (P0465)	Funding to support urgent repair and reconstruction needs on the Commuter Rail system.	Commuter Rail	Construction	\$5.4M	\$14.3M
Tunnel Rehabilitation (P0182)	Construction and professional services relating to tunnel repair and inspection.	Systemwide	Construction	\$0.0M	\$12.8M
Fenway Portal Flood Protection (P0117)	Addition of floodgates and large steel doors to the entrance of the Green Line tunnel near Fenway Station to prevent flooding. Includes updated pumping station and new cameras to monitor rising water levels.	Green Line	Construction	\$3.6M	\$32.3M
Emergency Bridge Repair (P0037)	Funding to support emergency bridge repairs on an on-call basis.	Systemwide	Construction	\$3.9M	\$27.0M
East Street Bridge Replacement (P0033)	Replacement of bridge carrying Franklin Line trains over East Street in Westwood.	Commuter Rail	Closeout	\$0.0M	\$15.6M
Beverly Drawbridge Rehabilitation (P0027)	Rehabilitation of the Beverly Drawbridge carrying the Newburyport/Rockport Line over the Danvers River. Includes upgrade of the approach spans and movable swing span, as well as repairs to concrete support piles and equipment.	Commuter Rail	Closeout	\$1.0M	\$36.7M
Savin Hill Underpass (P0023)	Stabilization of the Savin Hill Underpass carrying the Red Line beneath Savin Hill Avenue in Dorchester.	Red Line	Closeout	\$0.0M	\$3.6M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
North Station Draw 1 Bridge Replacement (P0018)	Replacement of North Station Draw 1 bridge structure and control tower. Includes expansion of bridge capacity from 4 to 6 tracks, expansion of station platform capacity from 10 to 12 tracks, and a pedestrian path across the Charles River.	Commuter Rail	Design	\$157.4M	\$573.8M
Merrimack River Bridge (P0014)	Rehabilitation, strengthening, and painting of the superstructure of the Merrimack River and Washington Street Bridges. Includes repairs to stone piers, substructure, scour countermeasures, and replacement of bearings.	Commuter Rail	Closeout	\$1.9M	\$87.8M
Bridges - Design (P0009)	Design funding to support the repair, rehabilitation, and replacement of bridges across the system.	Systemwide	Design	\$13.0M	\$35.4M
Emergency Bridge Design / Inspection & Rating (P0008)	Funding to support emergency design, inspection, and rating of bridges as needed.	Systemwide	Design	\$2.2M	\$27.8M
Gloucester Drawbridge Replacement (P0006)	Replacement of Gloucester Drawbridge on the Rockport Line. The new bridge will consist of a moveable bascule span with two independent barrels, two spans of precast concrete box beams, a new steel superstructure, and a new micro-pile abutment.	Commuter Rail	Construction	\$16.7M	\$100.4M
Tunnel Inspection Systemwide (R0074)	Ongoing inspection and rating of Red Line, Orange Line, Green Line, and Blue Line tunnels.	Systemwide	Design	\$17.1M	\$30.6M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

## Guideway, Signal, and Power Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Unit Substation Replacement Project (P1149)	Development of unit substation (USS) Design Guide and replacement of existing power and electrical equipment at unit substation locations (USS), including AC feeder disconnect switches.	Multimodal	Proposed	\$2.3M	\$2.3M
Rail Crossing Safety Upgrades (P1146)	Assessment, procurement, and testing of non-signalized protective devices to improve safety at open pedestrian crossings on the Commuter Rail system.	Commuter Rail	Proposed	\$1.0M	\$1.0M
Keolis Mechanical Parts (P1145)	Procurement of mechanical parts inventory to support Commuter Rail maintenance.	Commuter Rail	Proposed	\$32.1M	\$32.1M
Systemwide Signal Design Circuit Plans (P1141)	Development of new signal design circuit plans for all wayside cases and control point locations on all rapid transit and light rail lines. This will include both hard copy designs and digital copies maintained in an MBTA database.	Multimodal	Proposed	\$2.5M	\$2.5M
Braintree Line Track Replacement (P1133)	Design and construction for partial reconstruction of track and track support systems on the Braintree Branch of the Red Line. This is part of a series of Red Line track replacement projects.	Red Line	Proposed	\$1.5M	\$1.5M
Ashmont Branch Track Replacement (P1132)	Design and construction for partial reconstruction of track and track support systems on the Ashmont Branch of the Red Line. This is part of a series of Red Line track replacement projects.	Red Line	Proposed	\$5.0M	\$5.0M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Restraining Rail Fasteners Upgrade (P1126)	Upgrade of all restraining rail fasteners on the transit track system with a more resilient fastener system.	Multimodal	Proposed	\$1.5M	\$1.5M
South Boston to Forest Hills Duct Bank Replacement (P1114)	Replacement of duct banks and cables which carry AC power from the South Boston power complex to Forest Hills.	Orange Line	Proposed	\$16.2M	\$16.2M
Bus Priority Project Construction (P1113)	Funding to support construction of bus priority infrastructure. This may include side or center-running bus lanes, transit signal priority, pavement markings, and stop upgrades.	Bus	Proposed	\$11.4M	\$11.4M
Bus Network Redesign Support (P1108)	Design and construction of bus priority infrastructure, including bus lanes, queue jumps, transit signal priority, and other treatments along corridors identified as priorities in the Bus Network Redesign process.	Commuter Rail	Proposed	\$7.0M	\$7.0M
Traction Power Substation Upgrades (P1104)	Complete replacement of electrical systems and structural, mechanical, and plumbing improvements at nine aging traction power substations (TPSS). This scope also includes a TPSS Design Guide to standardize future improvements.	Multimodal	Proposed	\$7.2M	\$7.2M
Overhead Contact System Relocation for Type 10 Vehicles (P1102)	Assessment of overhead contact system (OCS) on the Green Line to identify areas out of compliance with the conceptual Type 10 design. This project will also establish systemwide standards for the location of the OCS and realign the OCS as necessary.	Green Line	Proposed	\$5.0M	\$5.0M

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Cabot Yard Ductbanks (P1100)	Replacement of traction power and negative return ductbanks within Cabot Yard. This project will also include the replacement of two trailers at Cabot which house MBTA Electricians and Foremen.	Red Line	Proposed	\$1.0M	\$1.0M
Davis Square Signal Improvements and TSP (P1023)	Procurement and installation of new traffic signal equipment throughout Davis Square, including the incorporation of transit signal priority (TSP) technology to improve bus movements through the intersection.	Bus	Design	\$0.2M	\$0.2M
Malden/Everett Main Street Transit Signal Priority (P1006)	Local match funding for a Community Connections project funded through the Boston Region MPO. This project will install transit priority infrastructure along Main Street in Malden and Everett	Bus	Planning	\$0.0M	\$0.0M
Blue Hill Ave Transit Priority Corridor (P1005b)	Local match funding for a FY21 RAISE grant awarded by USDOT to the City of Boston, supporting the addition of center-running dedicated bus lane on Blue Hill Avenue in Dorchester and Mattapan to support faster bus service.	Bus	Pre-Design	\$5.0M	\$5.0M
Columbus Ave Bus Lane Phase 2 (P1005a)	Funding for Phase 2 of the Columbus Avenue center-running bus lane in Boston. This phase of the project extends the bus lane north from Jackson Square to Ruggles Station.	Bus	Design	\$2.8M	\$3.0M
Bus Lanes and Other Bus Priority (P1005)	This program provides local match funding for potential bus lane projects.	Bus	Planning	\$22.0M	\$22.0M

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Keolis General & Administrative Contract (P1004)	Funding for required general and administrative fees paid annually to Keolis for maintenance and operation of the Commuter Rail system.	Commuter Rail	Construction	\$25.7M	\$31.2M
Shared Streets/ Malden Centre Street (P0953g)	New dedicated bus and bike lanes on Centre St between Main St and Malden Center Station, and protected bike lanes on Eastern Ave between Main St and Franklin St in the City of Malden.	Bus	Construction	\$0.2M	\$0.5M
Shared Streets/ Brookline Gateway East (P0953f)	Conversion of one parking lane in each direction to bus-only lanes at Brookline Gateway East. Includes bus lane painting, signage, and traffic signal priority equipment.	Bus	Construction	\$0.0M	\$0.4M
Shared Streets/ Bus Shelters and Bus Boxes (P0953e)	Procurement and installation of five bus shelters at designated bus stops in Boston and Medford as well as the installation of pavement markings that designate bus stop zones at multiple bus stops systemwide.	Bus	Construction	\$0.0M	\$0.2M
Shared Streets/ Chelsea-Revere (P0953d)	New painted bus lane on Broadway in the southbound direction from City Hall towards Chelsea city line.	Bus	Construction	\$0.2M	\$0.2M
Shared Streets/ Washington St Boston Washington St Somerville and Western Ave Lynn (P0953c)	Design and construction of three bus lane corridors on Washington St (Somerville), North Washington St (Boston), and Western Ave (Lynn). Includes lane pavement markings, flex posts, signage, traffic signals and transit signal priority.	Bus	Construction	\$0.1M	\$0.7M

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Shared Streets/ Park Drive (P0953b)	Construction of signalized pedestrian crossing on Park Drive to provide a safe and accessible connection between Bus service and Green Line. Includes curb ramps, median refuge, signage, pavement markings and three rectangular rapid flashing beacons.	Bus	Construction	\$0.0M	\$0.2M
Shared Streets/ Washington St. Roslinda (P0953a)	Enhancements to peak-only shared bus/bike lane southbound on Washington St. and northbound around Adams Park in Roslindale Village. Includes new curb-extended bus stops, shelters, sidewalks, and curb ramps on Poplar and Corinth Streets.	Bus	Construction	\$0.0M	\$0.5M
Rail Transformation - Early Action Items (P0940)	Various early action efforts to support future Rail Transformation. Includes addition of double tracks, interlockings, platforms, and turnbacks on the Greenbush, Middleboro, Fitchburg, Haverhill and Lowell Lines and key stations.	Commuter Rail	Planning	\$9.5M	\$10.0M
Blue Line Signal Improvements (P0938)	Improvements to signals and related infrastructure on the Blue Line.	Blue Line	Planning	\$11.5M	\$12.0M
D Branch Pedestrian Crossing Speed Restriction Removal (P0926)	Evaluation and design of pedestrian crossing solutions for the Green Line's D Branch between Webster and Houghton Conservation Areas comprising a crossing gate and a pedestrian underpass or overpass to increase pedestrian safety and vehicle speeds.	Green Line	Pre-Design	\$0.5M	\$0.6M

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B Branch Accessibility & Capacity Improvements (P0924)	Track realignments, accessibility improvements, potential consolidation, and station and traction power upgrades along the Green Line B Branch, between Blandford St and Warren St stations.	Green Line	Planning	\$66.3M	\$220.9M
E Branch Accessibility & Capacity Improvements (P0923)	Improvements to surface track and stations on the E-Branch of the Green Line, extending from the Northeastern Station portal to Heath Street Station.	Green Line	Pre-Design	\$85.7M	\$85.9M
Green Line Traction Power Upgrades for Increased Capacity (P0922)	Traction power upgrades on all Green Line branches to address DC power system requirements for the future Type 10 fleet.	Green Line	Pre-Design	\$9.0M	\$10.0M
Green Line Overhead Catenary System State of Good Repair (P0919)	Repair and replacement of traction power and catenary system components (hangers, crossarms, yokes, insulators, among others) throughout the Green Line.	Green Line	Pre-Design	\$13.9M	\$15.0M
Copley to Arlington Track Replacement (P0917)	Full-depth track reconstruction at Copley and Arlington Stations within eastbound and westbound pits to realign tracks. This work is intended to overcome delays caused by vehicles doors being jammed due to track conditions.	Green Line	Pre-Design	\$7.1M	\$8.1M
PTC Startup After Implementation (P0913)	Costs associated with the transition of the Positive Train Control (PTC) system from the system integrator (Hitachi) to the operator (Keolis).	Commuter Rail	Planning	\$6.1M	\$9.6M

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North Cambridge Yard Catenary Replacement (P0906)	Replacement of existing catenary components on North Cambridge Yard to increase maintenance efficiency and allow buses to easily berth in the yard improving system's performance and reliability.	Bus	Planning	\$1.4M	\$1.4M
Oak Grove Utility Feeders and Wellington XFMR Cable (P0900b)	Replacement of deteriorated AC power cables that supply power to the substation with a new duct bank and cable system. Also includes replacement of cable connections at Wellington Rectifier Transformer.	Orange Line	Design	\$1.4M	\$2.1M
Power Systems Reliability Program (P0900)	Repairs and replacement of electrical distribution infrastructure on facilities and transit systems on the Red and Orange Line. Includes AC and DC cables, generators, transformers, traction power, unit substations, conductors, and manholes.	Systemwide	Planning	\$26.9M	\$27.9M
Nubian Square Ductbank Replacement - Phase II (P0897)	Replacement of duct banks and manholes located in the Dudley Street and Warren Street area to be performed concurrently with the full-depth reconstruction planned under the City of Boston's Complete Streets Program.	Multimodal	Design	\$0.0M	\$3.5M
Tower 1 Interlocking Early Action Project (P0889)	Upgrade of interlocking components outside South Station to support Commuter Rail and Amtrak operations. This includes new signals, switches, track, and generators and is considered early action work for the South Station Expansion project.	Commuter Rail	Construction	\$71.1M	\$89.8M

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Haverhill Interlocking Improvements (P0880)	Installation of a new universal crossover at Franklin Street on the Haverhill Line.	Commuter Rail	Planning	\$0.6M	\$6.0M
Green Line E Branch Surface Improvements (P0879)	Full-depth track replacement on Green Line's E branch. Includes replacement of Northeastern's special trackwork and storage track, Longwood to Brigham Circle main line, Heath Street loop track, and Forsyth, Parker, and Wigglesworth's crossovers.	Green Line	Construction	\$8.9M	\$30.2M
Green Line C Branch Surface Improvements (P0878)	Full-depth track renewal and special trackwork on the C Branch of the Green Line. Includes replacement of ties and ballast at the St. Mary's St., Coolidge Corner, and Ayr Road crossovers.	Green Line	Construction	\$7.5M	\$27.8M
Green Line B Branch Infrastructure Improvements (P0874)	Full-depth track renewal and special trackwork on the Green Line B Branch. Includes track improvements between Naples crossover and Packards Corner, special trackwork at Washington and Cardinal crossovers, and 600ft of eastbound only improvements.	Green Line	Construction	\$0.0M	\$6.6M
CSX ROW Property Acquisition (P0869)	Acquisition of Milford Secondary right-of-way from CSX to ensure continued operation of the Franklin Line to Forge Park.	Commuter Rail	Planning	\$13.0M	\$13.0M

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Commuter Rail Track State of Good Repair and Resiliency Program (P0862)	Various improvements to track infrastructure on the Commuter Rail system including interlocking upgrades, ledge cutting, and replacement of ties and switch timbers.	Commuter Rail	Construction	\$26.3M	\$37.7M
Commuter Rail Signal State of Good Repair and Resiliency Program (P0861)	Signal improvements on the Commuter Rail system including a north-side dispatch software system, systemwide signal and power upgrades, HLC upgrades on the Old Colony Line, and grade-crossing safety improvements.	Commuter Rail	Construction	\$24.9M	\$29.7M
Mattapan HSL Transformation (P0857)	State of good repair and accessibility improvements, power upgrades, and other infrastructure investments on the Mattapan Line.	Mattapan Line	Pre-Design	\$69.3M	\$114.5M
115KV Primary and Back-up Relay Replacement (P0847)	Replacement of outdated primary and backup relays at the MBTA's bulk power complex.	Systemwide	Planning	\$0.6M	\$0.8M
115KV Transformer Replacement Project (P0846)	Replacement of 3 transformers at the South Boston Power Complex which have reached the end of their useful life.	Systemwide	Construction	\$2.7M	\$5.8M
115KV Electro-Mechanical to Digital Relay Replacement (P0845)	Replacement of existing electro-mechanical relays with digital delays at 50 traction power substations systemwide.	Systemwide	Planning	\$0.5M	\$2.4M

