

South Shore MBTA Red Line Investments and Projects



April 10, 2017



MBTA South Shore Red Line Investments

Initiative	Investment	Timeline
Winter Resiliency	\$111 M	Complete
New Red Line Trains	\$458 M	Nov. 2019 – June 2024
Traction Power Project	\$20 M	2017 – 2018
Signal System Upgrade	\$186 M	2017 – 2023
Braintree Garage	\$31 M	Sept. 2017 – Aug. 2019
Quincy Adams Garage	\$42 M	Sept. 2017 – Dec. 2020
Quincy Center Garage Demolition	\$25 M	July 2017 – Dec. 2018
Wollaston Station Improvements	\$38 M	July 2017 – June 2020
North Quincy Transit Oriented Development		Jan. 2018 – Dec. 2018 (Garage)
Mitigation		Ongoing

TOTAL SOUTH SHORE RED LINE INVESTMENTS - \$911 M

New Red Line Trains

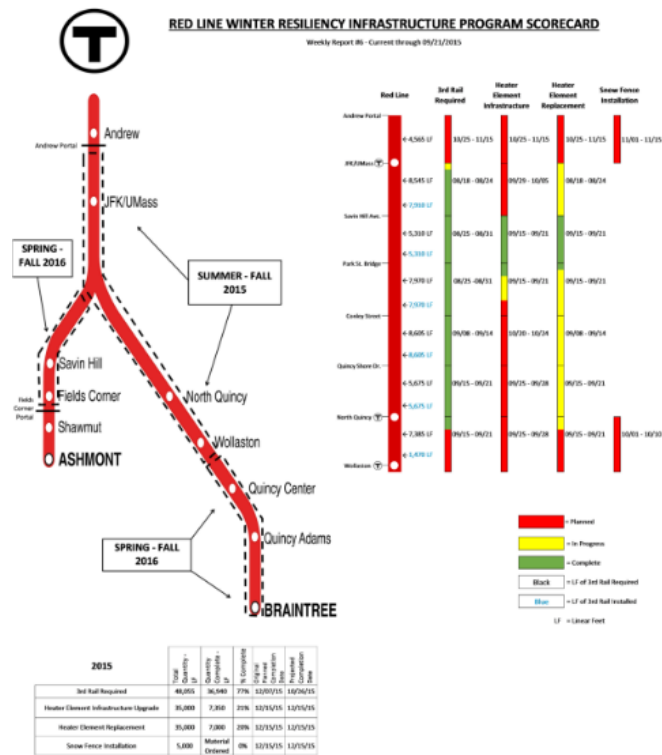
- In 2014, the Board approved a contract with CRRC to produce 132 Red Line No. 4 Cars (replacing the No. 1 and 2), leaving the Red Line No. 3 cars
- 86 No. 3 cars put into service in 1993-1994 (23-24 years old)
- In 2016, the FMCB approved the purchase for 120 more Red Line No. 4 cars from CRRC, standardizing the entire Red Line Fleet
- A total of 252 Red Line No. 4 cars purchased
- Total Investment \$458 M



Winter Resiliency

Completed 2016

- \$111 million to improve Infrastructure
- \$41 million to replace 23.5 miles of 3rd rail, associated insulators, and heater systems from Quincy Adams to Braintree Yard branch and Andrew Portal to Ashmont branch
- Spot replaced 4,000 ties; new portable 600V DC substations and emergency generators
- Replaced track at Quincy Center, Quincy Adams, and Braintree Station
- Install 5.8 miles of new signal trough between Wollaston and Braintree Stations



Sample Weekly Score Card

Traction Power Project

Systems that provide power to trains along the Braintree branch are being upgraded

- \$20 million program
- Increased reliability of service
- Completed by late 2018
- Additional power capacity to support future additional trains



Original Open Faced DC Switchgear



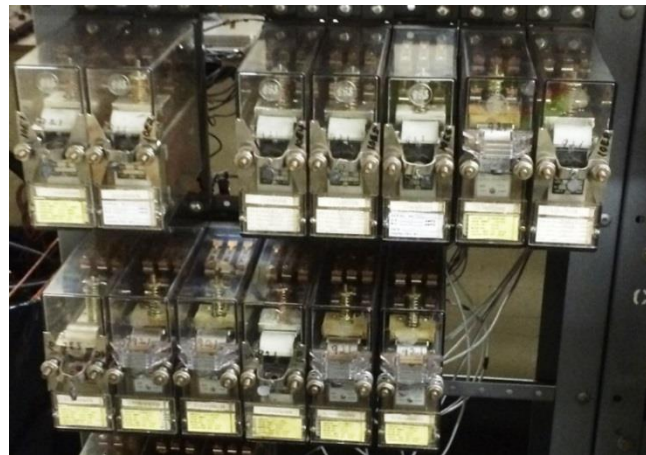
New Metal Enclosed DC Switchgear being Factory Tested



