



**Massachusetts Bay
Transportation Authority**

Capital Delivery | New Way of Doing Business

Sam Zhou, P.E.

Assistant General Manager and Chief Engineer

Engineering & Capital Division

September 24, 2025

Choose Transit: Full  Ahead

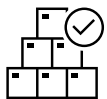
Engineering & Capital | How We're Doing Things Differently



FOCUS on delivering projects on time and on budget.



SPENDING taxpayer dollars wisely and efficiently.



Holding ourselves and our partners **ACCOUNTABLE**.



DRIVING creative solutions - Innovation.



REBUILDING in-house skill sets.

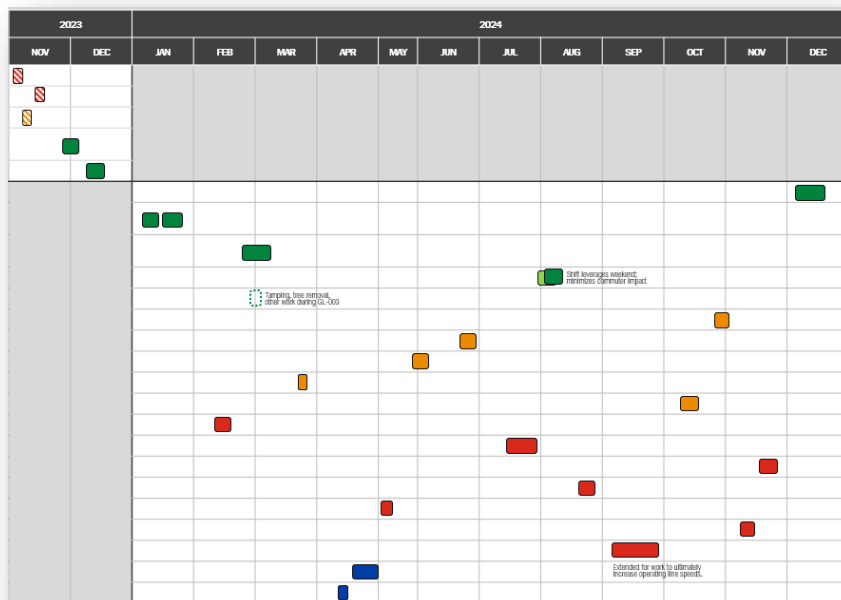
*...and always prioritizing **SAFETY**.*



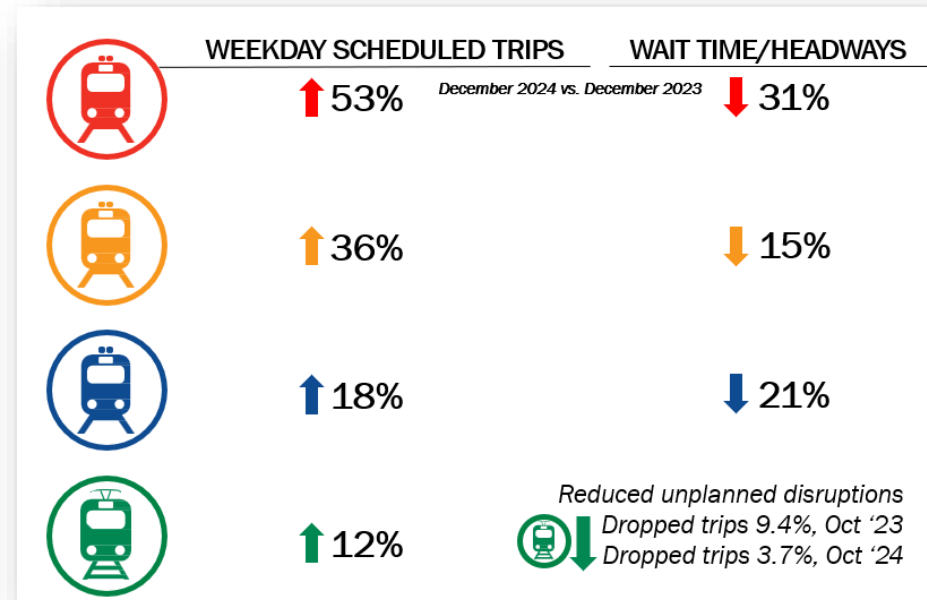
Track Improvement Program '23-'24 | Blueprint for the Future



SURPASSED
Program Metrics



PROMISED Timeline Achieved

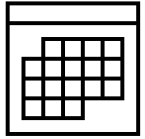


SERVICE IMPROVEMENTS Delivered

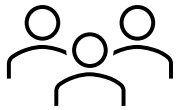
- ✓ Served as the CATALYST for change at the MBTA.
- ✓ Contributed to rebuilding PUBLIC TRUST.



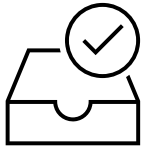
Capital Project Delivery | On time, On budget



EFFICIENT WORK SCHEDULING by closing system sections is most effective to **MAXIMIZE PRODUCTIVITY & RESOURCES.**



Capital, Engineering, Operations and Contractors **COLLABORATE & PARTNER** to ensure effective project execution.