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Traction Power Substation Control Battery Replacement (P0844)	Replacement of existing batteries at 50 traction power substations which have reached the end of their useful life.	Systemwide	Planning	\$0.5M	\$0.9M
Forest Hills to Roxbury Cable Replacement (P0843)	Replacement of medium voltage AC cable between the Forest Hills and Roxbury traction power substations.	Systemwide	Construction	\$1.7M	\$2.8M
Traction Power Substation FPE Circuit Breaker Replacement (P0842)	Replacement of 103 existing circuit breakers at 13 traction power substations throughout the system.	Systemwide	Planning	\$1.9M	\$2.1M
Systemwide Jumper Connections (P0841)	Systemwide repairs to electrical jumpers, wires, and welds across the Orange, Red, Blue, and Green Lines to minimize service delays and improve on-time performance.	Systemwide	Planning	\$1.9M	\$2.0M
Systemwide Switch Renewal (P0840)	Procurement of switch machines, rods, headblocks, and fastening hardware to be installed on the Orange, Blue, and Green Lines with a focus on major junctions, terminus locations, emergency interlockings, and yard entrance control.	Systemwide	Planning	\$0.8M	\$2.1M
Wayside Bearing Acoustic Monitoring/ Defect Detection (P0839)	Procurement and installation of wheel bearing acoustic monitoring and defect detection equipment on the Commuter Rail network.	Commuter Rail	Construction	\$0.1M	\$4.0M

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Commuter Rail Gas Switch Heater Conversions (P0827)	Procurement and installation of 65 switch heaters systemwide to prevent switch failures, reduce delays, and increase reliability and on-time performance during ice and snow conditions.	Commuter Rail	Construction	\$3.2M	\$5.0M
Auburndale Fiber Optic Cable (P0821)	Installation of fiber optic connection between the Cobble Hill dispatching center in Somerville and Auburndale Station on the Framingham/Worcester Line.	Commuter Rail	Construction	\$0.0M	\$1.7M
PRIIA-212 Amtrak Baseline Capital Charges (P0769)	Annual capital maintenance payments required per the MBTA's agreement with Amtrak.	Commuter Rail	Construction	\$0.0M	\$12.2M
E&M Power and Cable Replacement (P0762)	Replacement of power and cable infrastructure systemwide on an on-call basis.	Systemwide	Closeout	\$0.1M	\$1.3M
Blandin Ave Grade Crossing (P0752)	Partnership with MassDOT to perform improvements to the Blandin Avenue grade crossing on the Framingham/Worcester Line in Framingham.	Commuter Rail	Construction	\$0.0M	\$0.9M
Ductbank Relocation Acceleration (P0705c)	Urgent repair, replacement, and relocation of collapsed AC and DC cable duct banks and manholes to ensure safe working conditions at Copley Square (Boston), Comm Ave and Hospital Road (Brighton), and Mount Auburn St and Aberdeen Ave (Cambridge).	Systemwide	Pre-Design	\$9.1M	\$10.0M

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Power Systems Resiliency Program (P0705)	Replacement of damaged power cable duct banks that energize areas of the Red, Orange, Blue, and Green Line. Includes excavation, demolition, conduit replacement, manhole replacement, surface restoration, and power cable installation.	Systemwide	Construction	\$18.5M	\$50.3M
PRIIA-NEC Baseline Capital Charges (P0692)	Payments to Amtrak related to the use, dispatch, and maintenance of the Providence Line and Northeast Corridor between South Station and the Rhode Island border. Includes Attleboro Agreement payments as well as capital improvements.	Commuter Rail	Construction	\$96.1M	\$153.6M
Attleboro Agreement - NEC Capital Commitments (P0691)	Funding to support targeted maintenance of assets on the Attleboro Line between South Station and Rhode Island border, per the MBTA's agreement with Amtrak. Includes maintenance of tracks, structures, and systems.	Commuter Rail	Planning	\$7.1M	\$15.4M
South Boston to Forest Hills Duct Bank Replacement (P0688)	Replacement of duct banks and cables carrying AC power from the South Boston power complex to Forest Hills.	Orange Line	Design	\$0.8M	\$1.5M
Capital Maintenance Expenses - Power (P0687)	Funding to support a variety of power-related capital maintenance expenses systemwide.	Multimodal	Construction	\$0.4M	\$4.0M
E&M MOW Green Line Track Rehabilitation (P0686)	Rehabilitation of track elements on the Green Line to support continued reliability of the system.	Green Line	Construction	\$1.7M	\$7.6M

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Green Line Transformation (P0685)	Funds to support the Green Line Transformation (GLT) program, including construction and general management of more than 60 projects that seek to improve quality of service and focus on strategic planning for the Green Line.	Green Line	Planning	\$24.7M	\$48.3M
Orange Line Southwest Corridor Track Replacement (P0675)	Reconstruction of track and support systems on the Southwest Corridor of the Orange Line between Chinatown and Forest Hills Stations.	Orange Line	Pre-Design	\$22.7M	\$23.1M
Power Systems Capital Maintenance Phase II (P0674d)	Replacement, rebuilding, and renewal of AC/DC distribution cables, pumping motors, air compressors, evacuation fans, transit line overhead contact systems, standby power generation equipment, and fire and CNG alarm systems.	Systemwide	Construction	\$14.4M	\$28.8M
Maverick/Long Wharf Emergency Vent Fan Replacement (P0674c)	Replacement of existing tunnel emergency ventilation fans on the Long Wharf Vent Shaft located on the under-harbor tunnel between Aquarium and Maverick Stations to ensure systemwide state of good repair.	Blue Line	Planning	\$0.0M	\$0.4M
Systemwide Power Study (P0674b)	Development of a 15-year action plan for MBTA's power system (generation, transmission, and distribution) to ensure state of good repair, modernize assets and systems, improve resiliency, and enable the system's future expansion and capabilities.	Systemwide	Pre-Design	\$0.0M	\$0.8M

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Power Systems Capital Maintenance (P0674a)	Replacement of out of service AC & DC distribution cables and associated infrastructure, including asbestos abatement and underground utility locating services.	Systemwide	Construction	\$1.3M	\$6.5M
Power Systems Capital Maintenance (P0674)	Funding to support a variety of power investments that fall outside of the scope of routine preventative maintenance. Includes replacement of AC/DC distribution cables, overhead contact systems, and others.	Systemwide	Construction	\$25.0M	\$25.0M
Red Line Interlock Upgrades (P0654)	Replacement of all track and signal assets at the following Red Line Interlockings: Park Street, Harvard, Kendall, Ashmont Section 16, and Broadway. Includes tools, equipment, and a spot tamping machine to support capital improvements.	Red Line	Planning	\$11.5M	\$12.0M
On-Call Track II (P0648)	On-call construction services to support repair and reconstruction needs on the light and heavy rail systems.	Multimodal	Construction	\$1.0M	\$54.2M
MOW Systemwide CWR Replacement Project (P0642)	Replacement of selective jointed and continuously welded rail (CWR) on the Commuter Rail system to reduce rail breaks, track maintenance, signal issues, noise, vibration, and impacts to the rolling stock lifespan.	Multimodal	Construction	\$3.2M	\$8.0M
Lynn Station Direct Fixation Repairs Track 1 & Station Amenities (P0632)	Removal of existing tracks and concrete base for the installation of two new tracks on wooden ties at Lynn Commuter Rail Station. Includes land purchase in Lynn for project development.	Commuter Rail	Construction	\$0.0M	\$1.8M

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Commuter Rail Slippery Rail Mitigation Project (P0617)	Upgrades to Commuter Rail layover locations to add sanding capability to mitigate track's slippery conditions, improve traction and braking, and reduce delays in revenue service during fall and winter months.	Commuter Rail	Planning	\$0.0M	\$0.6M
Bury 100 Miles of Fiber Annually - Strategic Locations (P0612)	Installation of a buried fiber optic cable network for railroad vital systems, including signals, communications, and Positive Train Control (PTC) on Commuter Rail tracks systemwide.	Commuter Rail	Design	\$94.8M	\$102.1M
Blue Line Master Plan (P0610)	Assessment of tunnels, drainage, structures, traction power, track, signals, vehicles, stations, resiliency, regional connectivity, accessibility, and code compliance on the Blue Line.	Blue Line	Planning	\$1.3M	\$1.4M
ATC Implementation - North Side Commuter Rail Lines (P0606)	Installation of Automatic Train Control (ATC) signal cab equipment to support full implementation of federally mandated Positive Train Control (PTC) systems on north-side Commuter Rail lines.	Commuter Rail	Construction	\$173.6M	\$416.8M
Green Line Central Tunnel Track and Signal Replacement (P0591)	Rehabilitation and upgrades to signal and track infrastructure within the Green Line Central Tunnel. Includes central instrumentation houses and signal, track, and power systems at Copley, Park Street, and Government Center.	Green Line	Design	\$116.0M	\$120.0M
Blue Line Mechanical Trip Stops - Baseline Analysis (P0558)	Analysis of mechanical trip stop systems for potential implementation on the Blue Line.	Blue Line	Pre-Design	\$1.4M	\$2.0M

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E&M MOW Systemwide Initiatives (P0555)	Renewal of assets in addition to preventative or predictive maintenance associated with approximately 4,000ft of full depth track replacement and 3,000 tie replacements on the Blue, Red, and Orange Lines. Includes materials and support services.	Systemwide	Construction	\$6.1M	\$33.0M
Keolis Capitalization Initiatives and Extra Work (P0553)	Annual costs related to capital maintenance activities required per the Keolis Operating Agreement. Work generally relates to switches, ties, track, rail grinding, timbers, and fencing.	Commuter Rail	Construction	\$95.0M	\$172.4M
On-Call Track III (P0516)	Construction-related services to support urgent track construction needs on an on-call basis for the Red and Orange Line. Includes tie replacement, concrete work, signal bonding, and other related work.	Multimodal	Construction	\$65.2M	\$69.6M
Green Line (Non-GLX) Grade Crossings (On-Call) (P0468)	Reconstruction and replacement of 27 roadway grade crossings on the Green Line B, C and E Branches and the Mattapan High Speed Line. Includes track work, road work, pedestrian ramps, and traffic management during construction.	Green Line	Construction	\$11.5M	\$32.1M
Walpole Station Interlocking / Crossing (P0452)	Design for rehabilitation of the interlocking outside Walpole Station on the Franklin Line.	Commuter Rail	Design	\$0.0M	\$0.4M

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NNEPRA- Haverhill Line Improvements (P0421)	Rail replacement along the Haverhill Line in collaboration with the Northern New England Passenger Rail Authority to support Downeaster service.	Commuter Rail	Closeout	\$0.2M	\$11.4M
Green Line Train Protection (P0370)	Procurement and installation of on-board and wayside equipment for a train protection and information system on the Green Line to mitigate red signal violations, train-to-train collisions, derailments, and intrusions into work zones.	Green Line	Construction	\$168.4M	\$212.9M
Energy Efficiency (P0290)	Funding to support energy upgrades across the system, including construction of a 750kW wind turbine at the Bridgewater Remote Track location in Bridgewater, MA.	Commuter Rail	Construction	\$7.8M	\$25.0M
Red Line Cable Replacement (P0286)	Cable replacement to improve power infrastructure reliability on the Red Line.	Red Line	Construction	\$4.3M	\$29.0M
Signal Program - Red/Orange Line (P0285)	Replacement and upgrade of signal equipment on the Red and Orange Lines. Includes renewal of track circuit modules using latest digital audio frequency technology and replacement of wayside equipment on the Orange Line south of Haymarket.	Red / Orange Line	Construction	\$240.5M	\$289.1M
Signal Program - Green Line (P0284)	Construction of new signals room at Copley Station to support Green Line operations.	Green Line	Construction	\$1.3M	\$6.0M
Green Line Central Tunnel Signal - 25 Cycle (P0283)	Replacement of 25Hz track circuits with 100Hz track circuits in the Green Line central tunnel. Includes replacement of track circuit cable, trough, messenger, cases, relays, rectifiers, and signal power equipment.	Green Line	Closeout	\$4.1M	\$17.0M

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Red Line DC Cable (P0281)	Improvements to cable infrastructure between Andrew and Kendall on the Red Line. Includes asset investigation, quantification of needs, implementation design, and replacement of approximately 27,500ft of cables, duct banks, and manholes.	Red Line	Construction	\$13.4M	\$28.5M
Short-Term Power Investments (P0280)	Funding to support a number of near-term priority investments in the MBTA power infrastructure.	Systemwide	Closeout	\$0.9M	\$10.0M
Orange Line DC Cable (P0279)	Improvements to cable infrastructure between Back Bay and North Station on the Orange Line. Includes asset investigation, quantification of needs, implementation design, and replacement of approx. 27,500ft of cables, duct banks, and manholes.	Orange Line	Pre-Design	\$8.8M	\$21.7M
Green Line Rail Grinding (P0275)	Rail grinding on the Green Line to remove irregularities from worn track and extend the useful life of track elements.	Green Line	Construction	\$0.1M	\$6.1M
Red Line Floating Slabs (Alewife-Harvard) (P0273)	Replacement of concrete slabs that "float" between the tracks and rubber disks that absorb sound and vibration from trains. This work involves demolishing old slabs, placing new rebar, and pouring new concrete.	Red Line	Construction	\$0.0M	\$42.8M
Beacon Junction Special Track Work Replacement (P0271)	Replacement of track elements at Beacon Junction on the Green Line C and D Branches.	Green Line	Closeout	\$0.2M	\$6.5M

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Worcester Line Track and Station Accessibility Improvements (P0261)	New third track and realignment of existing tracks on the Framingham and Worcester Commuter Rail lines between Weston and Framingham. Includes upgrades to Wellesley Farms, Wellesley Hills, Wellesley Square, and West Natick Stations.	Commuter Rail	Design	\$31.5M	\$43.5M
Commuter Rail - Systemwide Tree Removal (P0235)	Removal of aging trees and vegetation along the Commuter Rail right-of-way to ensure a clear line of sight for operators and reduce weather-induced safety risks.	Commuter Rail	Construction	\$2.9M	\$33.5M
Commuter Rail - Replace CP3 Crossover (P0224)	Replacement of track elements at the CP3 Crossover just west of Lansdowne Station on the Framingham/Worcester Line.	Commuter Rail	Construction	\$2.1M	\$3.0M
Franklin Double Track and Signal (P0214)	Extension of double track segments between Franklin and Norwood Central stations to create a continuous second track along the majority of the Franklin Line.	Commuter Rail	Construction	\$28.3M	\$67.8M
North Station Terminal Signal (P0212)	Upgrade of signal system at North Station including new microprocessor technology, nine new signal houses, two new crossovers, and the relocation of critical signal equipment above the 500-year floodplain.	Commuter Rail	Construction	\$25.3M	\$45.2M
On-Call Commuter Rail Track 2 (P0211)	On-call construction services to support track and rail repair, replacement, and upgrades.	Commuter Rail	Construction	\$2.9M	\$32.2M

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CPF-CAMP Property Taking for Access Road (P0209)	Acquisition of property at CPF-CAMP on the Fitchburg Line in Ayer to establish an access road for capital maintenance.	Commuter Rail	Planning	\$0.1M	\$0.4M
Walpole Lewis' Wye Signal Improvements (P0206)	Reconstruction of track and signal elements at Lewis' Wye near Walpole Station to support pilot service on the Foxboro Line.	Commuter Rail	Construction	\$0.2M	\$7.5M
Red Line Rehabilitation (P0184)	Rehabilitation of the Red Line tunnel infrastructure.	Red Line	Design	\$1.0M	\$11.7M
Red Line / Orange Line Infrastructure Improvements (P0157)	Renovation and expansion of the Wellington Maintenance Facility including inspection pit strengthening to prepare facility for new Orange and Red Line trains.	Red / Orange Line	Construction	\$91.3M	\$470.4M
Commuter Rail Positive Train Control (P0148)	Installation of Positive Train Control (PTC) train monitoring system to prevent unauthorized speeds and unexpected movement and reduce the risk of collision.	Commuter Rail	Construction	\$45.1M	\$444.2M
Systemwide Transformer Replacement, Phase 2 (P0147)	Replacement of 15 transformers at 7 MBTA power substations: Bennett (3 units), Shawmut (2 units), Quincy Adams (2 units), Reservoir (2 units), Riverside (2 units), Braintree (2 units), and Airport (2 units).	Systemwide	Construction	\$11.0M	\$26.1M

