



The Massachusetts Bay Transportation Authority

Corrective Action Plan (CAP)

FTA-TRA-22-007

BACKGROUND

Overview: The FTA issued Special Directive 22-4 that required the Massachusetts Bay Transportation Authority (MBTA) to address ongoing safety concerns at MBTA and interim findings uncovered during FTA's Safety Management Inspection (SMI) that was initiated in April 2022.

This Special Directive mandated that MBTA take nine required actions in three distinct categories related to maintenance of way (MOW). These required actions are to address deficiencies in personal protective equipment (PPE) and right of way (ROW) safety; to correct defective track conditions; and to address management practices that negatively impact track repair.

PURPOSE

This Corrective Action Plan has been developed to address **Special Directive 22-4 Category 3: Management Practices** and its Required Action **FTA-TRA-22-007**.

FTA Finding

Management Practices

- MBTA's MOW department is not providing prioritized and actionable information to Executive Leadership regarding the condition of MBTA's assets and infrastructure.

FTA Required Action

- **FTA-TRA-22-007:** MBTA must develop and implement a process and reporting procedure that accurately communicates the number, severity, and significance of MOW defects to Executive Leadership.

ANALYSIS AND RECOMMENDATIONS

Analysis

- MBTA MOW reports on key performance indicators that result in restricted operations such as speed restrictions, and out of service switch infrastructure.
- MBTA MOW does not provide prioritized and actionable information to Executive Leadership regarding the condition of infrastructure assets with leading indicators of potential operational restrictions.
- MOW actively collects all safety critical asset inspection, preventative maintenance, and corrective maintenance in the Enterprise Asset Management (EAM) system and will work with the Asset Management team to accelerate adoption of EAM work management processes and other track analytics to increase transparency of system needs.
- The Reliability Engineering team worked with MOW leadership to develop a system wide view of track conditions that will be used to aid with Capital Investment planning, and long-range maintenance planning.

Recommendations

- MBTA MOW department will develop and implement a data collection and reporting process that identifies leading indicators for potential maintenance needed to prevent operational restrictions due to infrastructure conditions. This work is in conjunction with Corrective Actions FTA-TRA-22-006.
- MBTA will maintain sufficient planning resources to manage the preventative and corrective maintenance backlog work orders to clearly communicate the number, severity, and significance of MOW defects to Executive Leadership. This work is in conjunction with Corrective Actions FTA-TRA-22-006.

ACTION PLAN



The Massachusetts Bay Transportation Authority

FTA-TRA-22-007

Corrective Action Plan (CAP)

Description: MBTA MOW department will develop a series of clear asset performance metrics and implement a process and reporting procedure that accurately communicates the number, severity, and significance of MOW defects to Executive Leadership.

PLAN STRUCTURE

#	Actionable Items	Description	Responsible Party ¹	Est Start ²	Est End ³
1	Develop leading KPIs	Establish an E&M Working Group to review existing known conditions, required actions, potential consequences of no action, and determine appropriate indicators of performance that will highlight potential maintenance needs	E&M: Cheever	9/1/22	10/15/22
2	Develop the process for data collection and transparency	The assigned resources will be tasked to develop a data collection and review process that will inform MOW infrastructure condition reporting.	OCE: Valdivia E&M: Chann	10/16/22	1/1/23
3	Create transparent reporting	Build reports and dashboards from the EAM system to produce asset performance reports.	OCE: Valdivia OCE: Molewyk E&M: Chann	1/2/23	4/1/23
4	Integrate Reporting into Maintenance Planning Process	Implement a business process where dashboards are regularly reviewed and used to inform maintenance planning.	MOW: Martin E&M: Chann	4/1/23	6/30/23
5	Formalize the process	Once developed and formalized, the procedure will be implemented across the Authority and verified by Quality Management.	OCE: Molewyk	6/30/23	8/30/23
6	Communicate to Executive Leadership	Reports and dashboards will be used to clearly communicates the number, severity, and significance of MOW defects to Executive Leadership. Interim reporting will be provided prior to formalization of process.	E&M: Cheever	6/31/23	ongoing
7	CAP Verification	MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been resolved, taking into account the scope and performance measures.	OCE: P. Hadley	Ongoing	

COMPLETION DOCUMENTATION

Performance Metrics

- **Expected Completion:** The MBTA will develop the reporting metrics and tools over the remainder of FY23.

Verification

- **Overview:** MBTA Executive Leadership will have additional MOW infrastructure asset condition metrics that will provide leading indications of needed investment and enhanced maintenance action.

¹ In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

² Est Start – Estimated Start Date

³ Est End Estimated Completion Date

**The Massachusetts Bay Transportation Authority**

FTA-TRA-22-007

Corrective Action Plan (CAP)**BUDGET/COST ESTIMATE**

Overview: E&M and OCE will require additional resources in the form of Operating Budget, Capital Budget, headcount, and IT equipment to facilitate this CAP. The costs associated with this corrective action plan are incorporated into the budget for FTA-TRA-22-006, with the exception of the consulting engineering/planning line below, which is a direct support activity for assisting with the scope of developing the leading indicator metrics and developing tools to collect and chart this information. The budget values below are estimates that will require further refinement as the work associated with this CAP is implemented. Estimates include 30% contingency.

Segment Code	Cost Estimate
Consulting engineering/planning resources	\$1,950,000
Total	\$1,950,000

CORRECTIVE ACTION PLAN COMMITMENT**Responsible Parties**

Department ⁴	Name	email	Signature
E&M	Joseph Cheever	[REDACTED]	 DocuSigned by: 46782C0148064E7...
OCC & Training	Aisheea Isidor	[REDACTED]	 DocuSigned by: 4341C87EF28A48A...
Office of Chief Engineer	Erik Stoothoff	[REDACTED]	 DocuSigned by: 4908873D86B47B...
Reliability Engineering	William Boyce	[REDACTED]	 DocuSigned by: 5B7CBC1AB0691CB...
Human Resources	Thomas Wayne	[REDACTED]	 DocuSigned by: 00923AF9E5BE462...
Budget	Mary Anne O'Hara	[REDACTED]	 DocuSigned by: 3F02AECAC6684B1...
Procurement	Jeffrey Cook	[REDACTED]	 DocuSigned by: BE7997594DED4D2...
Safety	Ronald Ester	[REDACTED]	

Executive Leadership of Responsible Parties

DocuSigned by:

3BE468B7125C441...

7/15/2022

Jeffrey D. Gonneville
MBTA Deputy General Manager

Date

⁴ Offices designated as supporting roles provide subject matter expertise to responsible parties during action development and are not directly responsible for delivery of actionable items listed above.



The Massachusetts Bay Transportation Authority

FTA-TRA-22-007

Corrective Action Plan (CAP)

Executive Leadership of Responsible Parties

DocuSigned by:

David Panagore

7/15/2022

1816C5AFC522457

David Panagore

MBTA Chief Administrative Officer

Date

DocuSigned by:

Ronald Ester

7/15/2022

38C25B66E297490...

Ronald Ester

MBTA Chief Safety Officer

Date

DocuSigned by:

Steve Poflak

7/15/2022

8BBCDDC4491D4D5...

Steve Poflak

MBTA General Manager

Date