

MBTA Update American Council of Engineering Companies

Joseph A. Pavao, Jr., PE, MBTA Chief Engineering Officer Maureen McDonough, MBTA Acting Chief of Capital Program Support April 13, 2023

Agenda

- Today's MBTA.
- FTA's Safety Management Inspection, Office of Quality, Compliance & Oversight.
- New PPE Requirements.
- Department Priorities.
- Contracts: Recent Selections, Procurements in Process, and Upcoming Procurements.
- Capital Investment.
- Current Initiatives.



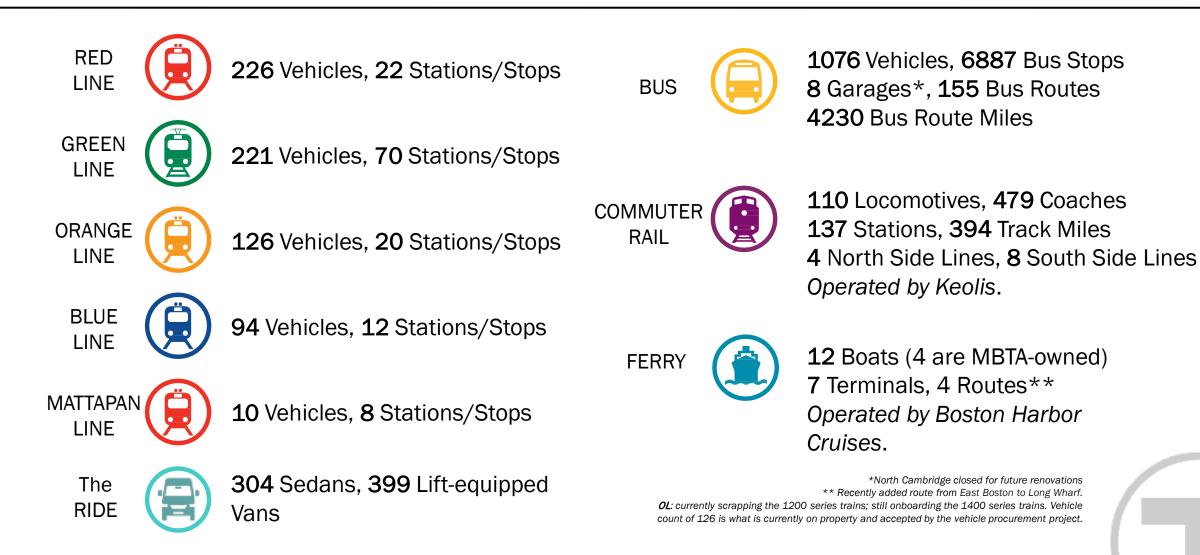
Draft for Discussion & Policy Purposes Only

Today's MBTA

America's 4^{rth} largest transit system. 175 cities and towns form the MBTA Service District: 3,200 square mile area. \sim 4.7 million residents. Nearly 700 thousand trips each weekday. 203 million boardings in FY2022. A broad variety of transit modes contributes to the T's amazing complexity: Subways, Locomotives & commuter rail coaches, Ferries, Paratransit services, Buses (most ubiquitous mode).



MBTA Assets at a Glance



Draft for Discussion & Policy Purposes Only

FTA Safety Management Inspection

Federal Transit Authority's Safety Management Inspection covered these areas:

 Rail transit operations (Red, Orange, Green, Blue Lines and the Mattapan Trolley)

- Employee Training
- Vehicle maintenance
- Signals train control and track access
- Capital project delivery and state of good repair
- Traction power
- Facilities
- Safety management



FTA SMI Report Overview & MBTA Office of QC&O Creation

FTA issued 8 Special Directives (SDs): 42 Findings, 69 Actions.

Q

MBTA created the Office of Quality, Compliance & Oversight in response to the SMI Report. Visit <u>www.mbta.com/QCO</u>

QCOO manages actions & projects related to the SMI report.