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SCADA Upgrades (P0146)	Upgrades to the Power Supervisory Control and Data Acquisition (SCADA) communication network from leased lines to the Security Wide Area Network (SWAN) to provide high-speed ethernet connection at traction power substations and unit substations.	Systemwide	Construction	\$5.5M	\$10.9M
Red Line Substation, Traction Power Upgrades (P0144)	Replacement of DC electrical equipment at 5 traction power substations along the Red Line, and improvements to control systems to add automation technology known as System Automation System (SAS).	Red Line	Closeout	\$1.6M	\$21.7M
Traction Power Substation Phase 3 & 4 (P0143)	Funding to support a number of upgrades to traction power substations supporting MBTA transit service.	Systemwide	Planning	\$25.5M	\$31.0M
Orange Line Traction Power Upgrade (P0139)	Major renovation of 4 aging Orange Line power substations that includes complete replacement of the traction power electrical systems as well as minor structural, mechanical, plumbing, and electrical repairs.	Orange Line	Construction	\$25.6M	\$68.3M
Fitchburg Line Small Starts - Track / Signal / Stations (P0083)	Track, signal, and station improvements on the Fitchburg Line supported by federal Small Starts grant funding.	Commuter Rail	Closeout	\$0.0M	\$149.2M

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Green Line D Branch Track and Signal Replacement (R9593)	Replacement of track (Brookline Hills to Riverside) and signal system (Reservoir to Riverside) on the Green Line D Branch. Includes new switches, signals, cables, cable hanging system, power supply, crossovers, pedestrian crossings, and truck pads.	Green Line	Construction	\$0.0M	\$105.6M
Blue Line PLC Replacement (R0132a)	Replacement of Programmable Logic Controllers (PLCs) at various locations on the Blue Line.	Blue Line	Planning	\$0.2M	\$0.5M
E&M Capital Maintenance Improvements (R0132)	Funding to support a variety of capital maintenance efforts systemwide.	Systemwide	Construction	\$1.6M	\$2.5M

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## Maintenance and Administrative Facilities Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Rochester Facility Vehicle Acceptance Support (P1163)	Infrastructure improvements to the Rochester Commuter Rail facility in Wareham to enable the testing and commissioning of new South Coast Rail coaches.	Commuter Rail	Construction	\$14.0M	\$14.0M
Rail WiFi (P1156)	Addition of wireless access points to rail maintenance facilities and storage yards to support better tracking of maintenance issues and activities and allow maintenance staff to use tablets for tracking and inspection.	Systemwide	Proposed	\$5.6M	\$5.6M
Commuter Rail Facilities State of Good Repair (P1144)	Funding to support Commuter Rail facilities improvements including design support contracts, roof and roof equipment replacement, WiFi and IT infrastructure, fluid systems, and maintenance of way facilities.	Commuter Rail	Proposed	\$78.7M	\$78.7M
Charlestown Campus State of Good Repair (P1136)	Improvements to address deficiencies in code compliance, occupant safety, and state of good repair in 12 buildings at the Charlestown campus. This work is informed by campus facility assessments conducted in 2020 and 2021.	Bus	Proposed	\$9.0M	\$9.0M
Capital Spares Warehouse (P1135)	Lease of a warehouse to serve as a central repository for capital spares.	Systemwide	Proposed	\$10.0M	\$10.0M
Cabot Signal Relay Shop Upgrades (P1134)	Improvements to the Signal Repair Facility located in Cabot Yard including electrical HVAC, and safety systems as well as concrete walkways and stairs.	Red Line	Proposed	\$4.1M	\$4.1M

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E&M Facilities Safety and Reliability Capital Expenses (P1128)	Funding to support a variety of improvements to facilities to be carried out by Transit Facilities Maintenance. Includes replacement of compressed air systems, pump systems, crane and hoist systems, HVAC, exhaust systems, and others.	Systemwide	Proposed	\$1.6M	\$1.6M
E&M Facilities Standpipe Capital Expenses (P1127)	Upgrade of fire suppression systems through the replacement of existing hydrants and installation of a dry fire standpipe system at Cabot Yard, Wellington Carhouse, and Orient Heights Carhouse.	Multimodal	Proposed	\$2.2M	\$2.2M
Systemwide Pavement Repairs (P1118)	Asphalt and concrete repairs to sidewalks and roadways at busways, rail yards, and various other smaller locations. Locations are prioritized based on safety and operational needs, and will include both Mattapan and the Charlestown Bus Facility.	Systemwide	Proposed	\$5.0M	\$5.0M
Systemwide Fire Suppression Systems Repairs (P1117)	Replacement and upgrade of fire suppression systems including hydrants, standpipes and sprinkler systems systemwide.	Systemwide	Proposed	\$11.0M	\$11.0M
Job Order Contracting (P1112)	On-call repair work at stations and facilities to be performed by several small contractors as needed. Specific scope is unknown at this time but projects will consist of minor repairs that do not require design and engineering approvals.	Systemwide	Proposed	\$2.3M	\$2.3M

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Facilities Improvements On-Call (P1111)	Small to medium-sized facility repairs and improvements on an on-call basis. Work takes place at facilities across the system and is prioritized based on safety and operation need.	Systemwide	Proposed	\$7.0M	\$7.0M
Facilities - Future of Work Fit-Out/ Construction (P1110)	Retrofitting of existing MBTA office space to align with the Future of Work/Hybrid Work environment. Anticipated locations are 10 Park Plaza, 45 High Street, and Charlestown Buildings 2 and 3.	Systemwide	Proposed	\$10.0M	\$10.0M
Wellington Maintenance Facility IT/Communications Upgrade (P1106)	Rehabilitation of the communications rooms at Wellington Maintenance Facility in an effort to provide streamlined, uninterrupted service and optimize the communications network.	Orange Line	Proposed	\$1.2M	\$1.2M
Reservoir Yard and Non-Revenue Track Optimization and Reconfiguration (P1103)	Reconfiguration of various track elements at Reservoir including: the lower west yard, East/West Wye, Chestnut Hill Avenue connection, B-Branch connection, and non-revenue track around Cleveland Circle.	Green Line	Proposed	\$28.8M	\$30.5M
Lake Street Complex Demolition and Reconfiguration (P1101)	Demolition of the Lake Street facility and reconfiguration into an expanded yard. The site will be designed to maximize train storage, streamline yard operations, and eliminate a sharp curve in anticipation of the larger Type 10 light rail fleet.	Green Line	Proposed	\$6.6M	\$29.3M
HVAC Inspection and Evaluation (P1022)	Systemwide inspection and evaluation of HVAC systems.	Systemwide	Planning	\$0.8M	\$0.9M

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Charlestown Facade Investigation & Repairs (P1018)	Assessment and renovation of brick façade at the Charlestown bus garage.	Bus	Planning	\$0.6M	\$0.6M
Office/Facility Renovations - 10 Park Plaza Accessible Bathroom (P1015a)	Construction of an accessible bathroom at 10 Park Plaza administrative offices.	Systemwide	Construction	\$0.5M	\$1.0M
Future of Work - 10 Park Plaza Leasehold Improvements (P1015)	Funding to support leasehold improvements at 10 Park Plaza administrative offices.	Systemwide	Construction	\$6.0M	\$9.0M
Green Line Extension Vehicle Maintenance Facility Modifications & Upgrades (P1011)	Design and installation of a new hoist at the Green Line Extension (GLX) Vehicle Maintenance Facility to accommodate the future Type 10 fleet.	Green Line	Planning	\$12.0M	\$12.4M
Riverside Vehicle Maintenance Facility Modifications & Upgrades (P1010)	Upgrades to existing hoists, pits, and mezzanines at the Riverside Vehicle Maintenance Facility to accommodate the future Type 10 fleet.	Green Line	Planning	\$49.4M	\$49.4M
Facility Circulation Safety Improvements (P1003)	Assessment of vehicular and pedestrian circulation at MBTA bus facilities, and the implementation of necessary improvements to enhance employee safety.	Bus	Design	\$13.2M	\$15.5M

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Arborway Bus Operators Trailer Replacement (P1002)	Installation of permanent modular buildings at Arborway to replace existing temporary trailers that have exceeded their useful life.	Bus	Planning	\$1.4M	\$1.5M
CRMW Wastewater Treatment Plant Compliance Program (P0955)	Funding to support wastewater treatment at the MBTA Commuter Rail Maintenance Facility in Somerville.	Commuter Rail	Planning	\$1.7M	\$4.7M
Future Regional Rail Layover Planning (P0952)	Planning, design, environmental and real estate due diligence, and construction work for a new Commuter Rail layover facility. Includes operational and space needs assessment, design alternatives, and property prospection.	Commuter Rail	Planning	\$69.5M	\$70.3M
Cabot Facility Flood Mitigation (P0950)	Emergency repairs due to flooding at Cabot Maintenance Facility. Includes clean-up and restoration of Cabot Yard and replacement of the substation transformer, compressors and ATS switch due to a flooded manhole.	Red Line	Construction	\$0.5M	\$3.2M
Bus Facility Interim Improvements (P0942)	Upgrades to lighting, drainage, paving, locker and break rooms, and other components at bus facilities as part of the MBTA's commitment to Local 264. Includes replacement of the overhead doors at Albany Garage to increase height clearance.	Bus	Construction	\$65.3M	\$81.5M

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Green Line Yards - Track Upgrades (P0925)	On-call services for assessment and maintenance of trackwork (demolition, repairs, and installation of new tracks and components) to ensure a state of good repair at the Green Line's Reservoir, Riverside, and Lake Street Yards.	Green Line	Pre-Design	\$15.0M	\$15.0M
Green Line Type 10 Dedicated High-Speed Test Track (P0921)	Assessment and design to support the creation of a dedicated high-speed test track for the future Green Line Type 10 fleet. Construction of this track would accelerate testing and limit impacts to revenue service.	Green Line	Pre-Design	\$2.3M	\$2.3M
Green Line Maintenance Facilities and Yards (P0920)	Assessment and design for improvements to Reservoir, Riverside, Lake Street, and GLX maintenance facilities and yards needed to support the future Type 10 fleet. Includes infrastructure, testing, assembly and maintenance considerations.	Green Line	Pre-Design	\$7.3M	\$10.0M
Transit Facilities Capital Maintenance (P0914)	Systemwide replacement and improvements of air, sewer and exhaust systems, bus lifts, boilers, HVAC components, leaks, cracks, cranes, among others in facilities that support revenue service and vehicle maintenance.	Systemwide	Planning	\$1.9M	\$2.5M
Traction Power Substation Epoxy Floor Replacement (P0905)	Replacement of 30 epoxy floors designed to isolate high currents used to provide power to DC traction service to minimize risks and ensure personnel safety.	Systemwide	Planning	\$1.0M	\$1.0M

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Green Line Type 7 Flange Lubricator (P0903)	Installation of flange lubricators on the Green Line Type 7 fleet to reduce wear to vehicles' wheel flanges and the system's rails.	Green Line	Planning	\$0.3M	\$0.7M
Haverhill Layover Facility Relocation (P0865)	Relocation of the Bradford Layover facility on the Haverhill Line.	Commuter Rail	Design	\$4.2M	\$5.2M
South-Side Commuter Rail Maintenance Facility (P0863)	Assessment and design for a new Commuter Rail maintenance and layover facility at Readville. Includes design for future construction of multiple maintenance bays within Yard 1 and Upper Yard 2.	Commuter Rail	Design	\$6.9M	\$9.4M
South Station Office Space Restoration (P0838)	Restoration of administrative office space at South Station.	Commuter Rail	Construction	\$0.1M	\$0.2M
Warehouse & Garage Stockroom Security (P0764)	Security improvements to warehouse and garage stockroom facilities.	Systemwide	Closeout	\$0.0M	\$0.8M
Transit Facility Maintenance Program (P0763)	Funding to support various ad hoc improvements to MBTA transit facilities.	Systemwide	Construction	\$0.0M	\$2.0M

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Codman Yard Expansion and Improvements (P0679)	Improvements to Codman Yard including in-kind replacement of existing infrastructure and expansion of storage capacity to support the new Red Line fleet.	Red / Orange Line	Design	\$94.7M	\$98.7M
Bus Maintenance Wireless Installation (P0673d)	Systemwide bus garage WiFi installation. Includes facility heat mapping, definition of mesh network coverage mode, equipment installation, and testing, validation, and activation of WiFi systems.	Bus	Construction	\$0.2M	\$1.0M
North Cambridge Bus Facility Modernization (P0671c)	Renovation of North Cambridge facility to support conversion to battery electric bus (BEB) fleets.	Bus	Design	\$25.0M	\$25.0M
Arborway Bus Facility - Design Funding (P0671b)	Design funding to support the construction of a new Arborway bus facility to accommodate battery electric bus (BEB) infrastructure.	Bus	Pre-Design	\$36.0M	\$36.0M
Quincy Bus Facility Modernization (P0671a)	Relocation and replacement of the Quincy bus maintenance facility. The new, modernized facility will expand capacity and include the infrastructure necessary to support the MBTA's first battery-electric bus (BEB) fleet.	Bus	Construction	\$326.6M	\$402.1M
Bus Facility Modernization Program (P0671)	Initial planning and design for the replacement or rehabilitation of MBTA bus facilities and addition of battery electric bus (BEB) infrastructure.	Bus	Pre-Design	\$62.9M	\$96.4M
Wastewater Discharge Infrastructure (P0670)	Systemwide program to inventory, assess, and plan for the rehabilitation of the MBTA's underground pump infrastructure.	Systemwide		\$1.5M	\$3.4M

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Upgrade HVAC & Exhaust Systems at Widett Circle (P0668)	Upgrades and replacement of HVAC and exhaust systems at Boston Engine Terminal (BET) in Somerville and the Widett Service and Inspection (S&I) Facility in Boston.	Commuter Rail	Construction	\$0.0M	\$2.5M
Systemwide Storage Tank Compliance Program (P0663)	Upgrade of systemwide storage tanks, pumps, fueling and tracking systems, as well as other elements of the MBTA's overall tank infrastructure.	Systemwide	Construction	\$1.9M	\$3.0M
Systemwide Facility Needs and Programming Study (P0661)	Comprehensive analysis of MBTA facilities to prioritize improvements. This project is part of a broader systemwide facility improvement program to achieve a state of good repair at the maintenance and operations facilities.	Systemwide	Pre-Design	\$0.7M	\$1.0M
Rochester Improvements (P0657)	Wheel truing machine, track and layover modifications, inspection pit, lighting upgrades, fire suppression systems, and HVAC improvements at the Rochester Commuter Rail Facility in Wareham, MA.	Commuter Rail	Construction	\$0.0M	\$6.0M
Southside Service & Inspection Facility Train Wash System (P0640)	Upgrade of Commuter Rail washing systems at Widett Service and Inspection (S&I) Facility in Boston to improve filter wash system and water drainage disposal.	Commuter Rail	Design	\$0.0M	\$1.7M
Enterprise Fuel Management System (P0634)	Enterprise fuel management solution (FMS) for automated and controlled fuel issuances to systemwide fleet and equipment and management of central fueling infrastructure. Includes upgrades, improvements, and repairs to existing fuel sites.	Bus	Construction	\$3.7M	\$7.5M

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Green Line and Blue Line Wheel Scanners (P0624)	Assessment of specifications and locations to install a Wheel Scanner System on the Green and Blue Lines to verify accuracy of wheel profiles and streamline maintenance efforts. Includes system procurement, installation, and testing.	Multimodal	Construction	\$1.1M	\$2.1M
Fluid Dispensing System Upgrades (P0622)	Replacement and upgrade of fluid, fuel filling, and dispensing equipment at Boston Engine Terminal in Somerville and Widett S&I Facility in Boston to increase maintenance efficiency at locations where locomotives are serviced and fueled.	Commuter Rail	Construction	\$0.3M	\$4.0M
Charlestown Campus Study and Early Action Items (P0616)	Assessment of existing conditions and future requirements to develop a master plan for the Charlestown campus. Includes replacements and upgrades to rail shop boiler, steam pipes, sprinkler system, fencing, and environmental cleanup procedures.	Systemwide	Pre-Design	\$1.0M	\$3.0M
Billerica MOW Repair Facility (P0609)	Design and construction of a new maintenance-of-way equipment facility, storage yards, and tracks to provide yard access in Billerica to support Green Line extension project and maintenance needs of the new fleet.	Commuter Rail	Design	\$1.7M	\$5.0M
45 High Street Master Plan and Systems Resiliency (P0603)	Design of master plan to increase systems resiliency at the 45 High Street facility which houses the Operation Control Center and Data Center. Includes resiliency plans for future power and communications systems located on site.	Systemwide	Pre-Design	\$7.0M	\$8.3M