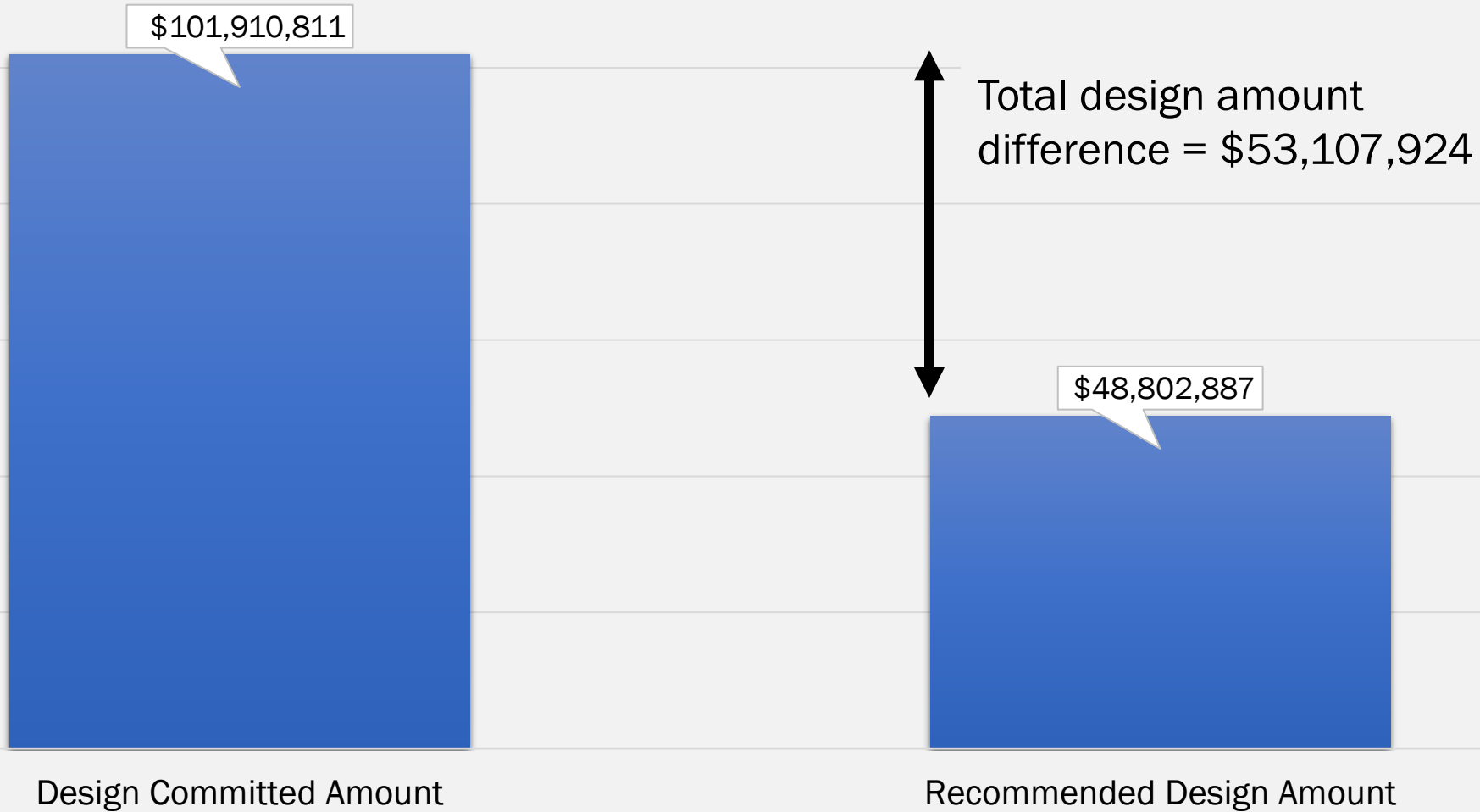
REAL-TIME ISSUE RESOLUTION: **key** decision-makers (boots on the ground) committed to making effective decisions.



STICK TO THE SCHEDULE and hold ourselves and our contractors **ACCOUNTABLE.**

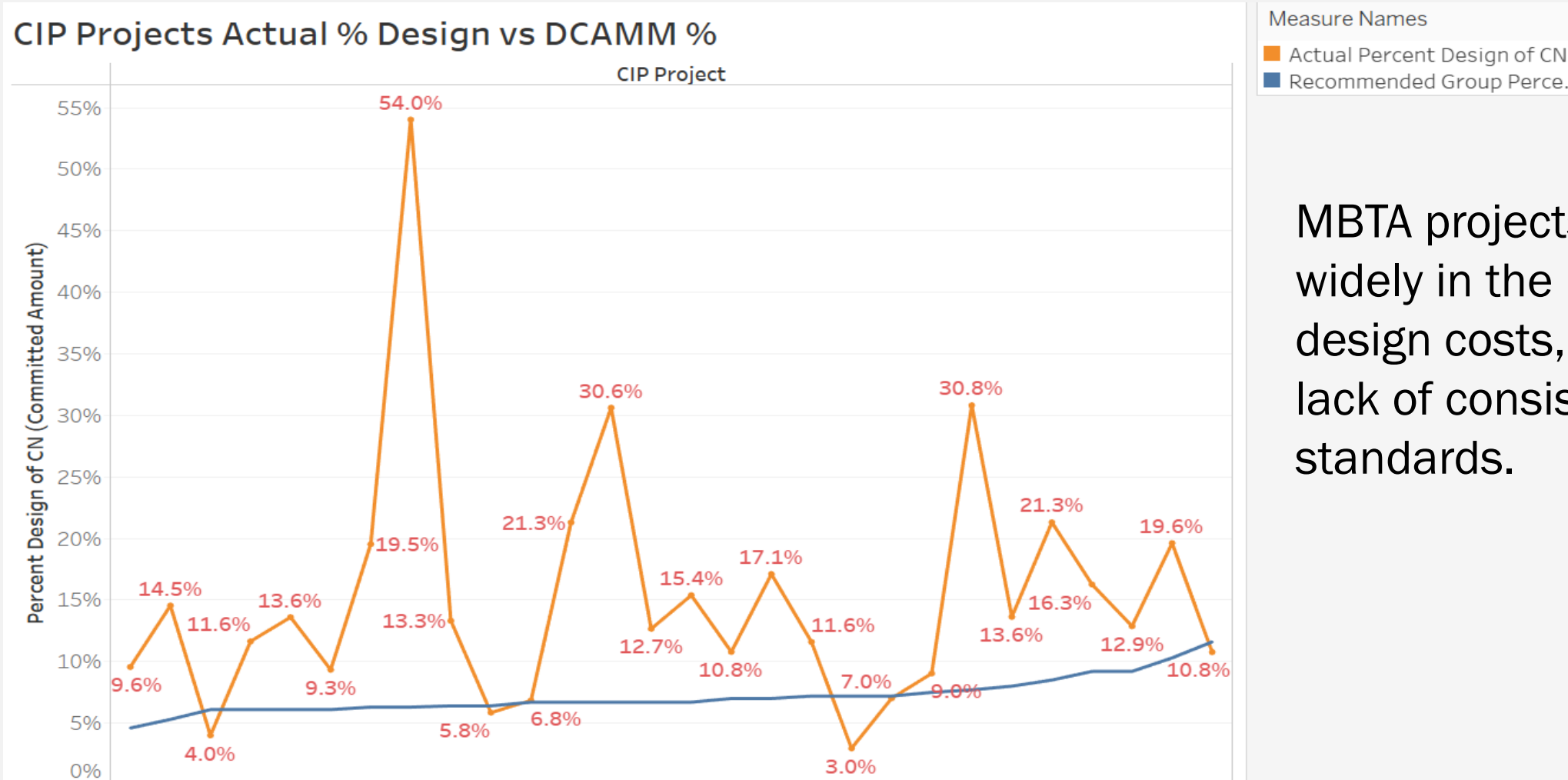


Capital Delivery Analysis | Agency Comparison pre-2023



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Facility Design Costs | Analysis & Results pre-2023



MBTA projects vary widely in the percentage design costs, indicating a lack of consistent standards.