- Formed Advisory Committees.
- Identified Adaptive Challenges and Technical Challenges.
- Engaged Technical Expertise (Best Practices Review, Gap Analysis, Solution Design, Implementation Support).
- Engaged Internal Stakeholders & Frontline Workers.
- Practicing Transparency & Strong Communication (E.g., Contractor Engagement).
 Visit <u>www.mbta.com/FTAResponse</u>
- New & Revised PPE requirements.
 Visit <u>www.mbta.com/engineering</u>

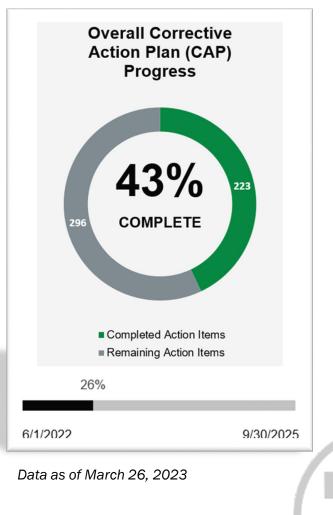


Corrective Action Plans Progress Tracked Online

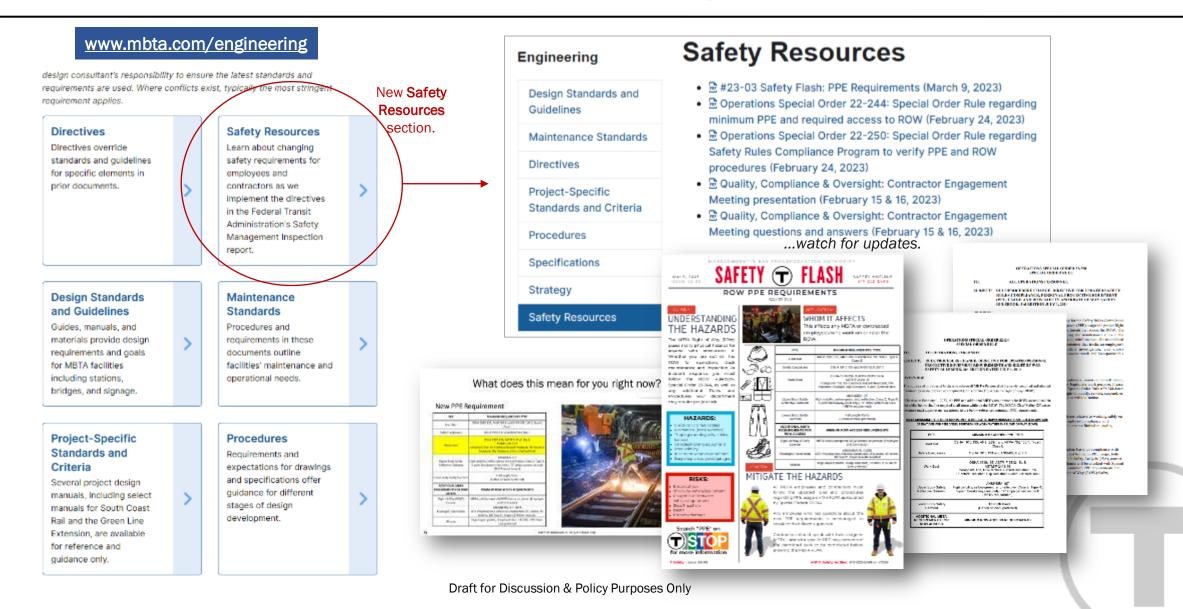
MBTA developed a series of CAPs about how findings and required actions will be resolved and how improvements will be implemented across the organization.

Progress on the 8 Special Directives can be viewed online: Visit www.mbta.com/FTAResponse





New or Revised PPE Requirements



ROW PPE Requirements

SAFETY 🕤 FLAS

SAFETY HOTLINE 617-222-SAFE

ROW PPE REQUIREMENTS

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

UNDERSTANDING THE HAZARDS

Mar 9, 2023

The MBTA Right of Way (ROW) poses many physical hazards for anyone who encounters it. Whether you are out on the ROW for operations, track maintenance and inspection, or incident response, you must follow the ROW Rulebook, Special Order 22-244, as well as any additional Rules and Procedures your department may require per job task.