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Sprinkler & Fire Life Safety Systems - Transit Facilities (P0564)	Professional and construction services for the assessment of fire sprinkler systems, identification and design of replacements, and demolition and construction activities necessary to implement improvements.	Systemwide	Design	\$14.8M	\$21.0M
Pawtucket Layover Improvements (P0515)	Improvements to the Pawtucket Layover Facility including additional roof clearance for catenary installation, additional track pit on track 5, sanitary facilities, and welding equipment for repairs.	Commuter Rail	Design	\$0.6M	\$10.9M
Wellington Yard Complete Upgrade (P0514)	Full rebuild of Wellington Yard including upgrades to track, power, signal, communications, drainage, and other yard elements.	Orange Line	Construction	\$46.5M	\$96.1M
Cabot Yard Complete Upgrade - Owner's Rep Services (P0512a)	Oversight, management, and construction related services to for track, signal, and traction power improvements at Cabot Yard.	Red Line	Construction	\$1.1M	\$1.1M
Cabot Yard Complete Upgrade (P0512)	Full rebuild of Cabot Yard including upgrades to track, power, signal, communications, drainage, and other yard elements.	Red Line	Construction	\$116.5M	\$162.2M
Rail and Bus Lift Upgrade Program (P0494)	Procurement of lifts for bus and rail cars to enable preventive maintenance work and associated repairs to revenue fleet vehicles.	Bus	Construction	\$1.6M	\$10.0M
Iron Horse Operations Control Center (P0472)	Construction of new operations control center in Billerica to support up to 38 dispatchers for north-side Commuter Rail and Pan Am freight operations.	Commuter Rail	Construction	\$4.7M	\$44.4M

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Wheel Truing Machine Replacement Project (P0407)	Procurement of wheel truing machine to support Commuter Rail operations and maintenance.	Commuter Rail	Construction	\$0.6M	\$4.2M
Wachusett Extension - Layover Facility Equipment (P0401)	Procurement and installation of layover facility equipment to support Fitchburg Line extension to Wachusett.	Commuter Rail	Closeout	\$0.0M	\$0.2M
Braintree and Codman Yard Security Upgrades (P0390)	Implementation of security improvements at Braintree Station and Codman Yard on the Red Line.	Red Line	Closeout	\$0.0M	\$1.2M
Various Remediation Projects (P0297)	Funding to support remediation efforts at various maintenance and operational facilities.	Systemwide		\$0.0M	\$0.6M
Neponset Midday Layover Electric Plug-ins (P0258)	Installation of electric plug-ins to supply power to Commuter Rail fleets during midday layover periods at Readville.	Commuter Rail	Design	\$0.0M	\$3.9M
Retrofit Building for HVAC Shop at BET (P0231)	Installation of roof, siding, roll up doors for storage shed, and interior and exterior shelving to supplement existing work performed at the HVAC Shop at Boston Engine Terminal, the MBTA's main Commuter Rail facility.	Commuter Rail	Construction	\$0.1M	\$4.4M
Facility Roof Replacement (P0126)	Replacement of roofs at 13 MBTA facilities and on-call contract to support systemwide roof repairs. This project also includes verification of structural capacity and code review to provide modifications if needed.	Systemwide	Construction	\$31.6M	\$52.5M

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Facility On-Call (P0112)	Facilities improvements related to asphalt repairs, general engineering services, and the reconstruction of the Reservoir Station Busway with new sidewalks, pedestrian ramps, and crosswalks.	Systemwide	Construction	\$0.0M	\$27.2M
Riverside Car House Work Platforms (P0107)	Construction of four work platforms and other renovations at Riverside Car House.	Green Line	Closeout	\$0.0M	\$4.1M
Everett Bus - Flowfill Repairs (P0106)	Floor slab maintenance to support undermined foundations by filling crawl space with air-entrained cellular concrete to support the slab and performing required environmental remediation by capping contaminated soil below the slab.	Bus	Construction	\$0.0M	\$13.9M
Charlestown Bus - Seawall Rehabilitation (P0104)	Stabilization of the Mystic River shoreline and replacement of existing seawall to protect Charlestown Bus Facility from flooding. Includes a collaboration with Massachusetts DCR to build a multi-use public path along the seawall.	Bus	Construction	\$0.3M	\$43.7M
45 High Street - Data Center Upgrades (P0097)	Data server upgrades, additional workspace, renovations to Fire Command Center and Security Desk, infill of basement holes carrying train power cables, replacement of actuators and fire dampeners, and installation of HVAC and transformer.	Systemwide	Construction	\$0.0M	\$13.7M
10 Park Plaza - Data Center Upgrades (P0096)	Upgrades to data center at 10 Park Plaza administrative offices.	Systemwide	Closeout	\$0.0M	\$1.0M

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# Passenger Facilities Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
High Priority Stations Accessibility Improvements Program (P1150)	Accessibility improvements at several high priority stations throughout the system. This includes but is not restricted to high-level platforms, grade crossing and track upgrades, stairs, ramps, wayfinding, and elevators.	Systemwide	Proposed	\$10.0M	\$10.0M
Systemwide Fire Alarm Upgrades (P1140)	This project will provide major renovations to aging fire alarm systems at Alewife, Beachmont, Davis, Harvard, Porter, North Quincy, Wellington Tower, and Charlestown Bus Wash and Repair.	Systemwide	Proposed	\$3.5M	\$3.5M
Emergency Power and Lighting (P1137)	Improvements to power and lighting systems at 15 stations with identified deficiencies.	Multimodal	Proposed	\$3.0M	\$3.0M
Wonderland Garage PVC Conduit Replacement (P1121)	Replacement of PVC conduit with Rigid Galvanized Steel (RGS) conduit in designated areas at Wonderland, per State Electrical and Building Inspector guidance.	Blue Line	Proposed	\$5.1M	\$5.1M
Urgent Response On-Call - Stations and Facilities (P1120)	On-call contract to respond to immediate and urgent safety sensitive issues systemwide. This includes facility deterioration posing immediate danger of passenger or employee injury.	Systemwide	Proposed	\$1.5M	\$1.5M
Bus Stop Accessibility Improvements (PATI Phase 3) (P1109)	The Plan for Accessible Infrastructure (PATI) project addresses bus stops that are unsafe or have significant barriers to accessibility. This phase will address safety and accessibility at 275 remaining critical bus stops.	Bus	Proposed	\$3.0M	\$3.0M

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Lynn Parking Garage Decommissioning (P1025)	Decommissioning of the closed Lynn Station parking garage.	Commuter Rail	Pre-Design	\$11.0M	\$11.0M
Systemwide Facility Needs (P1024)	Funding to support a variety of facility improvements to address identified needs.	Systemwide	Pre-Design	\$10.0M	\$10.0M
Short Term Accessibility Improvements - FTA Compliance Actions (P1009)	Addresses ADA compliance at up to 14 street level stations on the Green Line B and C branches.	Green Line	Planning	\$56.5M	\$57.5M
Systemwide Bike Racks (P1007)	State of good repair improvements to bike parking locations across the system, as well as upgrades to access technology and Pedal and Park features.	Systemwide	Design	\$0.2M	\$0.3M
Attleboro Station Improvements (GATRA) (P0970)	Platform reconstruction, repair of stairs and ramps, and path of travel improvements at Attleboro Station on the Providence Line. Includes collaboration with GATRA to support improvements to the station area.	Commuter Rail	Design	\$1.2M	\$1.7M
Route 128/University Park Garage Improvements (P0951)	Restoration of Route 128/University Park Station Parking Garage in Westwood. Includes new head house, stair handrails and doors, exterior stair tower, and repairs/ waterproofing of cracks, shear connectors, joint sealants, and beams.	Commuter Rail	Construction	\$9.0M	\$17.0M

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Central Square Station Accessibility Improvements (P0929)	Design for enlargement of outbound elevator and addition of two new elevators at Central Square Station to ensure redundancy. Includes power and wayfinding upgrades, areas of refuge, station brightening, and state of good repair improvements.	Red Line	Design	\$2.3M	\$4.8M
Nubian Square Station Accessibility and Operational Improvements (P0915)	Design of accessible passenger platforms at Nubian Station to reverse direction of MBTA buses and leverage City of Boston's street network improvements for increased service efficiency. Includes signals, striping, and curb modifications.	Bus	Design	\$1.0M	\$1.0M
Green Line E Ink Sign Deployment (P0910)	Installation of solar-powered, electronic ink (E Ink) screens at up to 32 surface-level Green Line stations to provide riders with in-station real-time arrival information.	Green Line	Pre-Design	\$1.9M	\$3.4M
Blue Line Station Studies (P0901)	Funding to support initial planning for station improvements on the Blue Line.	Blue Line	Planning	\$8.0M	\$8.0M
Harvard Station Brightening and Improvements (P0895)	Station brightening and related customer-facing improvements at Harvard Station.	Red Line	Closeout	\$0.0M	\$3.5M

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Green Line Surface Station Accessibility I (P0890)	Funds to rebuild Green Line surface stations and related infrastructure on B, C, D, and E lines to promote ADA compliance and infrastructure improvements aligned with Green Line's capacity and accessibility studies and analyses.	Green Line	Design	\$13.5M	\$19.5M
Parking Technology Upgrade Program (P0881a)	Improvements to MBTA's parking access and revenue control equipment at parking and surface lots.	Systemwide	Planning	\$3.6M	\$5.2M
Parking and Paving II (P0881)	On-call services for maintenance and repair of parking lots, bus stops, maintenance areas and ancillary facilities, and paving of existing/proposed access roads at Wellington, Andover, West Natick, Forest Hills, Orient Heights, and Chestnut Hill.	Multimodal	Construction	\$1.6M	\$7.3M
Courthouse NE Headhouse (P0858)	Construction of two headhouses at Silver Line's Courthouse Station. One headhouse will include an accessible elevator and the other an escalator and grand open stairwell. Both headhouses will be equipped with demountable flood control barriers.	Silver Line	Construction	\$17.2M	\$21.1M
Ruggles Station Improvements Phase 2 (P0856)	Continuation of improvements under P0175 focused on travel paths, alternate egress of Orange Line subway and Commuter Rail platforms, accessible restrooms, public address systems, electrical and fire protection upgrades, and roof replacement.	Commuter Rail	Design	\$72.9M	\$93.0M

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Commuter Rail Station Transformation and Revitalization (P0832)	Parking expansion at critical lots and funding for a program to add cameras and connect communications devices at stations using PTC fiber.	Commuter Rail	Construction	\$0.0M	\$20.0M
Expedited Wayfinding Delivery Strategy (P0831)	Design, fabrication and installation of vinyl overlay signage to replace existing wayfinding signage at 109 MBTA rapid transit stations to meet accessibility obligations of the settlement with the Boston Center for Independent Living (BCIL).	Systemwide	Construction	\$7.1M	\$10.5M
Aquarium Station Flood Barrier Protection (P0825)	Installation of floodproofing barriers around four entrances to Aquarium Station on the Blue Line.	Blue Line	Closeout	\$0.0M	\$2.4M
Ferry System Improvements - Lovejoy Wharf/BRA (P0815)	Funding to support improvements to Lovejoy Wharf near North Station.	Ferry	Closeout	\$0.0M	\$0.8M
Connectivity and Customer Convenience Program (P0761)	Improvements to poor condition bus shelters and addition of new bus shelters and amenities for customers and bus operations across the 8,000 bus stops at which the MBTA operates service.	Systemwide	Planning	\$6.4M	\$9.5M
Bus Stop Customer Satisfaction (P0689c)	Placement of digital displays with real-time bus information at bus stops, near bus stops, and buses on different lines to test and determine information delivery approaches that increase customer satisfaction and ridership.	Bus	Construction	\$0.4M	\$1.3M

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Wayfinding Improvements - Alewife, Braintree, Copley, Ruggles, and Wellington (P0677b)	Design for the replacement, repair, and update of wayfinding signage, tactile edges, lighting, platform edges, stair tread, back house system code as well as cleaning and painting at Alewife, Braintree, Copley, Ruggles, and Wellington Stations.	Multimodal	Design	\$0.0M	\$1.6M
Wayfinding Improvements - Downtown Crossing, State, Haymarket, and North Station (P0677)	Replacement, repairs, and update of wayfinding signage, tactile edges, lighting, platform edges, stair tread, back house system code as well as cleaning and painting at Downtown Crossing, State, Haymarket, and North Stations.	Systemwide	Construction	\$3.0M	\$83.1M
Minor to Moderate Ad Hoc Station Accessibility Improvements (P0639)	Improvements at approximately 178 stations to overcome barriers to accessibility. Addresses deteriorating and non-compliant curb ramps, paths of travel, handrails, broken or missing warning panels, inaccessible restrooms, and the lack of benches.	Systemwide	Construction	\$9.4M	\$10.7M
MBTA Vertical Transportation Capital 20 Year Plan (P0636)	Assessment of MBTA's nearly 400 elevators and escalators to develop a 20-year capital investment and state of good repair maintenance plan for these assets. The plan will be amended based on work progression and stakeholder feedback.	Systemwide	Pre-Design	\$0.2M	\$1.3M

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Hynes Convention Center Station (P0626)	Improvements to Hynes Convention Center Station including upgraded fare gates; redundant elevators; raised platforms; upgraded egress, wayfinding, signage; and electrical, fire, communications, HVAC, plumbing, lighting, and security systems.	Green Line	Design	\$40.1M	\$45.7M
Floating Barge / Gangway Systems Overhauls Reconditioning (P0621)	Reconstruction of the Charlestown Ferry's Pier 4 landing. Includes two new steel barges, new aluminum gangways, ramps, platforms, and all removal and installation charges.	Commuter Rail	Construction	\$0.2M	\$0.8M
Bus Priority and Accessibility Improvements (P0613)	Accessibility improvements at 200 bus stops as part of the PATI program. This project also includes design and construction of dedicated bus lanes in Boston, Chelsea, Somerville, Cambridge, Revere and Everett.	Bus	Construction	\$18.5M	\$48.2M
Alewife Garage Rehabilitation (P0605)	Near-term maintenance needs for Alewife parking garage. Includes repairs to structural elements; mechanical, fire, and electrical systems improvements; plumbing repairs to storm and sanitary sewer systems; and accessibility upgrades.	Red Line	Construction	\$32.6M	\$79.0M
Blue Line Flood Protection (P0582)	Development and implementation of measures to prevent flooding on the Blue Line.	Blue Line	Closeout	\$0.0M	\$0.4M

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Systemwide Platform Edge Inspections (P0546)	Inspection of rail platform edges throughout the system.	Systemwide	Construction	\$0.0M	\$1.0M
Elevator and Escalator Capital Expenses (P0520)	Funding to support the capital maintenance of elevators and escalators systemwide.	Systemwide	Closeout	\$0.0M	\$0.5M
On-Call Commuter Rail Mini-Highs and Detectable Edge Repair (P0491c)	On-call design and construction related services to support urgent repair/reconstruction of mini-high platforms and detectable warning edges at Commuter Rail stations systemwide to maintain and improve safety.	Commuter Rail	Design	\$2.7M	\$3.0M
State Street Elevator Replacement (P0491b)	Replacement of elevator at State Street Station to improve accessibility on the rapid transit system.	Multimodal	Design	\$0.1M	\$0.5M
Accessibility Improvements (P0491)	Supports a variety of miscellaneous accessibility-related improvements across the system	Systemwide	Design	\$5.7M	\$9.6M
Station Management (P0473)	Funding to support management of transit stations across the system.	Systemwide	Closeout	\$0.0M	\$18.8M
Parking Lot Paving - On-Call (P0456)	On-call construction services to support urgent repair/reconstruction needs related to parking lot maintenance and repair work, paving of existing and proposed access roads, bus maintenance areas, bus stops, and ancillary facilities.	Systemwide	Construction	\$2.9M	\$31.0M

