



**Massachusetts Bay
Transportation Authority**

Commuter Rail

Positive Train Control (PTC) Program

Fiscal and Management

Control Board Presentation

August 1, 2016

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Commuter Rail Positive Train Control Key Issues

- 1. Introduction to PTC**
- 2. Regulatory Schedule**
- 3. Program Budget**
- 4. Finance Plan**
- 5. Program Team**
- 6. Program Status**
- 7. PTC Program Service Impacts / Program Accelerators**
- 8. Procurement / Scope of Services for the Jacobs Team**
- 9. Requested Action**



1. Introduction to PTC

- ❑ The Rail Safety Improvement Act (RSIA) defines a PTC System as a system designed to prevent:
 - Train-To-Train Collisions
 - Over Speed Derailments
 - Incursions Into Established Work Zone Limits
 - Movement of Trains Through Track Switches That May Have Been Left In the Incorrect Position

- ❑ All PTC Systems are generally comprised of the same components:
 - An On-Board Apparatus for the Locomotive controlling each applicable train
 - Wayside devices, such as Wayside Interface Units (WIUs)
 - A centralized dispatch system (Back Office)
 - A communication system linking all components



2. Regulatory Schedule

- Legal deadline for PTC implementation extended to December 31, 2018.
- DOT/FRA can grant an additional 24 months (to December 31, 2020) to have PTC fully operational provided the MBTA meets certain criteria including the installation of PTC hardware by the end of 2018.
- MBTA has prepared a revised PTC Implementation Plan for submission for federal approval to address the hardware installation requirement by the end of 2018 with full implementation by December 31, 2020.
- FRA has the authority to assess penalties (up to \$105K/day) if new statutory deadlines are not met.



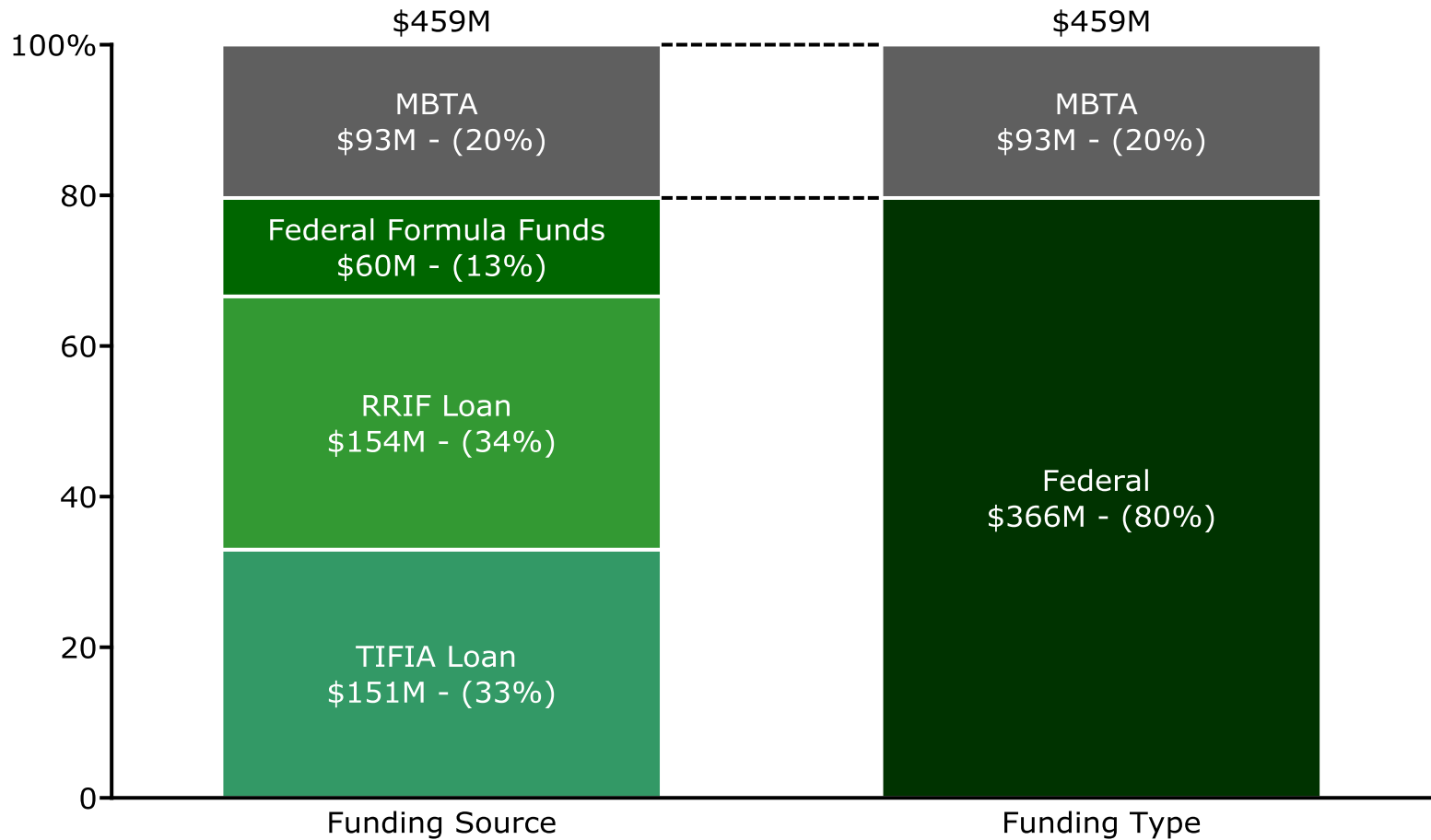
3. Program Budget – Consistent with Previous Presentation