Capital Delivery Considerations | Change of Mindset

Advanced projects to Design without committed funds for construction

Lack of clear scalability of milestones & deliverables

“*Cost Plus*” model combined with workforce reduction led to inefficiencies and increased costs

Lack of Building Code and accessibility requirements leads to multiple redesigns



Based on audit, paused several design projects that we knew were not going to result in construction

Develop new set of processes for project scalability

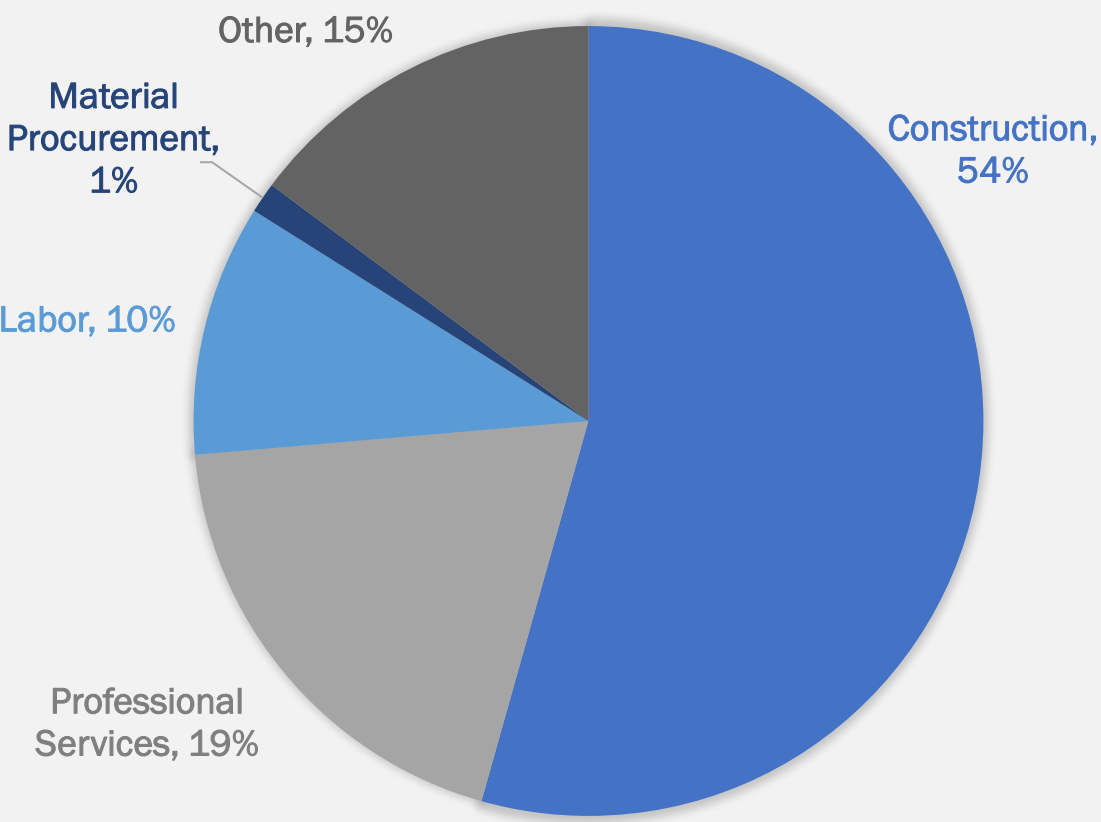
Develop Standards and **Standards sheets** to reduce repeated designs



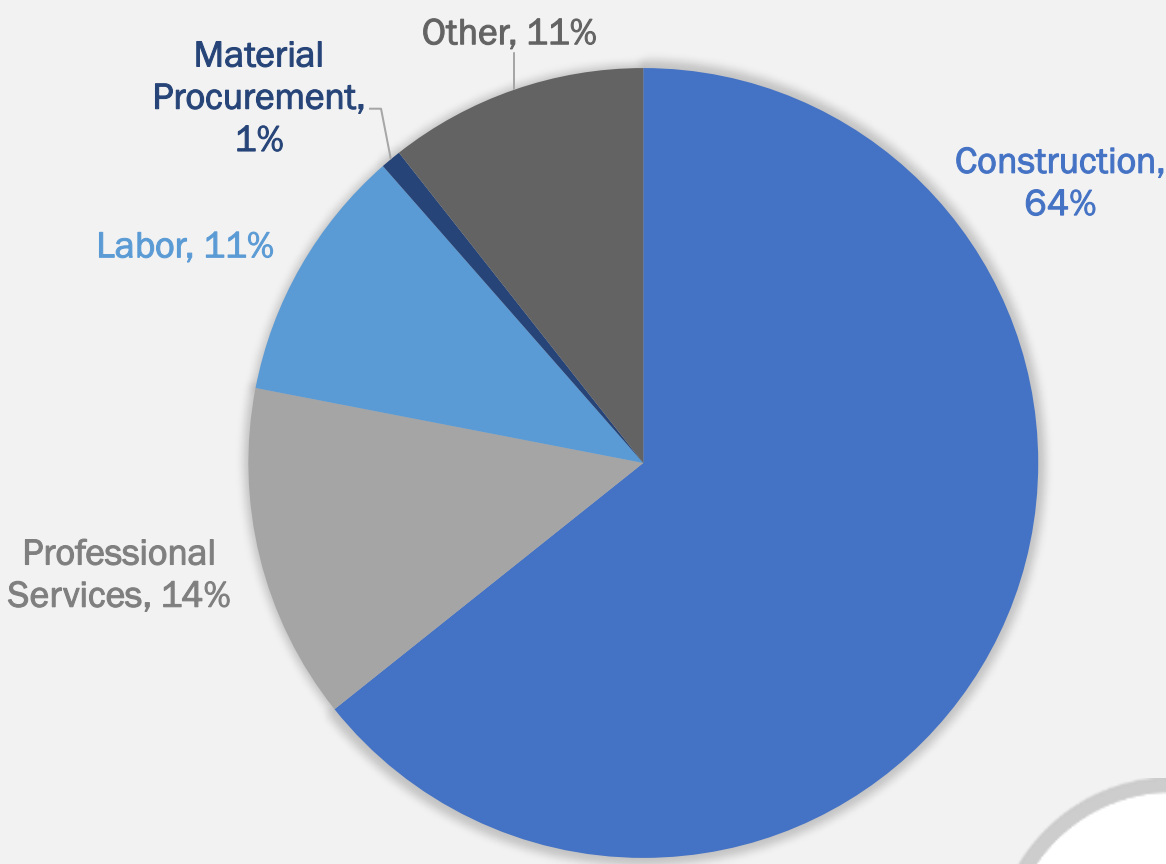
Capital Delivery | Achieving Efficiencies