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Courthouse Station Leaks (P0404)	Repairs to address sources of water intrusion at Courthouse Station on the Silver Line to achieve a dry, safe, fully functional station interior space.	Silver Line	Construction	\$20.2M	\$34.1M
Sullivan Square Station Rehabilitation (P0402)	Repairs and waterproofing of concrete platforms, canopies, and drainage at Sullivan Square Station. Includes new or repaired platform rub rails, tactile warning panels, and an on-call roofing Contract to install new protective roofing system.	Orange Line	Closeout	\$0.0M	\$7.3M
Worcester Union Station Accessibility and Infrastructure Improvements (P0395)	Includes high-level center platform with elevators, ramps, and stairs, replacement and realignment of station tracks, and construction of a new rail crossover to improve accessibility, operations, and service capacity at Worcester Union Station.	Commuter Rail	Construction	\$59.0M	\$70.6M
Commuter Rail Mini-High Platform Repairs (P0256)	Replacement of two mini-high platforms with Fiber Reinforced Polymer (FRP) deck panels and related canopies in Beverly and North Beverly Stations.	Commuter Rail	Design	\$2.4M	\$2.5M
Back Bay Groundwater Remediation (P0181)	Development and implementation of solutions to address groundwater recharge systems at Back Bay.	Multimodal	Construction	\$1.8M	\$5.0M
Winchester Center Station (P0179)	Renovation of Winchester Station on the Lowell Line to provide code compliant new level-boarding height, fiber resin platforms, lighting system, accessibility ramps, elevators, walkways, variable message signs, public address system and CCTV.	Commuter Rail	Construction	\$52.1M	\$60.9M

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South Attleboro Station Improvements (P0178)	Design for the construction of a new South Attleboro Station to include 800-foot high-level platforms, 3 elevators, platform access ramps, a bus bay, egress to Newport Avenue, additional parking, improved vehicular circulation, and updated lighting.	Commuter Rail	Design	\$1.6M	\$7.0M
Ruggles Station Upgrade (P0175)	Addition of a new 800-foot-long commuter rail platform to service Track 2 at Ruggles Station and replacement of existing elevators for ease of access. Includes interior and exterior repairs and improvements to station facilities.	Multimodal	Construction	\$2.5M	\$38.9M
Natick Center Station Accessibility Project (P0174)	Improvements to make Natick Center Station fully accessible and connected to the new Cochituate Rail Trail. Includes new stairs, ramps, elevator access, bike shelters, lights, cameras, wayfinding, PTC/ATC upgrades, and streetscape improvements.	Commuter Rail	Construction	\$29.8M	\$49.6M
Mansfield Station Accessibility (P0173)	Improvement of ramps, stairways, mini-high platforms, sidewalk pavement, tactile strips, lighting, guard rails, bollards, signage, VMS systems, curb cuts, benches, trash bins, landscaping, and parking lot accessibility. Includes emergency generator.	Commuter Rail	Closeout	\$0.0M	\$11.3M
Newton Commuter Rail Stations Design (P0170)	Design of double-side, high level, fully accessible platforms at Auburndale, West Newton, and Newtonville Stations. Additional improvements include bike shelters, pick-up/drop-off locations, accessible parking, and connection to The RIDE.	Commuter Rail	Design	\$8.0M	\$12.7M

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Wollaston Station / Quincy Center Garage Demolition (P0169)	Complete modernization of Wollaston Station, demolition of the top 3 levels of the Quincy Center parking garage, replacement of one elevator at Quincy Center, and construction of an accessible walkway to Quincy Center.	Red Line	Closeout	\$0.5M	\$105.7M
Symphony Station Improvements (P0168)	Upgrade Symphony Station to a modern and fully accessible passenger facility. Includes construction of four new elevators, raised platforms, accessible restrooms, installation of egress stairs, and upgraded fire alarm systems.	Green Line	Design	\$83.2M	\$91.4M
Orient Heights Station (P0167)	Demolition and reconstruction of Orient Heights Station including two above-grade platforms with canopies, all wayside and building systems, overhead catenary relocation, and vertical transportation improvements.	Blue Line	Closeout	\$2.5M	\$32.9M
Harvard Square Busway Repairs (P0165)	Rehabilitation of roadway, lighting, signage, drainage, and catenary systems in the Harvard busway and accessibility upgrades to ensure near level boarding for the 71 and 73 buses.	Bus	Closeout	\$0.0M	\$29.5M
Forest Hills Improvement Project (P0163)	Accessibility and state of good repair improvements at Forest Hills Station. Includes elevator replacement, new elevator/stair tower to connect upper and lower busway, accessibility upgrades, station brightening, wayfinding, and platform repairs.	Orange Line	Design	\$29.0M	\$32.6M

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Newton Highlands Green Line Station Accessibility Project (P0129)	Accessibility improvements at Newton Highlands on the Green Line D Branch. Includes 3 ramps with canopies, 2 staggered 4-car 300' raised platforms, 2 at-grade pedestrian crossings, site lighting, heated platform shelters, and covered bike racks.	Green Line	Design	\$28.6M	\$32.2M
Back Bay Station Ventilation (P0108)	Improvements and upgrades to ventilation, air quality, and electrical power system on the Commuter Rail and Orange Line platforms at Back Bay Station as part of the station concourse's renovations.	Commuter Rail	Design	\$31.2M	\$43.1M
Wonderland Parking Facility (P0093)	Replacement of PVC conduit at Wonderland garage elevators and lobbies, transit station, and plaza elevators and egress paths.	Blue Line	Closeout	\$0.3M	\$11.3M
Salem Station Garage (P0092)	Construction of a 715-car parking facility at the Salem Commuter Rail station on the Newburyport/Rockport Line. The new garage opened to the public in late 2014.	Commuter Rail	Closeout	\$0.0M	\$40.3M
Lynn Parking Garage Phase 1 (P0090)	Elevator, waterproofing, HVAC, electrical, plumbing, and fire protection system improvements at Lynn Station and parking garage.	Commuter Rail	Closeout	\$0.3M	\$6.6M

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Braintree and Quincy Adams Garage Rehabilitation (P0087)	Repairs to existing Braintree and Quincy Adams station garages. Includes upgrades to mechanical, electrical, plumbing, life safety systems, wayfinding, traffic circulation and parking layout. Also includes two new elevators at the Braintree garage.	Red Line	Construction	\$15.7M	\$118.7M
Hingham Ferry Terminal (P0079)	Improvements to Hingham ferry dock to replace existing barge landing and supporting structures to make them ADA compliant. Includes dredging on the east side of the dock.	Ferry	Closeout	\$0.0M	\$10.5M
Hingham Ferry Dock Modification (P0078)	Replacement of existing floating dock, access gangway, canopy, and walkways; extension of canopy structure to the Hingham Intermodal Center; and upgraded lighting, safety, and security systems.	Ferry	Design	\$22.3M	\$24.9M
Ferry System Improvements (P0077)	Funding to support a number of improvements to Pemberton Pier ferry terminal in Hull.	Ferry	Construction	\$0.3M	\$0.6M
Oak Grove Station Vertical Transportation Improvements (P0076)	Accessibility upgrades at Oak Grove station including 3 new elevators, replacement of one existing elevator, sidewalk repairs, and wayfinding and station brightening improvements.	Orange Line	Construction	\$6.4M	\$39.7M
Elevator Program Multiple Location Design (P0075)	Design and some construction work for the replacement of elevators and/or addition of new, redundant elevators and related wayfinding amenities at transit stations.	Systemwide	Design	\$41.5M	\$54.7M

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Downtown Crossing Vertical Transportation Improvements Phase 2 (P0074)	Design and construction of 3 new elevators to provide vertical transfers from the Red Line northbound to the Orange Line southbound platform, and from the Orange Line northbound to the Red Line southbound platform at Downtown Crossing.	Red / Orange Line	Design	\$73.7M	\$77.8M
Park Street Elevator (P0066h)	Replacement of existing station elevator at Park Street to meet ADA and BCIL requirements.	Multimodal	Closeout	\$0.0M	\$5.3M
Downtown Crossing Elevator Phase 1 (P0066g)	Installation of two new elevators at Downtown Crossing to meet ADA and BCIL requirements. Includes exit gate improvements, creation of 'points of safety' with fire/smoke rated wall and door assemblies, and a new fire alarm system.	Red / Orange Line	Closeout	\$0.6M	\$19.7M
Harvard/Central Elevator (P0066e)	Replacement of existing station elevator No. 821 at Harvard Square and elevator No. 861 at Central Square on the Red Line to meet ADA and BCIL requirements. Also includes replacement of Central escalator No. 360.	Red Line	Construction	\$0.6M	\$19.0M
Alewife Station Vertical Transportation Improvements (P0066d)	Replacement of 3 existing station elevators at Alewife to meet ADA and BCIL requirements. Includes cab replacement; upgrades to mechanical, communication and safety systems; and wayfinding signage to elevators.	Red Line	Closeout	\$0.0M	\$7.2M

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Tufts/Andrew Elevators (P0066b)	Replacement of 3 existing station elevators at Tufts Medical Center on the Orange Line and Andrew Station on the Red Line to meet ADA and BCIL requirements.	Multimodal	Closeout	\$0.0M	\$11.5M
Quincy Adams Accessibility Improvements (P0066a)	Replacement of 3 existing elevators and addition of a new elevator at Quincy Adams in order to meet ADA and BCIL requirements. This project also includes upgrades to mechanical, communication and safety systems, and wayfinding signage.	Red Line	Construction	\$0.0M	\$12.9M
Elevator Program (P0066)	This program funds design and construction for elevator improvements on the rapid transit system. Individual elevator projects are separated into child projects once they reach the construction stage.	Red Line	Closeout	\$1.7M	\$49.6M
Bus Route Safety and Service Improvements (P0044)	Design and construction of accessibility improvements at 95 bus stops across 20 municipalities. Improvements may include new sidewalks, curbing, accessible landing pads, crosswalks, pavement markings, curb ramps, and pedestrian traffic signals.	Bus	Construction	\$1.8M	\$9.5M
Green Line B Branch Consolidation (P0003)	Consolidation of four Green Line B-Branch stops into two new, fully accessible stations: Babcock Street and Amory Street. Features include accessible boarding and exits, security and lighting upgrades, and longer platforms to accommodate Type 10s.	Green Line	Closeout	\$0.0M	\$29.5M

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Station Brightening and Map Upgrades (R0132b)	Funds to support station brightening, map upgrades, and other general improvements systemwide. Includes paving of the busway at Kenmore Station and the Town Field busway in Dorchester.	Systemwide	Construction	\$0.6M	\$6.3M
Alewife Crossover Improvements (R0117)	Replacement and upsizing of track crossover near Alewife Station on the Red Line.	Red Line	Design	\$11.0M	\$12.6M
Lynn Station Improvements Phase II (R0071)	Design funding for new elevators, stairs, platform, canopy, and architectural improvements to the station and the intent to acquire and demolish structures under station's viaduct.	Commuter Rail	Design	\$14.8M	\$16.5M
Park Street Station Wayfinding Improvements (R0069)	Various improvements to lighting, CCTV placement, wayfinding and illuminated exit signage, braille signage, floor finishes, benches, and 24 staircases at Park Street. Includes artwork restoration and reopening of Tremont Street's Temple Place stairs.	Multimodal	Construction	\$0.0M	\$23.9M
Stations Needs Assessments (R0031)	State of good repair assessment of stations on the rapid transit system (Blue, Green, Orange, and Red Lines) and construction of identified improvements.	Systemwide	Planning	\$1.4M	\$2.8M
Systemwide Stair Repairs (R0029)	Inspection, design development, and construction for the repair and replacement of stairs and escalators throughout the MBTA system. Stairs and escalators are inspected and then prioritized for improvement according to condition.	Systemwide	Pre-Design	\$9.6M	\$10.0M

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## Vehicles Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Reliability Centered Maintenance - Blue, Orange and Red Line (P1162)	Improvements to trucks, brakes, motors, current collectors, propulsion and auxiliary fuses on the Blue Line and improvements to propulsion, brakes, HVAC, and doors on the Red and Orange Lines.	Multimodal	Proposed	\$25.1M	\$35.4M
Hot Box Detector (P1161)	Addition of hot box detectors to the heavy rail lines. The hot box detector is used to monitor the journal bearings of the heavy rail fleet axles.	Multimodal	Proposed	\$2.1M	\$2.1M
Impactor Detector (P1160)	Addition of impact detectors to the heavy rail lines. The impactor detector is used to monitor the wheels for flat spots and other failures that impact the service of the heavy rail fleet.	Multimodal	Proposed	\$2.5M	\$2.5M
Everett Test Equipment Upgrades (P1159)	Addition of 2 AC traction motor test cells, 2 tread brake unit test benches, 1 air compressor test unit, and a thermal chamber at the Everett Main Repair Facility.	Multimodal	Proposed	\$3.0M	\$3.0M
New Flyer SR1222 & SR1105 A/C Condenser Replacement (P1158)	Replacement of the HVAC condensers on New Flyer SR1105 and SR122 buses to accommodate new EPA regulations and make the vehicles more resilient to extreme heat.	Bus	Proposed	\$3.0M	\$3.0M
Systemwide Non-Revenue Vehicles Program (P1157)	Replacement of non-revenue vehicles in the authority's fleet. Non-revenue vehicles include first response vehicles, service cars and trucks, and many other types of vehicles that support operations and maintenance of the system.	Systemwide	Proposed	\$6.0M	\$6.0M

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Hybrid Bus Overhaul (New Flyer XDE40 - SR 2011) (P1155)	Planning for the midlife overhaul of 44 sixty-foot New Flyer hybrid buses delivered in 2016-2017. These buses require overhaul of major systems and components to ensure continued reliable and safe operations and to meet FTA service life requirements.	Bus	Proposed	\$1.0M	\$1.0M
CNG Bus Overhaul (New Flyer XN40 - SR 1982) (P1154)	Planning for the midlife overhaul of 175 forty-foot New Flyer CNG buses delivered in 2016-2017. These buses require overhaul of major systems and components to ensure continued reliable and safe operations and to meet FTA service life requirements.	Bus	Proposed	\$1.0M	\$1.0M
Green Line Type 7 APS Diagnostics and Test Bench Upgrade (P1153)	Replacement of Type 7 Adaptive Power System (APS) test bench and equipment control logic circuit boards. Also includes a feasibility study for additional interface components to allow for real-time monitoring and transmission of emergency conditions.	Green Line	Proposed	\$1.3M	\$1.3M
Procurement of Hyundai Rotem Bi-Level Coaches - Option (P1152)	Procurement of Bi-Level Coaches to replace the 30+ year old single level Commuter Rail coaches currently in use.	Commuter Rail	Proposed	\$147.7M	\$160.9M
Blue Line Vehicle Mid-Life Overhaul (P1151)	Planning for the midlife overhaul of 94 Blue Line heavy rail vehicles built by Siemens. The project will address systems at or nearing the end of their intended service lives, obsolete components and functional improvements.	Blue Line	Proposed	\$1.0M	\$1.0M

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Green Line Type 8 Car Repairs (P1017)	Frame/body repair and rehabilitation of two Green Line Type 8 vehicles involved in an August 2021 collision.	Green Line	Construction	\$2.0M	\$2.5M
Mattapan Trolley Select System Upgrade (P1016)	Overhaul of the 75+ year old PCC cars operating on the Mattapan Line to improve reliability of the fleet. Includes work on the propulsion system, trucks, auxiliary electrical power system, wiring, lighting, doors, car body, and paint.	Mattapan Line	Construction	\$2.8M	\$3.5M
Bus and RIDE Air Filtration System (P0973)	Installation of in-vehicle air treatment solutions to capture or inactivate airborne viruses on buses and RIDE vehicles.	Multimodal	Construction	\$2.1M	\$5.0M
Bus Operator Barrier Door/Extended Glass (P0954)	Addition of glass barrier doors between passenger areas and bus operators to reduce the spread of COVID-19.	Bus	Closeout	\$0.0M	\$1.3M
Green Line Type 8 Printed Circuit Boards Replacement (P0930)	Re-engineering and replacement of the propulsion and brake control logic circuit boards for the Green Line Type 8 fleet.	Green Line	Pre-Design	\$1.7M	\$3.9M
Ferry Enhancements (Vessel, Docks & Infrastructure) (P0928)	Improvements to ferryboats and related dock infrastructure, including any necessary emergency repairs.	Ferry	Construction	\$0.0M	\$0.3M