Item	Value
Ansaldo Contract	\$338,457,134
Keolis Support	\$25,000,000
MBTA / Pan Am Site Prep	\$470,000
MBTA Program Staff Costs	\$4,600,000
MBTA Spectrum Procurement	\$240,000
MBTA Spectrum Legal Services	\$50,000
MBTA Program Consultant Services (Initial)	\$10,000,000
MBTA Program Consultant Services (Future)	\$15,000,000
Other	<u>\$3,500,000</u>
Total Program Budget	\$397,317,134
Contingency (13.5%) (*)	\$61,835,762
Total Program Cost	\$459,152,896

(*) Potential item that may impact contingency: buried fiber optic.



4. Finance Plan – Federal Funding will cover 80% of costs:





4. Finance Plan – Timeline of MBTA Communication for Federal Funding

Date	Type	Description	Contacted
7/30/2015	Phone Call	Scheduled Meeting for 9/3/2015	TIFIA
9/3/2015	Meetings	Initial Introductions	BATIC, RRIF, TIFIA, FRA
1/20/2016 – 2/04/2016	Brief Meet-up	Introductory meeting and multiple follow up calls	TIFIA
2/04/2016	Submission	Letter of Intent	TIFIA
3/09/2016	Letter	LOI Response Letter	TIFIA
5/9/2016	Phone Call	Restart Application Process	TIFIA
5/12/2016	Phone Call	4 TIFIA LOI Follow-up Questions	TIFIA
5/23/2016	Phone Call	TIFIA LOI Follow-up	TIFIA
6/13/2016	Submission	LOI Response Letter	TIFIA
6/16/2016	Phone Call	Discuss Finance Plan	TIFIA
6/24/2016	Phone Call	TIFIA / RRIF Follow-up	TIFIA
6/24/2016 – 7/27/2016	Phone Calls	TIFIA / RRIF Follow-up (~6 calls)	TIFIA

Next Steps

TIFIA LOI requires a “Plan of Finance” from RRIF to be finalized . The Project Worksheet for RRIF “Information Session” will be submitted over the next two weeks, allowing us to move forward with both agencies.