FY24 CAPITAL SPEND BY EXPENSE CATEGORY



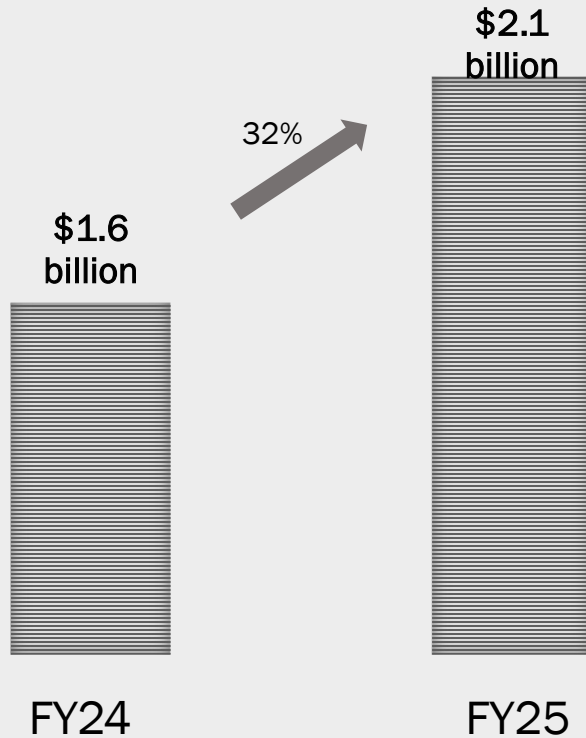
FY25 CAPITAL SPEND BY EXPENSE CATEGORY



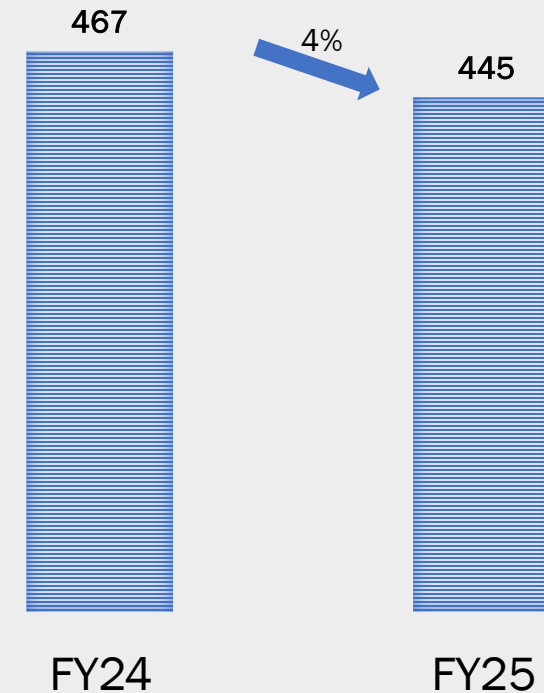
Efficient Capital Delivery | More Delivered, Fewer Employees



CAPITAL PROJECTS DELIVERED



ENGINEERING & CAPITAL DIVISION EMPLOYEES

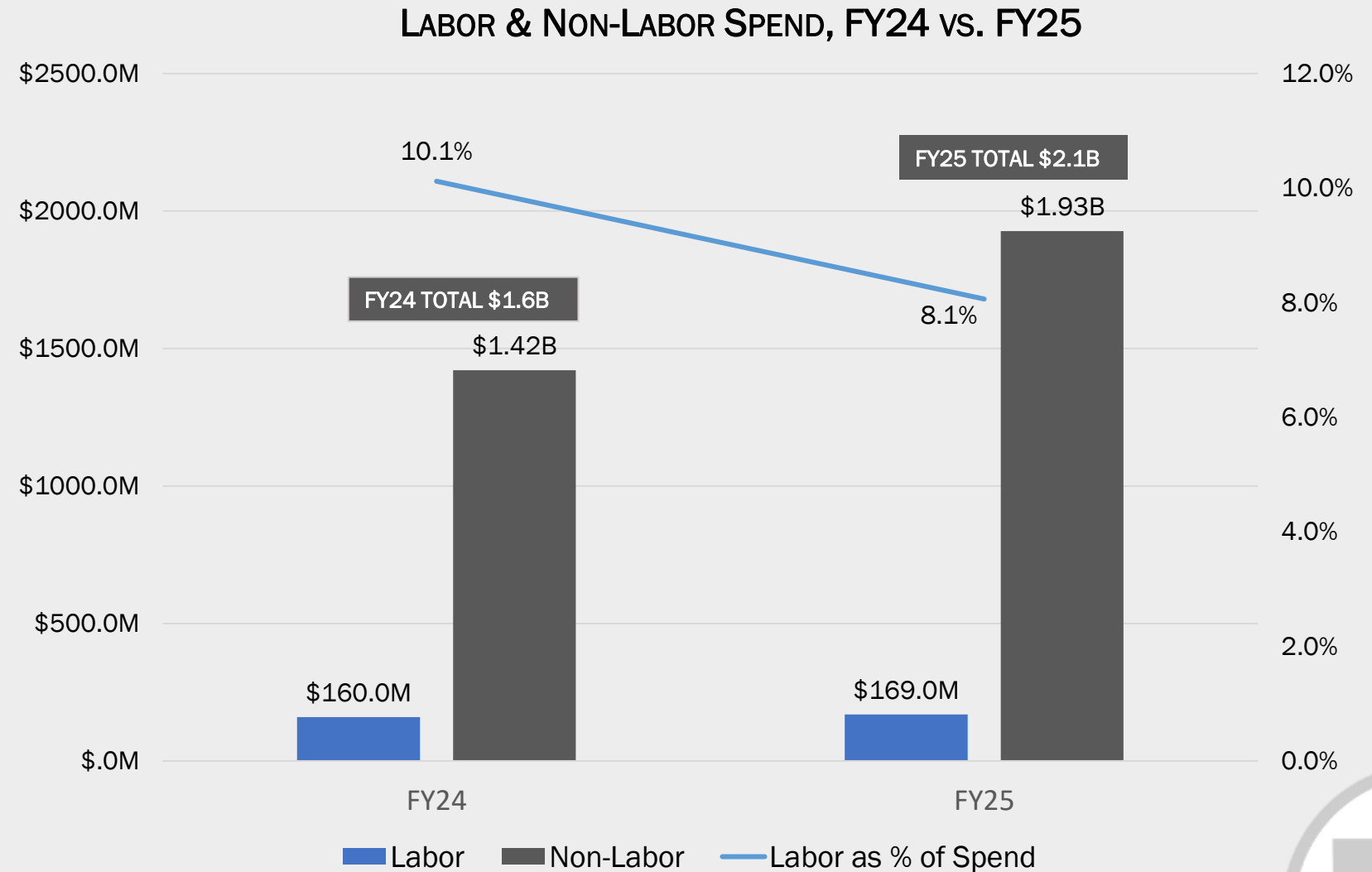


Delivering more projects with fewer employees

Efficient Capital Delivery | More delivered & holding costs



- Record-level investments delivered:
 - Accessibility,
 - Reliability.
 - Systemwide improvements.
- Labor expenses remained nearly flat, FY25 vs. FY24.