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Rolling Stock - Locomotive and Coach State of Good Repair and Resiliency (P0927)	Upgrades to improve system reliability, correct deficiencies, standardize procedures, and increase equipment availability for Commuter Rail rolling stock. Includes vehicle procurement, testing support, service life enhancement, and overhauls.	Commuter Rail	Construction	\$173.1M	\$174.1M
Future Rolling Stock Fleet (P0918)	Planning funds to support procurement of future regional rail rolling stock to replace the oldest vehicles in the fleet.	Commuter Rail	Planning	\$50.0M	\$50.0M
Hybrid and CNG Bus Overhaul (P0911)	Midlife overhaul of major systems and components of 156 40ft hybrid buses, 175 40ft CNG buses, and 45 60ft hybrid buses to ensure reliable and safe operations that meet FTA requirements.	Bus	Planning	\$26.0M	\$26.0M
Procurement of 67 Bi-Level Commuter Rail Coaches (P0893)	Procurement of 67 bi-level coaches from Hyundai Rotem to replace existing vehicles due for retirement.	Commuter Rail	Design	\$147.3M	\$276.1M
Coach Refurbishment (P0882)	Provision of qualified maintenance personnel and staff, tools, supplies, and diagnostic equipment to perform maintenance, repair, inspections, cleaning and other services on MBTA's Commuter Rail passenger fleet.	Commuter Rail	Construction	\$7.8M	\$33.0M
Hybrid Bus Overhaul (New Flyer XDE40 - SR 1881) (P0860)	Midlife overhaul of major systems and components (engine, drive unit, cooling systems, axles, brakes, among others) of 60 40ft BAE Hybrid buses to ensure reliable and safe operations and to meet FTA service life requirements.	Bus	Design	\$38.9M	\$41.7M

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Locomotive Reliability Improvements (P0799)	Overhaul of 16 locomotives including all mechanical, pneumatic, electric, and metal work.	Commuter Rail	Construction	\$3.1M	\$15.3M
RFID Rail Vehicle Fleet and Components (P0796)	Development, implementation and installation of a Radio Frequency Identification Detection (RFID) system and best-practice model for heavy rail and light rail vehicle maintenance. This system tracks component locations and vehicles.	Systemwide	Construction	\$0.1M	\$0.6M
RFP Development for Red / Orange Line Car Reliability Centered Maintenance (P0765)	Procurement of subject matter expertise on maintenance, procurement, and logistics to improve reliability and availability of new Red and Orange Line heavy rail vehicles through a Reliability Centered Maintenance Program (RCM).	Red / Orange Line	Closeout	\$0.4M	\$0.9M
Blue Line Reliability Centered Maintenance (P0682)	Implementation of Reliability Centered Maintenance (RCM) approach for four years at rail shops located in the Orient Heights Car House and Everett Main Repair Facility to support long-term reliability and state of good repair of the Blue Line fleet.	Blue Line	Construction	\$1.8M	\$9.7M
Third Rail Jumper (P0673s)	Assessment of third rail jumpers by a third party and recommendation of improvements to safe operating practices.	Multimodal	Planning	\$0.1M	\$0.1M
Bus WiFi (P0673r)	Addition of wireless access points to bus maintenance facilities and storage yards to support better tracking of maintenance issues and activities and allow maintenance staff to use tablets for tracking and inspection.	Bus	Construction	\$1.0M	\$1.0M

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Blue Line Coupler Overhaul (P0673q)	Overhaul of Blue Line couplers to support service reliability.	Blue Line	Construction	\$3.3M	\$3.3M
Green Line Type 7 LED Destination Signs (P0673p)	Replacement of obsolete LED signs on Green Line Type 7 light rail vehicles to match the signs currently used on the Type 8 and Type 9 fleets.	Green Line	Construction	\$0.9M	\$1.1M
Hydraulic Wheel Press for Subway Main Repair Facility (P0673o)	Purchase and installation of a new wheel press for the Subway Main Repair Facility. The new state-of-the-art wheel press will improve the efficiency of work and allow real time data collection on each wheel installed.	Systemwide	Construction	\$1.3M	\$1.8M
Evaluation of Orange Line & Red Line Wheel Profile for Flange Angle (P0673n)	Engineering review of Red and Orange Line wheel profiles and recommendation of a new profile with a steeper flange angle. Also includes a review of the wheel periodic inspection and defect identification criteria currently used by Subway Operations.	Red / Orange Line	Construction	\$0.4M	\$0.6M
Green Line Vehicle Support (P0673m)	Replacement of car wash at Reservoir Maintenance Facility and creation of transom bearing replacement program for the Green Line Type 8 fleet.	Green Line	Construction	\$1.4M	\$1.4M
Equipment Lease - Power Department Support (P0673L)	Lease of 17 pieces of non-revenue vehicle equipment to support power-related capital maintenance efforts systemwide.	Systemwide	Construction	\$0.2M	\$0.6M

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Power-Ex Air Compressor Replacement (P0673k)	Replacement of Power-Ex inline air compressors in 219 New Flyer buses.	Bus	Construction	\$0.2M	\$1.0M
ETB & DMA Propulsion Board Replacement (P0673j)	Replacement of propulsion boards in 32 dual mode articulated (DMA) buses and 28 electric trolleybus (ETB) buses.	Bus	Construction	\$0.1M	\$0.5M
New Flyer Battery Replacement (P0673i)	Replacement of batteries in 265 New Flyer buses running service out of Charlestown, Arborway, Cabot, and Southampton.	Bus	Construction	\$0.1M	\$0.5M
Revenue Vehicle Cap Maintenance Audit (P0673h)	Professional services to perform audits of the preventative maintenance inspection process for all Subway vehicle types to ensure that MBTA's processes are performed correctly and vehicles are performing safely.	Multimodal	Pre-Design	\$0.0M	\$0.6M
Green Line Fleet Flooring Upgrades (P0673g)	Replacement of ply metal, inspection of floor beam support, and repair of sheet metal drip pan, threshold adjustment, and vinyl flooring on the Green Line fleet.	Green Line	Construction	\$0.0M	\$1.5M
Orange Line Rail Vehicle Component Upgrades (P0673c)	Overhaul of Orange Line's 100 rail vehicle A1 traction motors, 83 rail vehicle traction motor armatures, and 80 rail vehicle auxiliary motor armatures.	Orange Line	Construction	\$0.3M	\$3.3M

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Bus Component Replacement and Overhaul (P0673b)	Equipment upgrades at Everett and Charlestown bus facilities linked to fueling equipment and tanks, device monitoring, piping, fire suppression systems, upholstery and lumber machinery, autonomous 54-inch printers, and sign shop upgrades.	Bus	Closeout	\$0.2M	\$1.3M
Bus Fuel Injector Upgrade (P0673a)	Replacement, upgrade, overhaul, and procurement of vehicles' capital equipment and components related to engines, brake and electrical components, command fuel control, monitoring systems, and diesel particulate filters.	Bus	Closeout	\$0.1M	\$1.5M
Revenue Vehicle Capital Maintenance (P0673)	Funding to support revenue vehicle maintenance projects beyond routine preventative maintenance. Previously funded efforts include bus fuel injector, Green Line fleet flooring, and Orange Line rail vehicle component upgrades.	Systemwide	Construction	\$13.2M	\$13.3M
Transit Police Fleet Replacement Program (P0666)	Replacement of police vehicles and equipment to ensure that the Transit Police Department can maintain a safe and reliable fleet of emergency response vehicles.	Systemwide	Construction	\$0.1M	\$3.2M
Systemwide Non-Revenue Vehicles Program (P0662)	Systemwide replacement of non-revenue and support fleet including first response vehicles, service cars and trucks, trade vans, spreaders, spot tampers, cranes, inserters, among other key vehicles for safety, emergency response, and maintenance.	Multimodal	Construction	\$0.6M	\$16.0M

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Commuter Rail Rolling Stock Damage Emergency Repairs (P0658)	Funds to procure services and subject matter expertise to assess damages to locomotives and coaches, prepare solicitation packages, and finance required repairs to ensure fleet is repaired in a timely manner for continued and reliable service.	Commuter Rail	Construction	\$0.0M	\$1.5M
Replacement of RIDE Revenue Vehicles (P0656)	Ongoing replacement of RIDE vans and sedans, equipment of the full fleet with reliable in-vehicle technology, and procurement of a maintenance quality control consultant.	Paratransit	Construction	\$18.1M	\$77.2M
Remote Monitoring of Rolling Stock Subsystems (P0655)	Procurement and installation of video and monitoring systems on commuter rail locomotives and control coaches to improve remote monitoring, provision of critical alerts, vehicle diagnosis, and preventive maintenance.	Commuter Rail	Construction	\$3.2M	\$6.1M
Procurement of 40ft Battery Electric Buses and Related Infrastructure (P0653)	Purchase of 80 40ft battery electric buses (BEBs) to replace fleets currently running diesel bus service out of Quincy and trolleybus service out of North Cambridge.	Bus	Planning	\$100.8M	\$101.2M
Procurement of 100 Bi-Level Commuter Rail Coaches (P0652)	Procurement of 100 Bi-Level Commuter Rail coaches to replace aging single-level coaches, expand capacity from 120 to 180 passengers per coach, reduce number of coaches required, and mitigate operational bottlenecks.	Commuter Rail	Planning	\$42.5M	\$43.8M

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Option Order Procurement of New Flyer Hybrid 40ft Buses (P0649)	Procurement of 194 40ft buses with hybrid propulsion to replace an aging fleet and improve fuel economy.	Bus	Construction	\$12.7M	\$166.2M
Oil Analytics Initiative (P0647)	Procurement of oil analytics software services and technical support to identify locomotives susceptible to engine failures to avoid impacts to transit service and engine replacement.	Commuter Rail	Construction	\$0.3M	\$1.9M
NRE Genset Switcher Locomotive Overhaul (P0644)	Overhaul of two switcher locomotives and seven engine/generator modules to support train yard transportation and maintenance of passenger locomotives and coaches. Includes services to perform yearly preventive maintenance on overhauled locomotives.	Commuter Rail	Construction	\$0.0M	\$1.4M
Midlife Overhaul of New Flyer Allison Hybrid 60ft Articulated Buses (P0638)	Overhaul of 25 60ft. buses purchased in 2009 that includes major systems and components (engine, transmission, axles, brakes, suspension, HVAC, flooring, among others).	Bus	Construction	\$6.7M	\$22.9M
MBTA Catamaran Overhauls (P0633)	Overhaul of two 149-passenger subchapter "T" ferries. Includes end products as well as capital spare parts, manuals, diagnostic test equipment, tools, training, training aids, warranty, and associated materials, equipment, and services.	Ferry	Design	\$16.3M	\$16.9M

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Virginia DOT 40ft Hybrid Bus Procurement (P0620)	Procurement of 60 40ft buses through a Virginia Department of Transportation bus procurement.	Bus	Design	\$7.5M	\$57.3M
Procurement of 60ft Enhanced Electric Hybrid Buses (P0619)	Procurement of 45 60ft Enhanced Electric Hybrid (EEH) buses to replace aging bus fleet and support Silver Line service on the zero-emissions tunnel, Chelsea gateway expansion, airport operations, and other high-density routes.	Silver Line	Planning	\$77.0M	\$89.4M
Procurement of 40ft Enhanced Electric Hybrid Buses (P0618)	Procurement of 40ft Enhanced Electric Hybrid (EEH) buses to replace 40ft diesel buses purchased in 2006-2008 and support more reliable, efficient, and sustainable operations. Includes vehicle testing, warranty, and inspection.	Bus	Planning	\$350.6M	\$353.9M
Commuter Rail Locomotive Main Engine Procurement (P0595)	Procurement of spare engines for locomotives to support Commuter Rail service, in partnership with the Rhode Island Department of Transportation	Commuter Rail	Construction	\$0.9M	\$4.0M
Work Car Procurement (P0547)	Procurement of 3 crane car consists, 2 overhead catenary inspection and repair car consists and vacuum cars to remove trash, debris and leaves from right-of-way to support transit operations.	Systemwide	Construction	\$57.4M	\$63.9M

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Commuter Rail Wheel Defect Detection Services (P0529)	Installation of the Wheel Impact Load Detector (WILD) system to detect wheel impacts for targeted replacement on the Fitchburg Main Line in Leominster. Includes power supply extension, cases, wood tie spacing adjustments, and hot box reinstallation.	Commuter Rail	Construction	\$0.8M	\$2.3M
Commuter Rail Legacy Fleet Investment (P0528)	Mechanically focused investments to legacy locomotive and coach fleet to normalize fleet condition, improve reliability, longevity, and asset value, accommodate future ridership growth, and increase performance and customer satisfaction.	Commuter Rail	Construction	\$0.2M	\$18.4M
Red Line #3 Car - Targeted Reliability Improvements (P0460)	Overhaul of selective systems on the Red Line No. 3 heavy rail cars. Includes improvements to HVAC, doors, trucks, adaptive power systems, and other elements.	Red Line	Construction	\$17.3M	\$44.0M
Green Line Type 7 Selective Systems Overhaul Option (P0448)	Overhaul of selective systems on the Green Line Type 7 light rail fleet. Includes upgrades to circuit breakers, public address systems, and other elements.	Green Line	Closeout	\$1.3M	\$34.9M
Quincy High Speed Catamaran (P0381)	Procurement and construction of two 150 passenger, high-speed catamarans from Gladding Hearn Shipbuilding to support ferry service. The Champion and Glory catamarans entered service in 2017 and 2018, respectively.	Ferry	Closeout	\$0.0M	\$13.6M

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Procurement of Commuter Rail Locomotives (P0380)	Base procurement of 40 Commuter Rail locomotives to replace aging vehicles in the fleet.	Commuter Rail	Construction	\$0.6M	\$237.6M
PCC Mattapan High Speed Line (Due Diligence and Initial Study) (P0379)	Assessment of existing conditions on the Mattapan Line and study of future needs beyond the useful life of the existing assets.	Mattapan Line	Closeout	\$0.0M	\$1.2M
Overhaul of 40ft Option New Flyer Buses (P0376)	Overhaul of 155 buses comprising major systems and components such as engine, transmission, cooling system, axles, brakes, suspension, HVAC, flooring, among others.	Bus	Closeout	\$0.0M	\$44.7M
New Flyer 60ft Hybrid Bus Procurement (P0375)	Procurement of 44 new 60ft hybrid buses to update MBTA's fleet. Includes capital spare parts to support the fleet, mechanical and operator training, and full documentation package for maintenance and materials.	Bus	Closeout	\$0.0M	\$58.8M
New Flyer 40ft Bus Procurement (P0374)	Procurement of 156 Diesel and 175 Compressed Natural Gas (CNG) New Flyer buses to replace existing CNG fleet.	Bus	Closeout	\$0.0M	\$232.3M
Pilot Procurement of 60ft Battery Electric Buses (P0373)	Deployment of five new battery-electric, four-wheel drive, New Flyer Excelsior XE60 heavy-duty, low-floor, 60ft articulated buses and five 150kW ABB depot chargers on MBTA's BRT Silver Line.	Bus	Construction	\$0.0M	\$12.9M

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Kawasaki Bi-Level Coaches Overhaul (P0372)	Midlife overhaul of 24 control trailer coaches (CTCs) and 50 blind trailer coaches (BTCs) produced by Kawasaki. This work addresses brake systems, trucks, cab signals, doors, coupler and draft gear, wheels, axles, batteries, and other elements.	Commuter Rail	Closeout	\$2.8M	\$130.3M
Kawasaki Bi-Level Coaches - Overhaul Option (P0371)	Midlife overhaul of 34 blind trailer coaches (BTCs) produced by Kawasaki. This work addresses brake systems, trucks, cab signals, doors, coupler and draft gear, wheels, axles, batteries, and other elements.	Commuter Rail	Construction	\$3.8M	\$37.6M
Green Line Type 10 Light Rail Fleet Replacement (P0369)	Procurement of 102 new fully-accessible light rail vehicles (LRV) fleet to replace the existing Type 7 and Type 8 fleets and increase system capacity.	Green Line	Design	\$311.2M	\$800.0M
Green Line Type 7 Midlife Overhaul (P0368)	Selective System Overhaul of the Green Line Type 7 fleet to ensure their continued reliable operation.	Green Line	Closeout	\$0.9M	\$127.1M
ConnDOT 40ft Hybrid Bus Procurement (P0365)	Procurement of 60 buses through a Connecticut Department of Transportation procurement option.	Bus	Closeout	\$0.0M	\$4.8M
Hyundai Rotem Coach Procurement (P0363)	Procurement of 75 Hyundai Rotem passenger coaches to support Commuter Rail service.	Commuter Rail	Closeout	\$0.0M	\$181.7M