HAZARDS:

Electrical (3rd rail, cables)

Machanical (track switches)

ballast)

Poor visibility

Electric shock

Slips/Trips/Falls Death

Property damage

T Safety | Issue: 23-03

Tripping (running rails, cables,

Vehicles/moving equipment

Inclement weather conditions

Busy shop areas, yards/garages

RISKS:

Struck by vehicle/equipment

Search "PPE" on

for more information

Caught in-or-between

vehicles/equipment

 $\mathbf{\hat{T}}$

APPLICATION WHOM IT AFFECTS This affects any MBTA or contracted employees who work on or near the ROW.



MITIGATE THE HAZARDS

All MBTA employees and contractors must follow the updated rules and procedures regarding PPE usage on the ROW, as required by Special Order# 22-244.

Any employee who has questions about the new PPE requirements is encouraged to speak to their direct supervisor.

Contractors should speak with their assigned MBTA Liaison for specific PPE requirements of the permitted work to be completed before entering the MBTA ROW.



MBTA Safety Hotline : 617-222-SAFE or x7233

Draft for Discussion & Policy Purposes Only

MBTA Upcoming Priorities

- *Cultivate* \longleftrightarrow A deep-seated SAFETY CULTURE.
- *Improve* \iff SERVICE across all lines.
- *Explore* \iff ALTERNATIVE CONSTRUCTION ACCESS times.
 - *Hire* \longleftrightarrow More employees.
- *Upgrade* \iff EMPLOYEE WORKSPACES & RESTROOMS.
- *Strengthen* \iff QUALITY ASSURANCE program.

Opportunities for the ACEC Community

Contracting Opportunities

- Track Maintenance.
- Workforce to Support Operations & Capital.
- QCO Technical Support.

Changes in Programs & Procedures

- Safety Engineering & Certification.
- Contractor Oversight.
- Rules, Policies & Procedures.
- Quality Management.
- Asset Management.
- CIP Priorities.



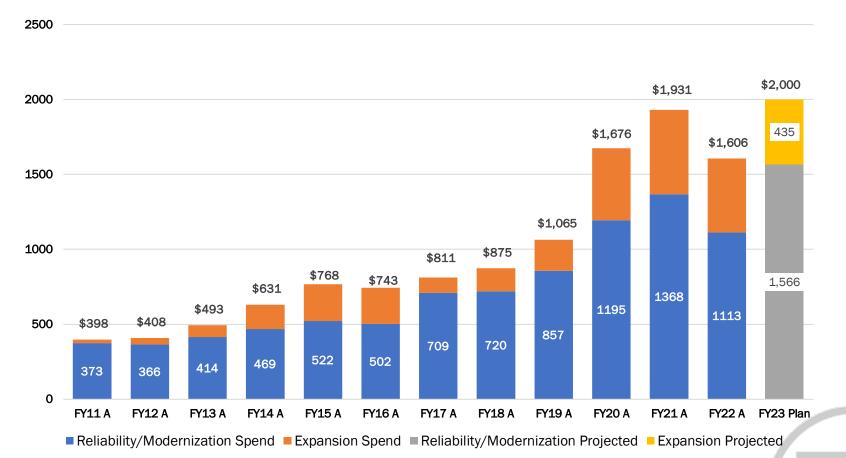
We are in this together

The **safety** of MBTA customers, employees, and contractors is priority #1. A great deal of our Safety work requires aligning with our contractors. Regular communication is key to producing a safe, positive working environment that bolsters job satisfaction, retention and productivity.