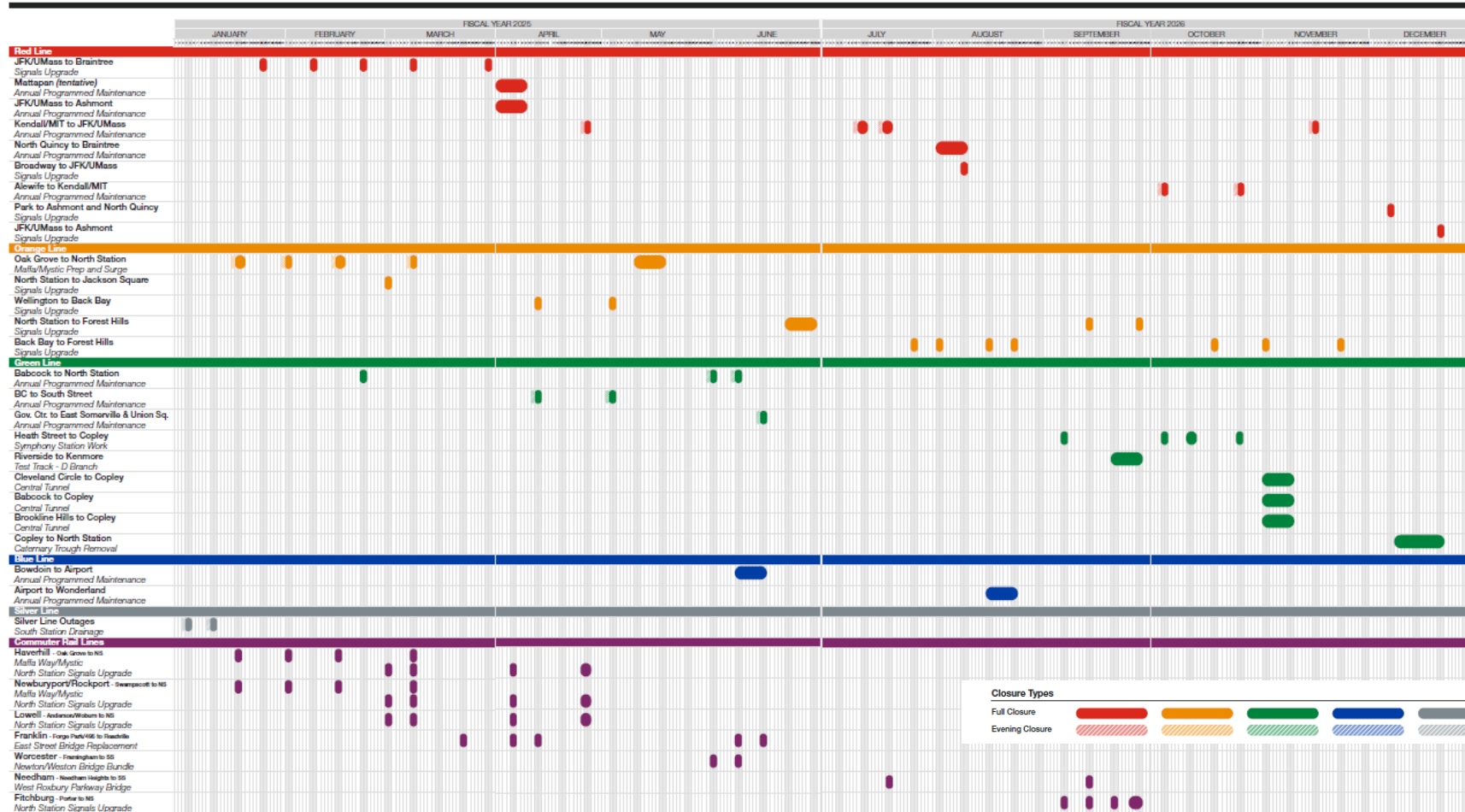
Efficient Capital Delivery | Long-term planning with simultaneous projects.



Construction Schedule Planning

Represents work impacting revenue service (no night orders);
For resource allocation planning and discussion

Updated: January 14, 2025



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Accelerated Bridge Construction | Minimizing Rider Impact

- Innovative planning, design.
- Increased quality and durability.
- Reduced social costs and environmental impacts.

South Elm St. Bridge Replacement



Optimal Capital Delivery Methods

Traditional vs Alternative Delivery Methods.

Past: MBTA relied heavily on
“Design-Bid-Build.”