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Red / Orange Line Vehicles (P0362)	Procurement of 252 new Red Line vehicles and 152 new Orange Line vehicles to support heavy rail service. The new vehicles include capacity and accessibility enhancements as well as improved onboard diagnostics for operators and maintenance staff.	Red / Orange Line	Construction	\$579.0M	\$1073.5M
Ferry Engine Overhaul & Upgrades (P0360)	Replacement of engine components on the MBTA ferry fleet.	Ferry	Construction	\$0.6M	\$3.2M
Green Line Type 8 Reliability Improvements (P0349)	Selective System Replacement Program of Green Line Type 8 light rail vehicle components to ensure continued reliability of the fleet. This includes truck, brake system, auxiliary power system, coupler overhaul and air compressor upgrade.	Green Line	Construction	\$26.6M	\$66.5M
PCC State of Good Repair (P0311)	Overhaul of the 75+ year-old PCC cars operating on the Mattapan High Speed Line to improve reliability of the fleet. This work includes propulsion system, trucks, auxiliary electrical power system, wiring, lighting, doors, carbody repairs, paint.	Mattapan Line	Construction	\$0.0M	\$8.7M
Commuter Rail Misc. Equipment (Winter Resiliency) (P0263)	Funding to support purchase of equipment to manage severe winter weather events.	Commuter Rail	Construction	\$0.0M	\$33.7M

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## Business and Operational Support Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Security Technology End of Life Upgrades (P1148)	Replacement of security video workstation laptops that push live feeds of activity happening across the Authority and technology systems at 200 power and communications rooms across the system.	Systemwide	Proposed	\$1.5M	\$1.5M
Security Facility and Station Hardening (P1147)	This program funds security upgrades to various stations and facilities including exterior cameras at Chinatown Station; replacement or repair of hydraulic gates; and security upgrades at Everett, Charlestown, Cabot, and Southampton yards.	Systemwide	Proposed	\$1.5M	\$1.5M
Biometric Timeclock Replacement (P1143)	Replacement of approximately 120 handscanners used throughout the system for maintenance employees to clock in and out. Support for the current product is being discontinued, and the selection of a new system is ongoing.	Systemwide	Proposed	\$0.9M	\$0.9M
Operations Control Center Board Upgrade (P1142)	Replacement and upgrade of key elements of the Bus and Rail Operations Control Center real-time information boards and video processing system.	Systemwide	Proposed	\$1.8M	\$1.8M
Systemwide Asset Management Program Phase 4 (P1139)	Implementation of the Asset Management Program in accordance with FTA requirements. Includes professional services; audit, inventory, condition assessments, updates to the National Transit Database (NTD), and Transit Asset Management Plan (TAMP).	Systemwide	Construction	\$12.0M	\$12.0M

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Durante Wetland Mitigation (P1129)	Mitigation of PCB contamination at the Durante Property and transfer to the Town of Weymouth. This project is part of the Order of Conditions for the Greenbush Commuter Rail Rehabilitation project.	Commuter Rail	Proposed	\$2.2M	\$2.2M
Type 10 Operator Simulator Installation (P1105)	Construction of physical space and infrastructure necessary to accommodate a Type 10 operator training simulator, to be provided by the carbuilder.	Green Line	Proposed	\$1.0M	\$1.0M
Inclusive Outreach Strategy - Accessibility (P1021)	Development of a strategy to improve outreach/engagement among older adults and riders with disabilities, particularly those in underrepresented communities.	Systemwide	Construction	\$0.0M	\$0.2M
FY21 Homeland Security Funds - Project B (P1020)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Construction	\$1.8M	\$2.0M
FY21 Homeland Security Funds - Project A (P1019)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Construction	\$6.7M	\$8.4M
Near-Term Transformational Investments (P1014)	Funding to support near-term capital investments and to leverage outside funding opportunities that may arise during the fiscal year.	Multimodal	Planning	\$30.0M	\$30.0M

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<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Bus Video Security System Mandatory Platform Upgrade (P1013)	Purchase and installation of new video recording systems on the bus fleet to enable transition to updated security video software. This funding supports the upgrade of 380 buses.	Bus	Design	\$0.0M	\$3.3M
Red Line - PM/CM Professional Services (P1012r)	PM/CM services to support MBTA staff in managing the various infrastructure upgrades necessary to accommodate the new Red Line vehicle fleet.	Red Line	Design	\$24.0M	\$25.1M
Orange Line - PM/CM Professional Services (P1012o)	PM/CM services to support MBTA staff in managing the various infrastructure upgrades necessary to accommodate the new Orange Line vehicle fleet.	Orange Line	Design	\$24.0M	\$25.1M
FY20 Homeland Security Funds (P0971)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Construction	\$0.6M	\$1.1M
Transit Speed & Reliability Toolkit (P0949)	Development of planning and design "toolkit" to help standardize design strategies for improving the speed and reliability of bus service.	Systemwide	Planning	\$0.1M	\$0.4M
COVID-19 Claims Support (P0943)	Funding for professional services and staff augmentation to manage construction contractor claims associated with alleged impacts of COVID-19.	Systemwide	Design	\$0.1M	\$0.4M

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Systemwide TOD Advanced Support Program (P0939)	Funding to support Transit-Oriented Development staff and initiatives linked to planning, coordination, and delivery of public and private projects with funding from third parties that support the MBTA and its facilities.	Systemwide	Design	\$1.4M	\$1.5M
Rail Transformation Planning Studies (P0934)	Funding to support conceptual planning of Phase 1 of Regional Rail Transformation, as well as the planning, development, and procurement of the future operating contract(s).	Commuter Rail	Planning	\$5.6M	\$13.0M
Electrical Safety - Incident Energy Analysis and System Upgrades (P0932)	Funding to assess and address systemwide electrical hazards and cover replacement, improvement, and new material or equipment costs to comply with the Electrical Safety Program and occupational safety and health requirements.	Systemwide	Planning	\$14.0M	\$16.2M
Safety Management System (SMS) Implementation (P0931)	Costs associated with implementing the MBTA's Safety Management System (SMS), required in accordance with 49 CFR Part 673 and 220 CMR 151.	Systemwide	Construction	\$10.1M	\$11.3M
Bus Network Redesign Community Outreach (P0916a)	Supplemental funding to support community outreach and public engagement activities for the Bus Network Redesign program.	Bus	Construction	\$0.0M	\$0.0M

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Bus Network Redesign Implementation (P0916)	Design and construction of bus priority infrastructure, including bus lanes, queue jumps, transit signal priority, and other treatments along corridors identified as priorities in the Bus Network Redesign process.	Bus	Planning	\$4.5M	\$4.7M
Systemwide Asset Management Program Phase 3 (P0904)	Implementation of the Asset Management Program in accordance with FTA requirements. Includes professional services, audit, inventory, condition assessments, updates to the National Transit Database (NTD), and Transit Asset Management Plan (TAMP).	Systemwide	Construction	\$8.0M	\$11.5M
ROW-Commercial Assessment (P0894)	Assessment of potential addition of commercial infrastructure (conduit, fiber, access points) to the Fiber Optic Resiliency project along the Commuter Rail right-of-way.	Systemwide	Planning	\$0.2M	\$1.0M
Capital Acceleration Consultant (P0891)	Funding for strategic advisory consultant services associated with leading and managing the capital program.	Systemwide	Design	\$0.0M	\$2.6M
DPU Consulting. Permitting (P0887)	Funding for two Commonwealth of Massachusetts State Building Inspectors and one Commonwealth of Massachusetts Electrical Inspector that provide permits for and work exclusively with the MBTA.	Systemwide	Design	\$0.0M	\$0.5M

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Capital Program Support - Capital Planning (P0886d)	Funding to support the Capital Planning program.	Systemwide	Design	\$0.3M	\$1.0M
Capital Program Support - OCE (P0886c)	Funding to support the Office of the Chief Engineer.	Systemwide	Design	\$0.0M	\$0.0M
Capital Program Support - Capital Delivery (P0886b)	Funding for capital support staff in the areas of Change and Claims Management, Field Inspection, Resident Engineering, and Project Controls.	Systemwide	Design	\$3.5M	\$6.6M
Capital Program Support - CPO (P0886a)	Funding to support Capital Program Oversight.	Systemwide	Design	\$0.0M	\$1.0M
Capital Program Support (P0886)	Funding for capital support staff in the areas of Change and Claims Management, Field Inspection, Resident Engineering, and Project Controls.	Systemwide	Design	\$20.7M	\$24.5M
FY19 Homeland Security Funds - Project C (P0877)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Construction	\$0.0M	\$1.8M
FY19 Homeland Security Funds - Project B (P0876)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Construction	\$0.0M	\$0.8M

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FY19 Homeland Security Funds - Project A (P0875)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Construction	\$0.0M	\$0.1M
Capital Acceleration Support Costs (P0872)	Funding for support services and consulting to advance the deployment of technology solutions that enhance the management and reporting of capital projects.	Systemwide	Design	\$1.1M	\$2.5M
Project Controls Staff Augmentation (P0871)	Funding to support additional staff in the MBTA Project Controls group.	Systemwide	Design	\$0.1M	\$1.4M
FY18 Homeland Security Funds - Project C (P0836)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Closeout	\$0.0M	\$1.2M
FY18 Homeland Security Funds - Project B (P0834)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Planning	\$1.3M	\$2.5M
FY18 Homeland Security Funds - Project A (P0833)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Design	\$0.3M	\$3.0M
Keolis Flagger Training (P0823)	Temporary funding set up for Keolis to train flaggers.	Commuter Rail	Closeout	\$0.0M	\$5.5M

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Bid Advertising Costs (P0751)	Funding for costs associated with advertising for Capital Project Bidding, Procurement and Bid Escrow Services.	Systemwide	Design	\$0.0M	\$0.4M
Design Standards and Guidelines (P0690)	Update to the MBTA's Manual of Guidelines and Standards and related documents in a user-friendly electronic format. This manual guides the preparation of plans and specifications for stations, facilities, and infrastructure.	Systemwide	Pre-Design	\$9.4M	\$10.9M
Project Connect - Financial Systems Transformation (P0683)	Upgrade of FMIS, the MBTA's core financial system, to support the streamlining of business processes for day to day finance, accounting, procurement, inventory, and capital project management.	Systemwide	Construction	\$15.7M	\$28.8M
Climate Change Resiliency Vulnerability Assessment (P0680)	Program to evaluate climate change-related vulnerabilities systemwide and prioritize resiliency measures.	Systemwide	Planning	\$0.7M	\$2.5M
Systemwide Security Upgrades (P0676)	This funding supports the addition of new cameras, access control devices, and other security equipment and professional services the Authority deems necessary to ensure the safety of our frontline personnel and riders.	Systemwide	Construction	\$9.3M	\$20.7M

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OHS Steering Committee - PPE and Infrastructure Improvements (P0646)	Funding to support projects designed to bring MBTA facilities and infrastructure into compliance with OSHA standards to create a safer workplace. Sample projects include systemwide fire hydrant repair and fall protection harnesses.	Systemwide	Construction	\$6.0M	\$19.3M
OHS Program Development and Implementation (P0645)	Development and implementation of a systemwide Occupational Health and Safety (OHS) program.	Systemwide	Planning	\$14.6M	\$22.3M
New Paratransit Software Solution (P0643)	Procurement and Implementation of updated software for reserving and scheduling trips on the RIDE. This software will also manage vehicle dispatch and compile reporting data.	Paratransit	Planning	\$7.9M	\$13.6M
Lean Strategy Implementation (P0630)	Implementation of a Lean Strategy program to support MBTA operations.	Systemwide	Design	\$0.2M	\$0.3M
MBTA Police - Larimore Computer-Aided Dispatch System Upgrade (P0596)	Upgrades to various modules in the Larimore Public Safety Software System including Computer Aided Dispatch (CAD), Record Incident Management, and the addition of Automatic Vehicle Locator.	Systemwide	Construction	\$0.0M	\$0.4M

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FY17 Homeland Security Funds - Project G (P0579)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Closeout	\$0.0M	\$0.8M
FY17 Homeland Security Funds - Project F (P0578)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Closeout	\$0.0M	\$3.2M
FY17 Homeland Security Funds -Project E (P0576)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Closeout	\$0.0M	\$2.5M
FY17 Homeland Security Funds - Project D (P0574)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Construction	\$0.0M	\$1.9M
FY17 Homeland Security Funds - Project C (P0573)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Closeout	\$0.0M	\$0.1M
FY17 Homeland Security Funds - Project B (P0572)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Closeout	\$0.0M	\$0.2M
FY17 Homeland Security Funds - Project A (P0571)	Funds provided by the Department of Homeland Security for security enhancements.	Systemwide	Closeout	\$0.0M	\$0.5M

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Occupational Health and Safety (OHS) Program (P0569)	Funding to support the development and implementation of the MBTA's Occupational Health and Safety (OHS) program.	Systemwide	Construction	\$0.0M	\$0.8M
Bus Service Replacement Plan (P0568)	Funding for early phases of the Better Bus Project (BBP), as well as BBP initiatives related to improving internal operations (e.g. scheduling).	Bus	Design	\$1.3M	\$4.1M
MIT Research Agreement (P0557)	Collaboration between the MBTA and MIT to conduct research at the direction of the Authority to improve service planning, operations, and capital delivery.	Systemwide	Construction	\$0.0M	\$3.2M
Employee Quality of Life Initiative (P0533)	Improvements to employee workspaces, development of a new MBTA Intranet, and deployment of digital internal communication signage throughout MBTA-owned facilities.	Systemwide	Construction	\$1.0M	\$2.8M
Asset Management Systems - Phase 2 (P0474)	Implementation of the Asset Management Program in accordance with FTA requirements. Includes professional services; audit, inventory, condition assessments, updates to the National Transit Database (NTD), and Transit Asset Management Plan (TAMP).	Systemwide	Construction	\$0.0M	\$7.3M
Asset Condition and Performance Assessments (P0459)	Condition and performance assessments of all MBTA-owned assets to support the MBTA's Asset Management program and compliance with FTA requirements.	Systemwide	Construction	\$0.2M	\$4.0M

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Environmental Compliance Management (P0435)	Remediation and removal of contaminated soils, development of permit applications or compliance plans, and installation of compliance equipment such as small treatment plants in order to address small-scale environmental matters.	Systemwide	Design	\$1.9M	\$3.0M
Canine Explosive Detect Program (P0338)	Establishment of a TSA-certified explosive detection canine teams program, providing 24/7 coverage to respond to threats which affect public safety or transportation operations.	Systemwide	Construction	\$0.5M	\$0.6M
Bond Costs / SOMWBA (P0321)	Funding to support the issuance of MBTA bonds, as well as support for loan financing.	Systemwide	Construction	\$10.0M	\$48.6M
Misc. Audit Services (P0128)	Auditing of professional services firms that provide design and other services associated with the delivery of capital projects.	Systemwide	Design	\$0.8M	\$6.3M
Independent Reviews (P0127)	Professional services to support a number of capital maintenance initiatives.	Systemwide	Construction	\$1.8M	\$9.2M
Workforce Modernization Program - HASTUS (R0128)	Upgrades to the MBTA's workforce scheduling and pick software to support and improve operations, and prepare for scheduling of future battery electric bus (BEB) fleets.	Systemwide	Planning	\$12.5M	\$40.5M