Recent Selections, Procurements in Process, Upcoming Procurements

MBTA Capital Investment by Fiscal Year

- For FY2022: The capital program delivered spend of \$1.6B, \$400M lower than the \$2.0B target.
- The spending goal for FY2023 is \$2.0B, with \$1,566M in Reliability/ Modernization and \$435M in Expansion.



Recent Selections

Firm has been selected & contract process is underway

ASHMONT BRANCH TRACK RENEWAL 4 Years. Engaged in negotiations.

Design, bid phase, and construction phase services for track rehabilitation on the Ashmont Branch. The Scope of Service(s) may include but are not limited to: a rehabilitation of the existing track configuration, including the track design, special track work, civil, structural, traction power, communication, electrical, and environmental. **The HNTB Corporation**

<u>ARBORWAY BUS MAINTENANCE FACILITY</u> *5 Years. Negations complete – awaiting BOD Approval of Award.* Soliciting 15% through 100% Design Phase, Bid Phase and Construction Phase Services for the Arborway Bus Maintenance Facility. Design a single, fully enclosed building to store and maintain approximately 200 40- and 60-foot battery electric buses. **Michael Baker International**

BLUE HILL AVE TRANSIT CORRIDOR IMPROVEMENTS 4 Years. Engaged in negotiations. Design infrastructure improvements related to bus lanes and stations, bus stop accessibility, roadway and traffic signal engineering and general bus corridor improvements. WSP USA, Inc.

SAFETY ASSURANCE SERVICES 6 Months. Awarded – Pre-Audit in progress.

Supplement MBTA Safety with supporting staff to assure full conformance during the performance of construction work with all applicable Federal, State and local labor, occupational safety and health laws and regulations. Develop the Safety Assurance Plan for Capital Program Construction in-flight projects and monitor the adherence by the contractors and workers to their approved safety plans.

Alternative and Renewable Construction, LLC

Recent Selections

Firm has been selected & contract process is underway

<u>GEC for BUS INFRASTRUCTURE IMPROVEMENTS PROJECTS</u> 3 Years. Contract Executed.

Scope of Services includes but is not limited to designing infrastructure improvements related to Bus lanes, bus stop accessibility and general bus corridor improvements.

Howard Stein Hudson, McMahon Associates, Inc. and WSP USA, Inc.

MATTAPAN TRANSFORMATION 3-1/3 Years. Design and CPS Services Contract Executed.

Provide planning, design, engineering, and construction phase services for the modernization of the Mattapan corridor. This will include establishing state of good repair, reliability and accessibility of vehicles, rail systems, track and right of way, structures, stations, and facilities that support the MBTA Red Line – Mattapan High Speed Line.

The HNTB Corporation

OL SOUTHWEST CORRIDOR MODERNIZATION 6Years. Design and CPS Services. Contract Executed. Provide design and engineering services for the modernization of the Orange Line Southwest Corridor to establish state of good repair, and reliability of the transit rail systems.

The HNTB Corporation

RED-BLUE CONNECTOR 3 Years. Contract Executed.

Providing preliminary engineering and environmental review services. Project tasks may include preliminary engineering, an alternatives analysis and environmental review.

AECOM

Recent Selections

Firm has been selected & contract process is underway

<u>CPA SERVICES</u> 3 Years. Contract(s) Executed.

Perform Pre-Audit and Post-Audit evaluations of professional service contract, construction contracts and change order support.

Booth Management Consulting, Collen Donohue, CPA and Robert A. Passatempo, CPA

<u>GEC for OWNERS REPRESENTATIVE SERVICES – TRANSIT & FACILITIES</u> 5 Years. Contract(s) Executed. Owner's Representative Services for Transit Stations and Facilities Projects. Patrick Engineering Inc. and WSP USA Inc.

GEC for RELIABILITY & ENGINEERING 3 Years. Selections Complete. Initial negotiations underway. Asset Management Implementation Support to further implement industry best practices as well as continual support for asset registry maturity and condition assessments as per FTA's Transit Asset Management (TAM) Final Rule. HNTB Corporation, KPMG LLP, Network Rail Consulting, Inc., Patrick Engineering Inc., Reliance Engineers LLC, Turner & Townsend AMCL, Inc., and WSP USA Inc.