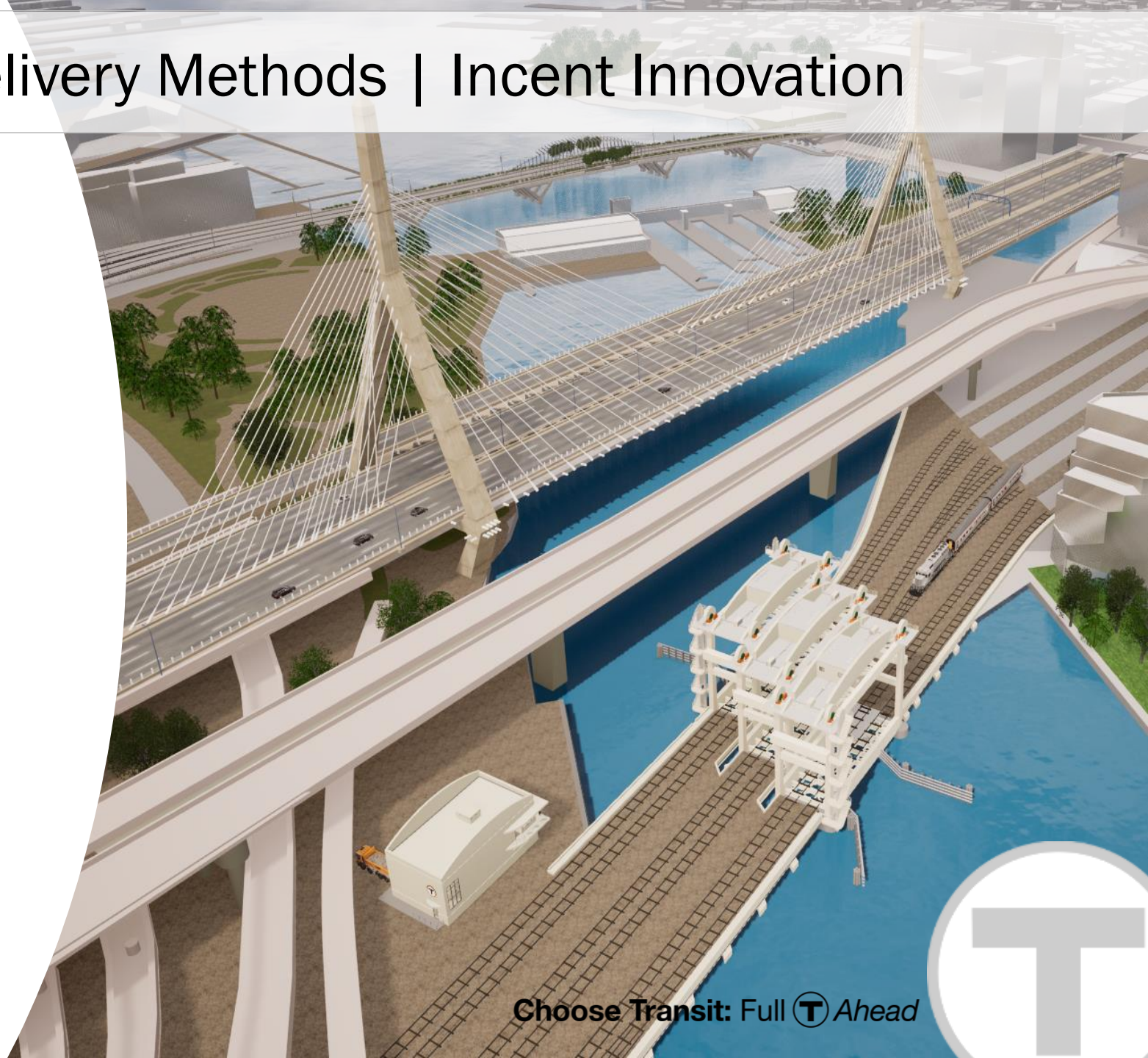
Now: We use alternative
delivery methods such
as “Design-Build” and
“CM at Risk,” selecting
the method that best
suits the project.



Optimal Capital Delivery Methods | Incent Innovation



- Initially planned as Design-Bid-Build; 75% designed.
- Industrywide feedback: select alternative delivery method for faster, less-expensive, more creative results.
- Design-Build delivery method was chosen.
- Now on fast track.

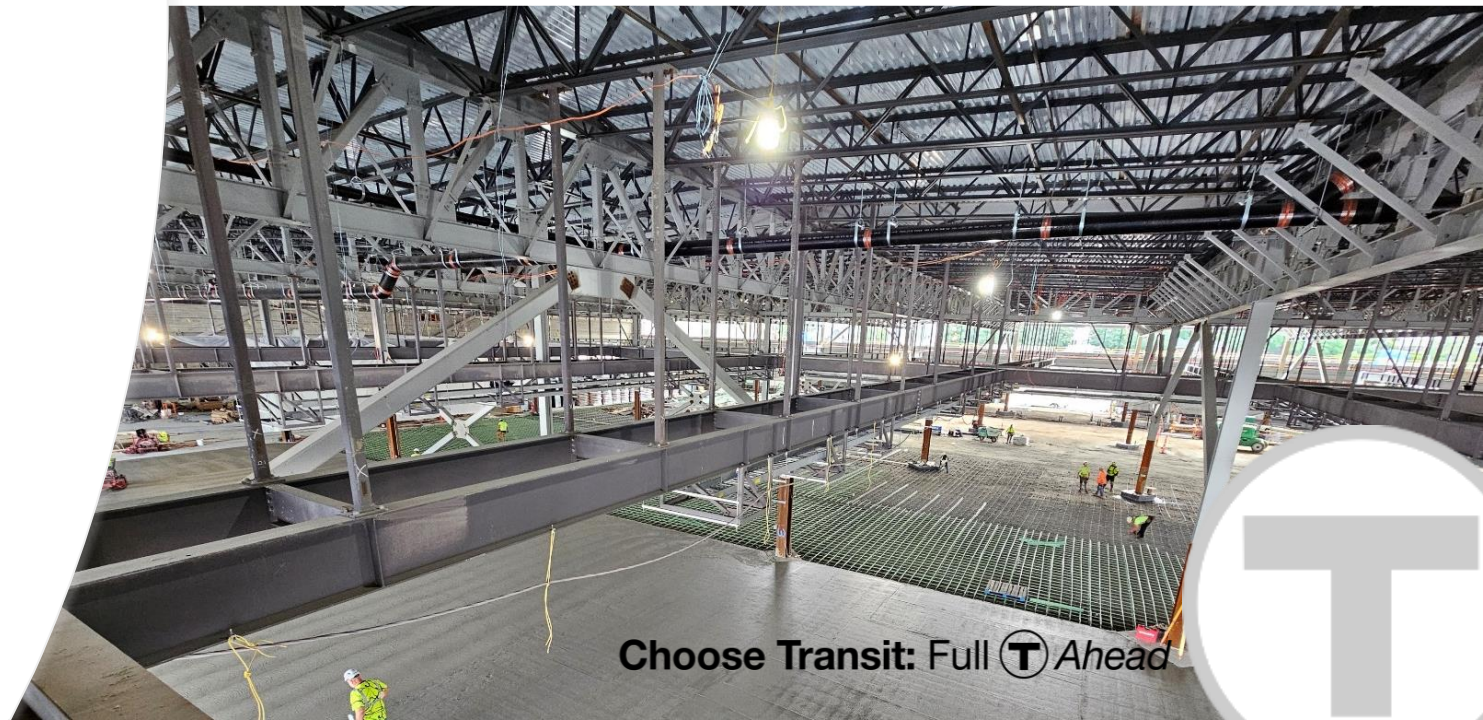


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Optimal Capital Delivery Methods | Incent Innovation