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Infrastructure Asset Management Program Phase 1 (R0020)	Implementation of the Asset Management Program in accordance with FTA requirements. Includes professional services; audit, inventory, condition assessments, updates to the National Transit Database (NTD), and Transit Asset Management Plan (TAMP).	Systemwide	Construction	\$4.1M	\$18.1M
Capital Program XG/Reserve Fund (Z0010)	Reserve funding used to cover unforeseen project costs as they arise.	Systemwide	Planning	\$32.4M	\$32.4M
Systemwide Force Account (Z0008)	Funding to support force account costs for capital projects.	Multimodal	Planning	\$0.0M	\$3.0M
Surplus and Contingency Funds (Z0007)	Contingency funding set aside to cover unforeseen project costs as they arise.	Systemwide	Planning	\$1.1M	\$1.2M

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## Technology and Innovation Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Project Resolve (P1131)	Migration of Authority's central data warehouse to a cloud-based environment, and mitigation of near-term risks to the authority's data analytics platform.	Systemwide	Proposed	\$0.6M	\$0.6M
IDCS Readiness (P1130)	Replacement of up to 100 bar code scanners and 35 printers used in warehouses and stockrooms.	Systemwide	Proposed	\$0.6M	\$0.6M
Safety Dispatch Technology and Data Modernization for Light Rail and Bus (P1122)	Procurement and installation of new hardware and software to upgrade the MBTA's Bus and Light Rail dispatch and tracking technology.	Multimodal	Proposed	\$8.2M	\$8.2M
PA/ESS Critical Upgrades (P0972)	Major overhaul of the hardware and software that makes up the in-station countdown clocks and PA system.	Systemwide	Planning	\$8.6M	\$9.4M
Performance Data Modernization (P0948)	Replacement and upgrade of back-end performance systems to improve tracking and information on vehicles, operations, service performance, quality of transit service, and customer communication while reducing operational and maintenance costs.	Systemwide	Planning	\$2.1M	\$2.3M

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Enterprise HR Automation (P0947)	Streamlining and automation of various HR systems. Includes the buildout of employee facing self-service functions and internal HR business processes.	Systemwide	Planning	\$0.1M	\$0.1M
ACE Network (P0946)	Upgrade a Synchronous Optical Network (SONET) into one Agile Carrier Ethernet-based (ACE) network to streamline technology-related operations.	Systemwide	Construction	\$13.7M	\$15.0M
IT Disaster Recovery Plan (P0945)	Establishment of a disaster recovery initiative to enable business continuity and redundancy of our existing Data Centers. This initiative aligns with the TSA Cyber Initiative announced last September.	Systemwide	Planning	\$7.1M	\$7.9M
IT Infrastructure State of Good Repair (P0944)	Technology refresh of various IT assets, including storage, servers, data network, and telephone systems to support lifecycle management and maintain assets in a state of good repair.	Systemwide	Construction	\$3.1M	\$4.9M
Communications Rooms Remediation (P0908)	Upgrades to mechanical, electrical, fire protection, and other related infrastructure to support Fare Transformation at various communications rooms at 20 Orange Line stations, 22 Red Line stations, the Green Line's Riverside Station.	Systemwide	Construction	\$7.6M	\$9.6M

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Operations Control System Integration (P0859)	Source code additions/modifications for the MBTA Operations Control System (OCS), to support integration of ongoing MBTA capital projects and procurements.	Systemwide	Construction	\$0.6M	\$1.5M
Systemwide Radio and Security Cameras Equipment Replacement (P0848)	Upgrades to existing radio infrastructure used by train operators, dispatchers, and other front line employees on the Commuter Rail system.	Commuter Rail	Construction	\$0.0M	\$3.2M
Onboard Passenger Train Information Systems (PTIS) Modernization (P0829)	Modernization of back-office and on-board components of the Commuter Rail's Passenger Train Information System (PTIS+). Includes replacement of back-end systems and on-board controls on 91 coaches.	Commuter Rail	Construction	\$0.5M	\$2.6M
PA & Countdown Signs Tactical Upgrade (P0824a)	Assessment of replacement and upgrade strategies for the public announcement and electronic signage systems (PA/ESS) to overhaul end-of-life components, increase maintenance efficiency, reduce costs, and expand vendor options.	Systemwide	Design	\$0.1M	\$0.3M
Countdown Signs Installation (P0824)	Installation of up to 30 countdown signs in strategic locations systemwide, subject to engineering viability, to improve service countdown information on platforms, add bus connection information, and add visibility outside of fare control.	Systemwide	Construction	\$0.1M	\$0.6M

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Digital Screens User Interface (P0707)	Creation of functionality and design standards for MBTA's on-system/customer-facing screens to enhance customer experience, ensure consistent information delivery across modes and locations, and create digital advertising opportunities.	Systemwide	Construction	\$0.0M	\$0.4M
Green Line Real Time Crowding (P0706)	Design and engineering of a system to extract real-time train crowding information and share it with riders and MBTA staff to allow boarding of less-crowded cars on Green Line Type 9 cars.	Green Line	Pre-Design	\$0.2M	\$0.2M
Intranet Modernization (P0701)	Replacement of the intranet used by MBTA employees for sharing information and storing reference materials. Includes implementation of TSTOP Employee intranet site and the installation of digital signage in MBTA work areas to replace bulletin boards.	Systemwide	Construction	\$0.0M	\$0.2M
The RIDE Vehicle Radio Upgrade (P0699)	Replacement of in-vehicle radios with Push-to-Talk software, and installation of backup cell phones.	Paratransit	Construction	\$0.2M	\$0.8M
Document Scanning and Retrieval (P0695)	Scanning of existing paper-based documentation to store in an electronic format.	Systemwide	Construction	\$0.2M	\$0.4M
Bus Location Instant Tracking Solution (BLITS) (P0694)	New hardware and software to improve resiliency of MBTA bus tracking, including more accurate real-time locations and predictions.	Bus	Closeout	\$0.1M	\$1.1M

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Automated Passenger Counters (P0693)	Procurement and installation of automated passenger counters (APC) for the MBTA Commuter Rail coach fleet.	Commuter Rail	Construction	\$2.2M	\$15.0M
Rider Service Alerts Resiliency & Improvements (P0689o)	Technology improvements to provide riders with upgraded, real-time service alerts about delays and other disruptions.	Systemwide	Design	\$3.5M	\$3.9M
ON PRESS Digital Flag Stop (P0689N)	Pilot to deploy new hardware and software for a "digital flag stop." This would allow passengers to request a bus to stop in advance and bus operators to bypass empty stops even when the stop is not visible to the operator.	Systemwide	Closeout	\$0.0M	\$0.3M
The Digital Ride (P0689m)	Creation of a unified back-end content management system for all rider-facing digital screens.	Systemwide	Construction	\$0.2M	\$1.5M
Improving the Shuttle Experience (P0689L)	Implementation of tools and processes to deliver real-time bus shuttle information to riders and MBTA staff, as well as expedited communication regarding service disruptions, shuttle service, and addition of rider-facing features to shuttles.	Systemwide	Closeout	\$0.2M	\$0.4M
Pass Program Modernization (P0689k)	Improvements to the corporate pass program software to stabilize the platform, streamline the user experience, increase sales capabilities, and increase customer retention.	Systemwide	Closeout	\$0.0M	\$0.4M

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Auto-Pay Expansion (P0689j)	Expansion of MBTA's auto-pay program to cover all modes of transit, improve the website, include recurrent pass sales for commuter rail and ferry rides, and enhance communications for frequent customer contact and satisfaction monitoring.	Systemwide	Closeout	\$0.0M	\$0.2M
Light Rail GPS Speed Monitoring (P0689h)	Implementation of a GPS vehicle tracking system system to enable light rail operations to remotely monitor and notify operators of vehicle speeds along above-ground sections of the Green Line and Mattapan Line tracks.	Multimodal	Closeout	\$0.0M	\$0.1M
Ghost Bus Busting (P0689g)	Improvements to various bus tracking systems and processes to reduce the number of buses not presented in real-time arrival predictions and proactively inform riders about cancelled buses in predictions.	Bus	Closeout	\$0.0M	\$0.4M
Touch-Free Elevator Access Realtime (P0689f)	Piloting real-time status monitoring system for elevator uptime and cleanliness to identify solutions that can offer real-time information to riders and maintenance staff regarding the state of elevators.	Systemwide	Closeout	\$0.0M	\$0.2M
Everbridge - Piloting New Use Cases (P0689e)	Piloting Everbridge software to support field staff and bus operation control center to communicate more efficiently regarding daily tasks, work orders, and shuttle diversion notifications.	Systemwide	Closeout	\$0.0M	\$0.2M

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Bus Dispatching Technologies (P0689d)	Improvements to TransitMaster bus dispatch system, Skate bus dispatch app, and Glides light rail management app to provide MBTA officials with improved service management tools and give more accurate arrival predictions to riders.	Multimodal	Construction	\$1.2M	\$3.1M
Software Tools for Subway Service Management (P0689b)	Development of custom software with the collaboration of heavy rail dispatchers to improve subway service management by streamlining communications about service challenges and providing dispatchers with response tools such as hold light controls.	Multimodal	Closeout	\$0.0M	\$0.3M
Customer Technology Program (P0689)	Funding to support technology projects and pilots reviewed and approved by the MBTA's IT Governance Committee. Past projects included the Skate mobile bus dispatching app, E Ink real time arrival signs, and light rail speed monitoring and reporting.	Systemwide	Pre-Design	\$1.2M	\$1.2M
MCRS2 v17 and Business Process Update (P0637)	Review and development of standardized business processes, reporting tools, and vehicle live monitoring to establish an enterprise CMMS (MCRS) system that consolidates maintenance databases and improves accountability, transparency, and compliance.	Systemwide	Construction	\$1.3M	\$5.2M

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IT Security Modernization (P0635)	Funding for a variety of projects that will upgrade and improve the MBTA's current security controls to combat external threats. This may include security operations improvements, data handling and retention improvements, and technology upgrades.	Systemwide	Construction	\$4.9M	\$17.9M
Document Management and Retrieval D2 (P0588)	Archiving and storage of documents to a cloud-based repository.	Systemwide	Construction	\$0.1M	\$4.4M
Digital Fares - Pass Program Revitalization (P0587)	Improvements to the front-end and back-end technologies that support MBTA Pass Programs.	Systemwide	Closeout	\$0.0M	\$0.7M
Transit Signal Priority Implementation (P0562)	Development, standardization and implementation of transit signal priority technology along bus routes and light rail throughout the MBTA service area.	Multimodal	Design	\$0.7M	\$1.2M
T Digital Service (P0544)	Funds to support core customer technology functions and operations including MBTA.com website, transit data for Google Maps and internal applications, and subway real-time application.	Systemwide	Design	\$0.5M	\$9.5M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
OHS System Improvements (P0542)	Technology upgrades providing secure self-service solutions for protected health information portals to maintain HIPAA compliance, automation for data exchange, dashboard and interface development, and other safety and customer service solutions.	Systemwide	Design	\$1.2M	\$3.3M
Customer Technology Improvements (P0541)	Various improvements to technology assets designed to improve the customer experience.	Systemwide	Closeout	\$0.0M	\$2.4M
Customer Technology Access Initiatives (P0491a)	Funds to support accessibility-related technology projects and pilots. Examples include feasibility assessments to deploy digital screens at elevator entrances and technology testing to support indoor navigation by riders with visual impairments.	Systemwide	Construction	\$4.0M	\$4.3M
E&M CAD Plans Digitization (P0457)	Digitization of infrastructure physical prints and drawings in support of moving to a document management system.	Systemwide	Construction	\$0.2M	\$1.5M
PMIS Implementation (P0451)	Implementation of a new project management information software (PMIS) across the authority to assist with management of capital projects.	Systemwide	Construction	\$0.6M	\$12.4M
Energy Management System (P0434)	Procurement of an Energy Management System to track, manage, and analyze utility billing, energy consumption, and environmental impact.	Systemwide		\$2.7M	\$3.5M

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<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
TransitMaster Server Upgrade (P0330)	Replacing the servers that manage the MBTA bus dispatching system. This system enables automated stop announcements, management tools for dispatchers, and real-time data for riders among other essential features.	Systemwide	Closeout	\$0.0M	\$0.5M
Systemwide Radio (P0301)	Upgrade of the MBTA's existing two-way radio system used by MBTA Transit Police and operations personnel. This project includes mobile radios for heavy rail, light rail, and bus vehicles.	Systemwide	Design	\$73.3M	\$81.2M
Green Line - Real Time Tracking (P0266)	Creation of a Green Line Tracking System (GLTS) to provide real time information to MBTA dispatchers, field inspectors, and riders.	Green Line	Design	\$0.5M	\$15.7M
Accessible Fare Gate Opener (P0265a)	Design and implementation of a technology solution to support hands-free operation of fare gates.	Systemwide	Pre-Design	\$6.9M	\$9.0M
Fare Transformation (P0265)	Replacement of outdated and overly complex fare system with new fare technologies to ensure equal access and improve operations.	Systemwide	Construction	\$420.1M	\$783.4M
AFC 1.0 (P0264)	Ongoing maintenance and support for existing fare collection system in anticipation of future upgrades.	Systemwide	Closeout	\$0.0M	\$8.7M

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## Green Line Extension Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Green Line Extension (P0095)	Extension of the northern end of the Green Line from Lechmere to Union Square in Somerville and College Avenue in Medford.	Green Line	Construction	\$357.7M	\$2118.6M
Green Line Extension - Vehicles (P0095a)	Procurement of 24 Type 9 light rail vehicles to support the Green Line Extension. All vehicles have been received and are in service as of July 2021.	Green Line	Construction	\$25.3M	\$170.0M

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## South Coast Rail Program

<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
South Coast Rail Expansion (P0160)	Extension of Commuter Rail service to Fall River, New Bedford, and Taunton on the South Coast of Massachusetts.	Commuter Rail	Construction	\$493.5M	\$920.8M
South Coast Rail - Coach Procurement (P0160a)	Procurement of additional coaches to support the expansion of Commuter Rail service to the South Coast.	Commuter Rail	Design	\$39.9M	\$69.0M

Note: Some CIP projects may show \$0 programmed spend in FY23-27 as they are expected to complete in FY22 but are not yet formally finalized or closed out

## Expansion Projects Program

Project	Description	Primary Mode/Line	Current Phase	FY23-27 Programmed Spend	Total Authorized Budget
Silver Line through Everett (P0868)	Assessment of the feasibility, utility, and service frequency options for a Silver Line extension from Chelsea.	Silver Line	Planning	\$0.0M	\$1.0M
Red-Blue Connector - Planning (P0866)	Extension of the Blue Line from its current terminus at Bowdoin Station to Charles/MGH station, in order to establish a direct connection between the Blue and Red Lines. This project is currently funded for planning and initial design only.	Multimodal	Planning	\$14.9M	\$15.0M
Fairmount/Indigo Commuter Rail Study (P0800)	Study of options for additional stations on the Fairmount Line. This study resulted in the opening of several new stations, the last of which opened for service in 2019.	Commuter Rail	Closeout	\$0.0M	\$0.4M
Silver Line Gateway - Phase 2 (P0496)	Construction of new Chelsea Commuter Rail station with a direct connection to the Silver Line. Includes new platforms, canopies, foundation systems, signage, track infrastructure, train signals, power cable duct banks, and BRT grade crossings.	Silver Line	Construction	\$3.3M	\$40.6M
Fairmount Line Improvements - Blue Hill Ave. Station (P0171)	Construction of Blue Hill Avenue station on the Fairmount Line in the Mattapan neighborhood of Boston. This station opened for passenger service in early 2019.	Commuter Rail	Closeout	\$0.0M	\$26.6M

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<b>Project</b>	<b>Description</b>	<b>Primary Mode/Line</b>	<b>Current Phase</b>	<b>FY23-27 Programmed Spend</b>	<b>Total Authorized Budget</b>
Knowledge Corridor (P0100)	Collaboration with MassDOT to upgrade 50 miles of the Pan Am Southern Connecticut River Line between Springfield and East Northfield with new ties, rail, grade crossings, signal systems, bridge and culvert repairs, and station facilities.	Commuter Rail	Closeout	\$9.0M	\$122.6M
Wachusett Extension (P0084)	Extension of the Fitchburg Line 4.5 miles west from its previous terminus at Fitchburg to a new terminus at Wachusett Station. This extension opened for passenger service in 2016.	Commuter Rail	Closeout	\$0.0M	\$34.2M

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