Procurements in Process

<u>GEC for OCE/E&M</u> 3 Years. Award package being prepared.

Provide "on call" tasks orders assigned under this GEC Contract that will provide the technical, strategic, engineering, design development.

AECOM Technical Services Inc., ARUP US, Inc., Hardesty & Hanover LLC, Hatch LTK, HDR Engineering Inc., HNTB Corp., Jacobs Engineering Group Inc., Mott MacDonald LLC, VHB Inc. and WSP USA Inc.

<u>GEC TECH SUPPORT SERVICES for SYSTEMWIDE ACCESSABILITY</u> *5 Years. Shortlist pkg being prepared* GEC services to provide advice, consultation and design to address routine and urgent accessibility related needs of the MBTA.

<u>GEC-INSPECTION & RATING of EARTH RETAINING STRUCTURES</u> 3 Years. Awarded. Contracts being prepared

In-depth routine inspection, special inspections, input of inspection data into the MBTA database system, submission of inspection reports with recommendations, ERS load rating calculations.

Collins Engineers, Inc. Reliance Engineers and WSP USA Inc.

<u>GEC-INSPECTION & RATING of BRIDGES SYSTEMWIDE</u> 5 Years. Award package being prepared.

Inspection and Load Rating of MBTA Bridges Systemwide, Commuter rail, transit (rail or roadway), pedestrian, highway bridges of various types including fixed span and movable span structures.

AECOM Technical Services, Inc., AI Engineers, Inc., Collins Engineers, Inc., Dewberry Engineers, Inc., Gill Engineering Associates, Inc., HDR, HNTB Corporation, Michael Baker International, Inc., STV Inc., TranSystems, VHB and WSP USA Inc.

<u>GEC-RAILROAD OPERATIONS SUPPORT</u> *3 Years. Advertised. SOQ DUE 4/19* Design and consulting services to address routine and urgent railroad operations need.

Procurements in Process

GAC for ARCHITECTURAL SERVICES *3 Years. RFP issued & Proposals due 4/4* architecture firms that are experienced in efficiently delivering small-scale facility design to provide General Architectural Consulting (GAC) Services to support the Office of the Chief Engineer.

<u>GEC SYSTEMWIDE BRIDGE DESIGN & STRUCTURE DESIGN – OCE</u> 5 Years. Awaiting Proposal Scoring Design, engineering, and construction phase services for MBTA-owned bridges and other structures systemwide.

<u>GEC SYSTEMWIDE URGENT STRUCTURE DESIGN-OCE</u> *3 Years. Awaiting SOQ Scoring* Urgent inspection and design services for MBTA infrastructure systemwide.

<u>GEC ENVIRONMENTAL CLIMATE CHANGE RESILIENCY</u> *3 Years. Advertised. SOQs due 4/18/23* Multidiscipline engineering services (i.e. mechanical, electrical, energy, civil, etc.) to design climate change resiliency measures for physical infrastructure.

<u>GEC INSPECTION & RATING of SYSTEMWIDE CULVERTS</u> *4 Years. Advertised. SOQs due 4/17/23* Provide in-depth inspection of in-service culverts to ensure that all structures meet required safety standards and are in a state of good repair.

Upcoming Procurements (pg. 1 of 2)

Project details will be established upon receipt of the advertisement packages for each procurement.

• GL VEHICLE MAINTENANCE FACILITY

- ▶ PM preparing advertisement package.
- ► Upgrade car house facilities at the Green Line Extension (GLX) Vehicle Maintenance Facility and the Riverside Vehicle Maintenance Facility, and to build and operate a new Vehicle Testing Facility at GLX.

• GL CENTRAL TUNNEL

▶ PM preparing for advertisement.