Quincy BEB Maintenance Facility

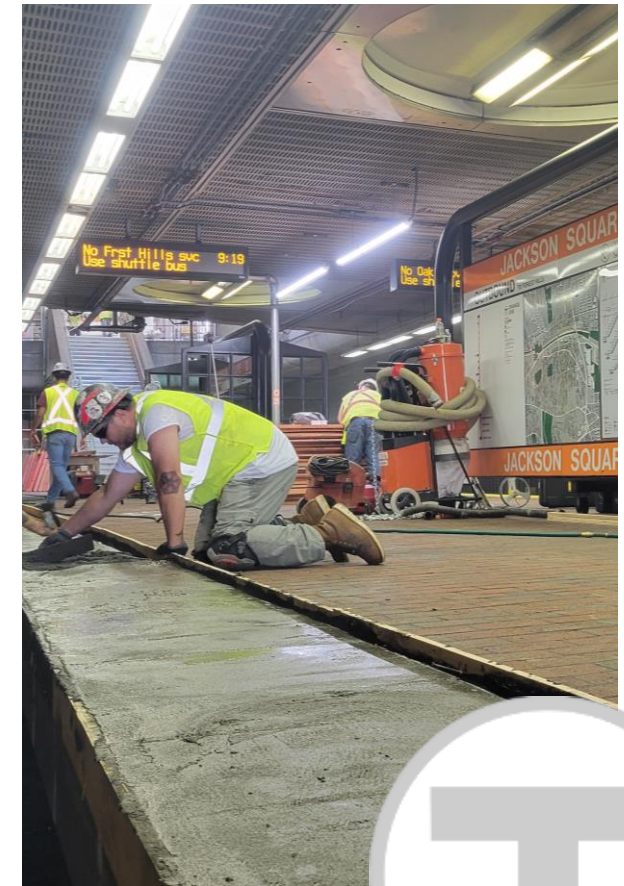
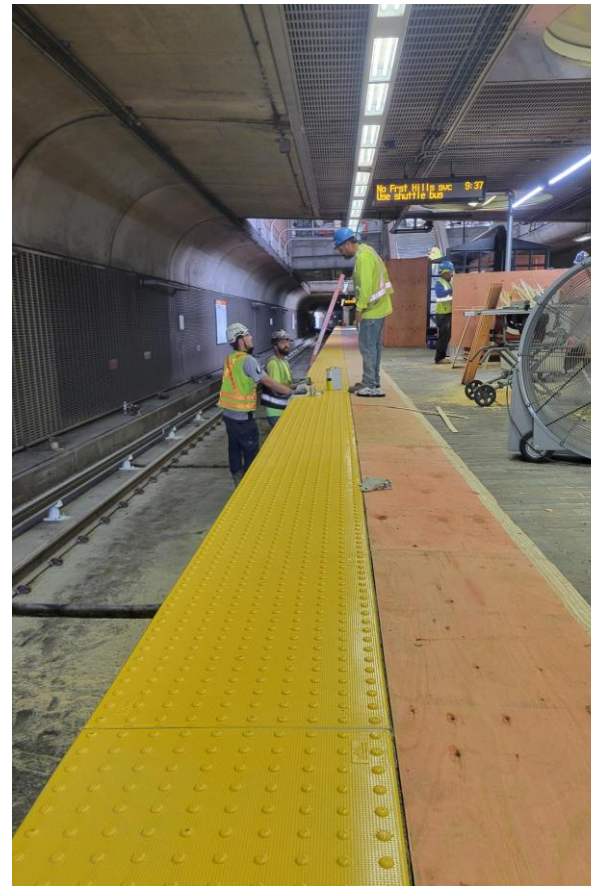
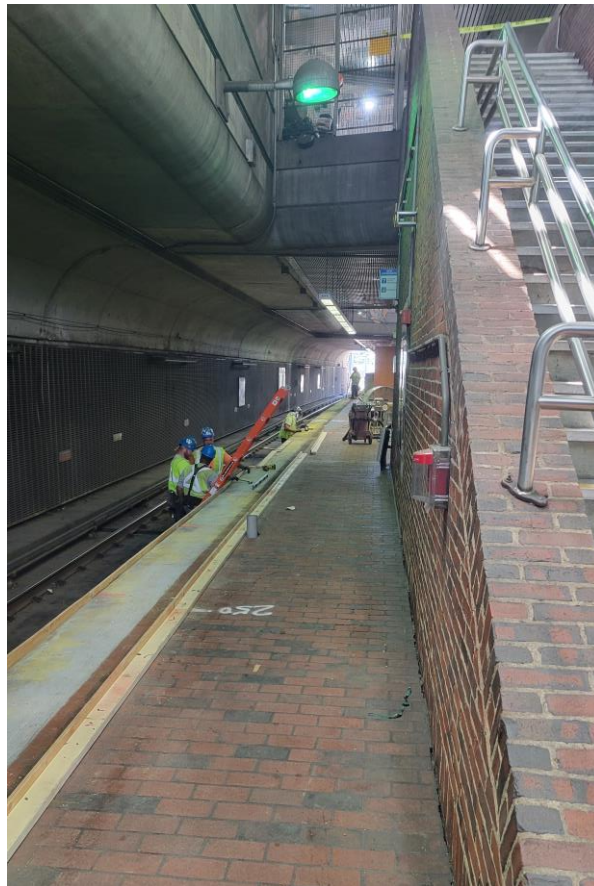
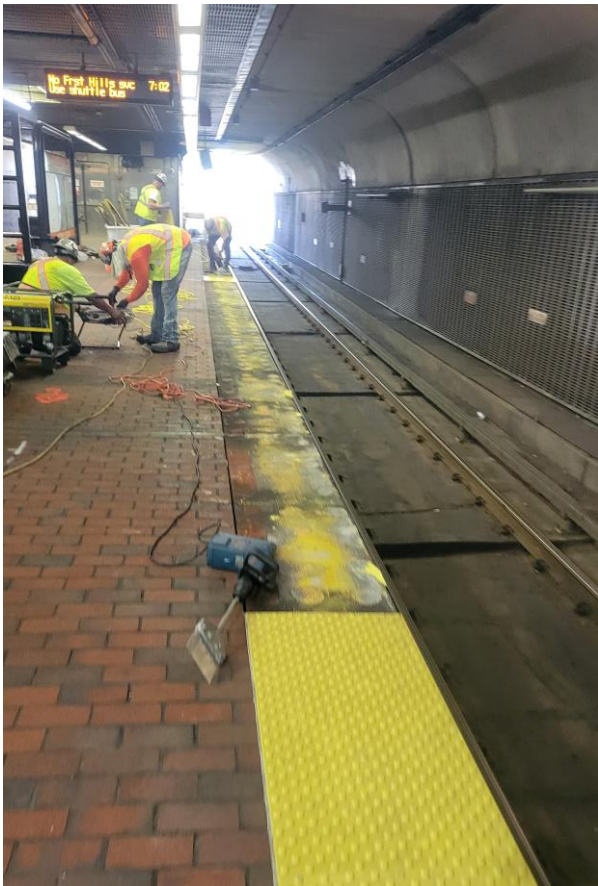
- Initially planned as Design-Bid-Build; 100% designed.
- Costs returned 30% higher than estimated.
- Pivoted to CM@R.
- Schedule clarity: Cost clarity.
- On track to deliver on budget and on schedule.