*Phone Calls made by MBTA, Citi, and/or Mintz Levin

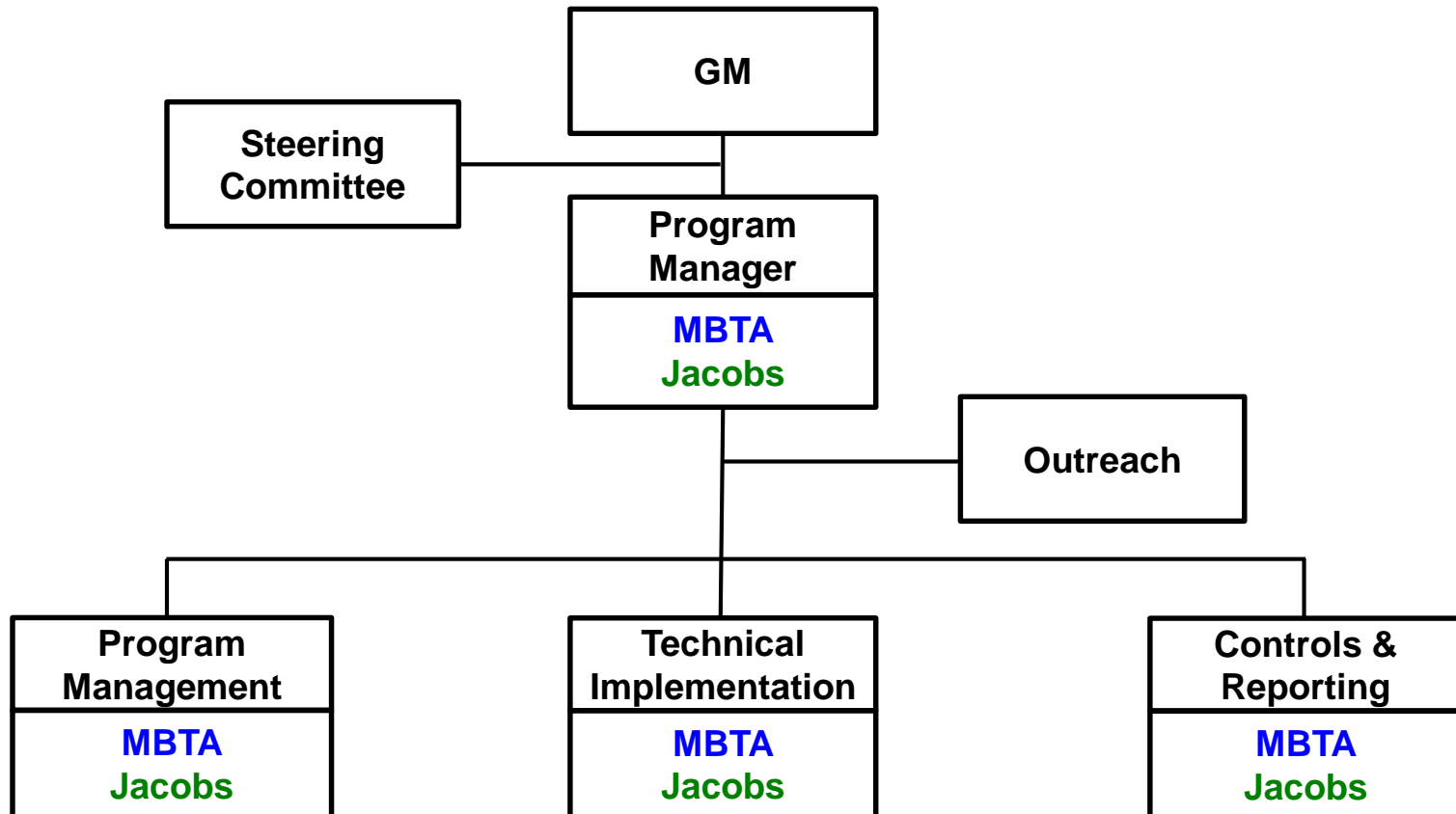


5. Program Team

<u>Responsible Party</u>	<i>Ansaldo / Keolis</i>
<u>Accountable Party</u>	<i>MBTA</i>
<u>Consulted</u>	<i>MBTA GM, FMCB, FRA</i>
<u>Informed Parties</u>	<i>Amtrak, CSX, Congressional Delegation, FCC, Media, Pan Am, plus all of the above</i>



5. Program Team – PTC Management Structure





6. Program Status

- ❑ Ansaldo's Component and System design work is progressing on schedule to the Preliminary Design Phase. Includes:
 - Wayside
 - Communications
 - Back Office Dispatching
 - On-Board PTC
 - System Integration
- ❑ Meetings taking place with various stakeholders to coordinate PTC Activities, including:
 - Amtrak | CSX | Pan Am | FCC | FRA
- ❑ Working with Keolis to coordinate needed resources to assist with PTC activities:
 - Flagging and Signal Maintenance Crews for access to railroad sites
 - Technical resources to assist with design review and project coordination
 - Operations resources to assist with determining operational impacts of implementation activities



7. PTC Program Service Impacts / Program Accelerators

PTC Installation Program

- Designed to minimize impacts on Commuter Operation while creating optimal work windows for PTC implementation activities.
- Work windows to be established during off-peak service hours (weekends, nights, between rush hours) to install PTC hardware.
- PTC evaluating installation windows that offer “most bang for the buck” opportunities for batch installation work.
- Weekend shutdowns provide significant opportunities for batch installation which:
 - Meet or accelerate project schedule,
 - Control project costs, and
 - Minimize variations/impacts on peak-hour commuter service delivery



8. Procurement / Scope of Services for the Jacobs Team

PTC Consultant Services Procurement:

- ❑ The contract was publicly advertised on September 25, 2014 with a request for Letters of Interest (LOI) to be submitted by October 30, 2014.
- ❑ Three (3) firms responded to the LOI; Jacobs/LTK, STV/HNTB and AECOM. The three teams submitted Statement of Qualifications (SOQs), were shortlisted, and issued RFP's on February 13, 2015.
- ❑ Proposals were due and received by the MBTA on March 26, 2015, with interviews held on April 9, 2015.
- ❑ On May 4, 2015, scoring was completed and letters were distributed, identifying Jacobs Engineering Group, Inc. as the selected team, after having been ranked highest among the competing firms based on the evaluation criteria.



8. Procurement / Scope of Services for the Jacobs Team

PTC Consultant Services Procurement:

- Jacobs was issued Limited Notice to Proceed (LNTP) on July 27, 2015 and extended to August 31, 2016.

PTC Consultant Services – Full Contract Scope of Services:

- Program Management Support and Oversight
- Administration
- Engineering Services – PTC Systems Design Review
- Quality Assurance
- Installation Oversight
- On-Site Testing and Commissioning Oversight
- FRA Certification Support
- System Start-Up Support



9. Requested Action

FMCB Vote Request:

- The FMCB is requested to authorize the MBTA to enter into contract with Jacobs Engineering Group, Inc. for an initial value of \$10,000,000 to provide program management and technical support to the MBTA for the PTC system on the commuter rail network for an initial two year period.

FMCB vote required to award contract to Jacobs Engineering Group, Inc.