► Engineering, Architectural, and Design Consulting Services 30%- 100%, Bid Phase and Construction Phase Services for the Green Line Central Tunnel Track, Power and Signal Transformation Project.

• RAILROAD OPERATIONS ROCHESTER FACILITIES GEC

► Engineering Services to support Railroad Operations' Mechanical and Engineering Divisions for the Rochester Facility.

Upcoming Procurements (pg. 2 of 2)

Project details will be established upon receipt of the advertisement packages for each procurement.

• RAILROAD OPERATIONS FERRY SUPPORT SERVICES GEC

► Transportation service and operations planning, new technologies, Commuter Boat service and all related planning, design and engineering services necessary to support the Railroad Operations and Commuter Boat Service, on an as-needed basis.

• RAILROAD OPERATION MECHANICAL GEC

► Support Railroad Operations' Mechanical, Transportation/Customer Service, and Engineering Divisions.

• BILLERICA MOW REPAIR AND STORAGE

► Design & Construction Phase Services for the new MOW Repair and Storage Facility.

• Environmental Management & Compliance GEC Services

• CAPITAL PROGRAMS GECS (BROOKS ACT & NON-BROOKS ACT)

Current Initiatives

Draft for Discussion & Policy Purposes Only



RAILROAD OPERATIONS DIRECTORATE



MBTA COMMUTER RAIL CONSTRUCTION SAFETY DIRECTIVE



As you are aware the attached Commuter Rail Safety Directive has been issued by MBTA Raihoad Operations and Commuter Rail Safety. This directive will impact all Capital Construction and Transit Oriented Development projects with work within or adjacent to the Commuter Rail Right-OPWay.

MBTA Commuter Rail Safety Directive

- Impacts all Capital Construction and Transit Oriented Development projects with work within or adjacent to the Commuter Rail Right-Of-Way.
- Contains requirements that are in addition to the requirements currently outlined in the MBTA Specification 01568- "Construction Safety."
- Serves as the work directive to respective contractors immediately.
- Contractors are required to comply with all requirements as it relates to Commuter Rail Safety by March 7, 2023.
- If there are cost and or time impacts associated with this Directive, then contractors need to submit a cost proposal in accordance with the MBTA Change Order Manual to the Authority within 30 days of the issuance of letter.

Recent Prompt Payment Training

- Under 49 CFR Part 26.29(a), MBTA is required to include a Prompt Payment clause in all federal contracts
- Under 49 CFR Part 26.37, MBTA must have appropriate mechanisms to ensure compliance with 49 CFR
 Part 26 requirements including Prompt Payment
 - Enforcement is expected since non-compliance with Prompt Payment is considered a <u>breach of contract</u>

- Questions re: Prompt Payment process – submit to promptpayment@mbta.com

- A Prompt Payment help center @ mbta.com/DBE
 - ► the current versions of the forms, \blacktriangleright instruction sheets, \triangleright Training video, \triangleright FAQs.
 - An email address to submit your forms will be provided by the MBTA project staff for your project.

.....

- Any recipient of Federal funding: Transit Agencies, State DOTs, Subrecipients, other federal grants.
- Prime contractors, Developers on Private Public Partnerships, Design-Builders, any awardee of the federally-funded project(s).
- Subcontractors, subconsultants, suppliers, fabricators, truckers, any firm associated with a federallyfunded contract at any tier of subcontracting. (e.g., 1st, 2nd, 3rd, 4th tier).

Responsible

Party

Dual MBTA / ACEC Initiatives



DBE outreach programs with ACEC's DBE Task Force planned May 5, 2023



This past year the MBTA met with the ACEC Task Force to discuss the DBE Program and GFEs, PS Scope and Compensation Matrix; Sworn Statements, Prompt Pay, Engineer's Estimates and MBTA Policy on Annual Salary Increases. We will continue conversations on these topics and others as they arise.



MBTA Chief of Capital Programs, Scott Bosworth will be attending an upcoming ACEC TALC meeting.

Thank you!