Innovation & Time Savings | Minimizing Rider Impact



Jackson Square (Raise platform for accessibility): Unique materials selection reduced original 3-month scheduled work to 1 weekend & 6 nights; and saves \$1 million in labor costs.





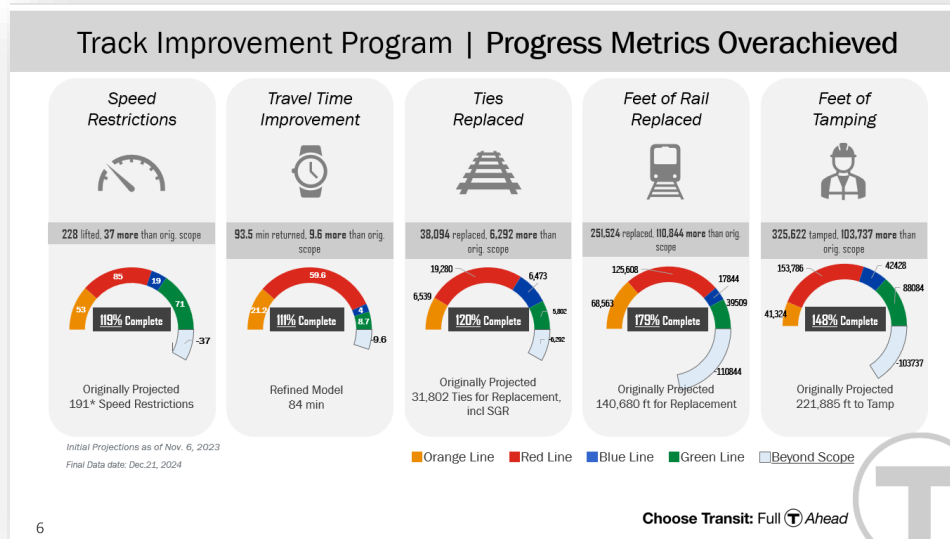
**Need for level-boarding platforms led to concrete panel auction & significant cost savings:
A cost of millions to fabricate becomes an orders-of-magnitude lower investment and
facilitates systemwide accessibility for Commuter Rail.**



Franklin, Mass.



MBTA Demonstrates Responsibility for Taxpayer Dollars

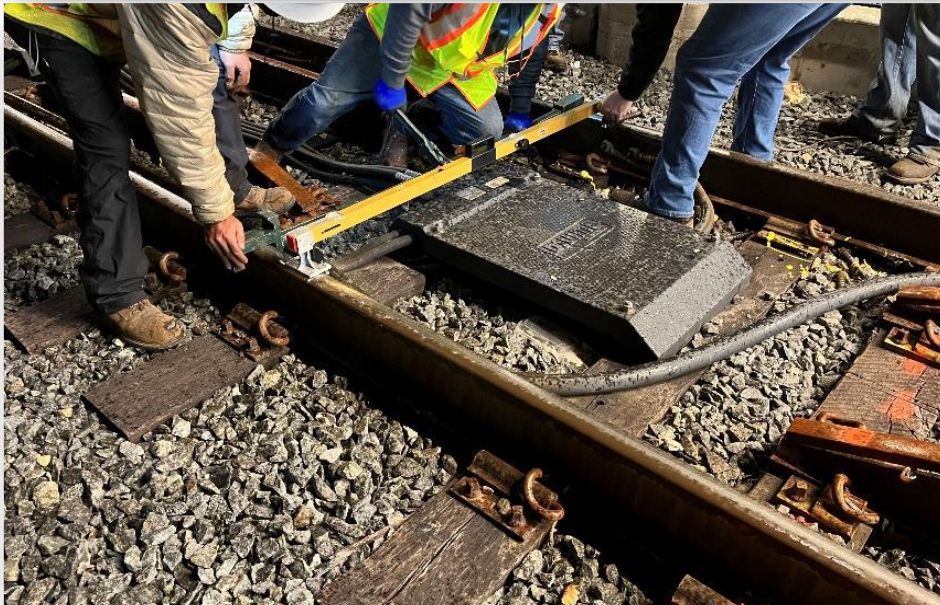


Track Improvement Program:

- Drew more contractors who want to work for the T.
- Increased pool of contractors
- Incentive & Liquidated Damage contractual terms, holding contractors accountable.

Green Line Extension (Narrow Gauge):

- Contractor, not the taxpayer, paid for the re-gauging.
- Holding contractors accountable.



MBTA Holds Ourselves & Partners Accountable



Memorandum Issued May 2024

TO: Engineering and Capital Division

SUBJECT: Consultant Performance Evaluation Reports (CPERs) and Design Errors and Omissions (E&O) Evaluation Procedures Requirements

DISTRIBUTION: MBTA Engineering and Capital Division Directors, Deputy Chiefs and Chiefs

- New process implemented.
- Evaluate twice yearly.
- Requires all project teams to look out for design errors and omissions.
- Assess Error and Omission impact.
- Design errors cause delays, re-design, time, money.
- Holding ourselves and consultants accountable.
- Recent projects: \$millions identified and recovered.

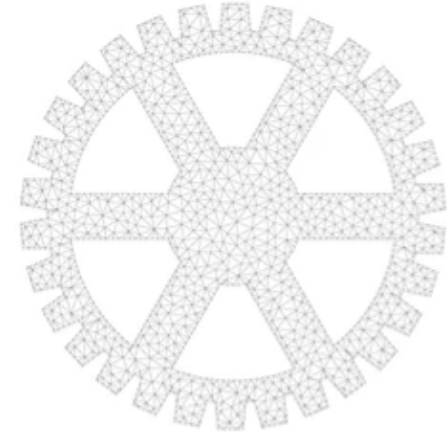


Rebuilding In-house Technical Capabilities

Hiring Licensed Professional Engineers, initially focusing on:

- Bridge Rating
- Bridge Inspection
- Structural Design

Creating a Career Development Program (CDP) tailored for individual job requirements



Thank you.
Questions?