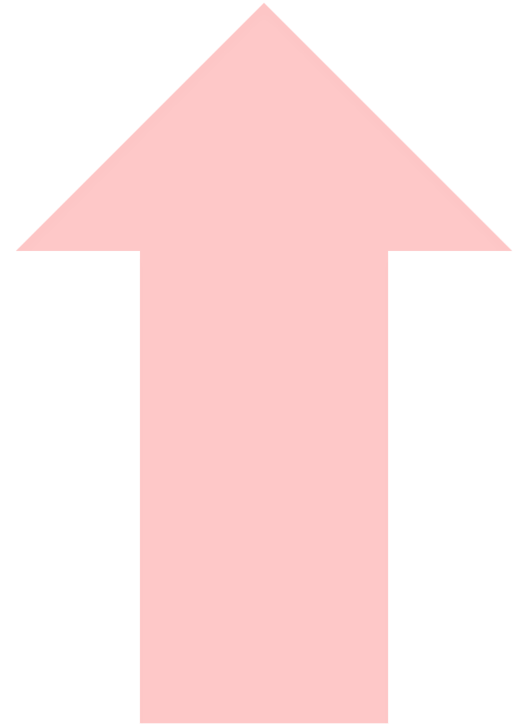
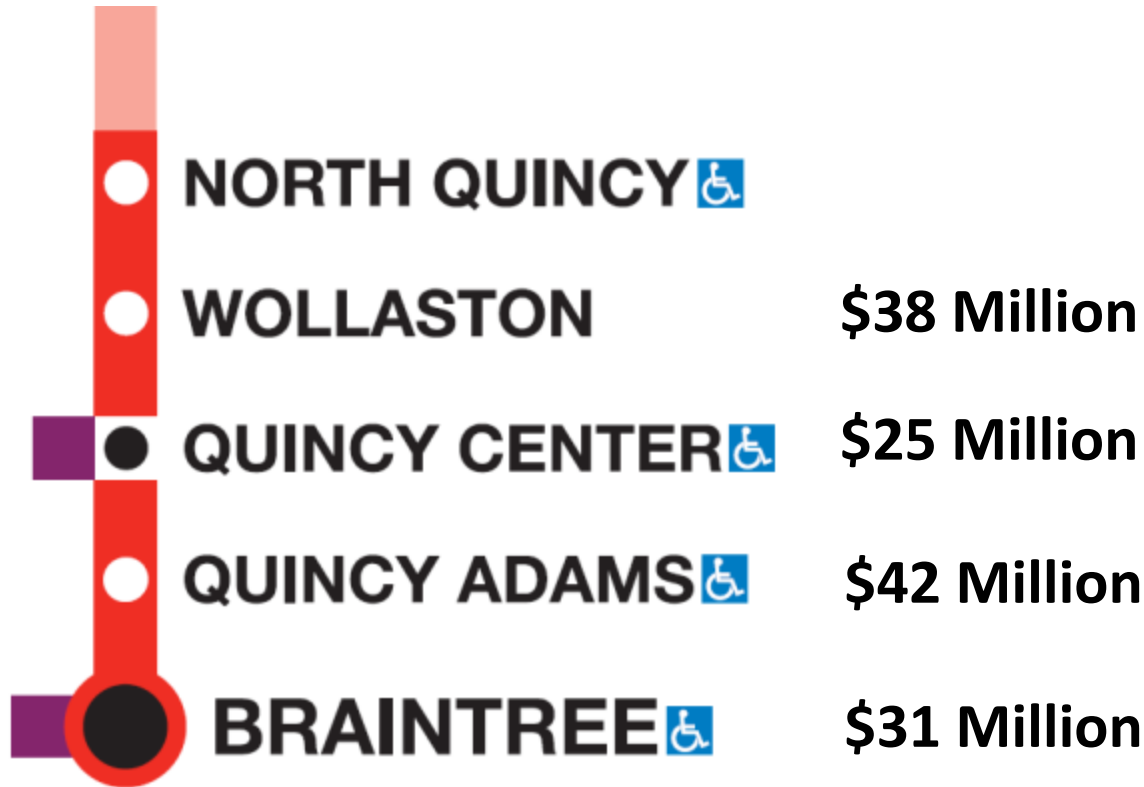
Installation of No.1 RECT TRANS at the at Wollaston Traction Power Substation ACCESS GATE

Red Line Signal System Upgrade

- \$186 million Program
- Replace existing system with new digital system
 - Faster system response time
 - Less maintenance cost
 - Substantial increase in reliability
- Trains will be able to run faster for longer; necessary to achieve 3-minute headway versus current 4 to 5-minute headway
- Nov. 2017 – June 2023



Transit Facility Projects



South Shore Garages - Braintree

- **Purpose:**
Rehabilitation/improvements to bring garage into state of good repair.
- **Scope:**
Structural repairs, system and accessibility upgrades
- **Notice to Proceed:**
Summer 2017
- **Construction Duration** – 23 months
(Sep 2017 – August 2019)
- **Construction Value** - \$31M



South Shore Garages - Quincy Adams



- **Purpose:**
Rehabilitation/improvements to bring garage into state of good repair.
- **Scope:**
Structural repairs, system and accessibility upgrades
- **Notice to Proceed:**
Summer 2017
- **Construction Duration** – 39 months
(Sept 2017 – December 2020)
- **Construction Value** - \$42M

Quincy Center Garage Demolition

- **Purpose:**

Advance Phase I of Quincy Center Station Air Rights Redevelopment

- **Scope:**

Remove garage above Level 2, replace existing elevator, add accessible entrance at Burgin Parkway

- **Notice to Proceed:**

Summer 2017

- **Construction Duration** – 18 months (July 2017 – December 2018)

- **Construction Value** - \$25M



Wollaston Station Improvements

- **Purpose:**
Fully Accessible Red Line, State of Good Repair, Modernization
- **Scope:**
Full station upgrade, elevators, egress, utilities upgrades, flooding mitigation
- **Notice to Proceed:**
Summer 2017
- **Construction Duration** – 35 months
(July 2017 – June 2020)
- **Construction Value** - \$38M



Wollaston Station Improvements



Wollaston Station Improvements

Construction Duration: 35 months
July 2017 – Summer 2020

Considerations:

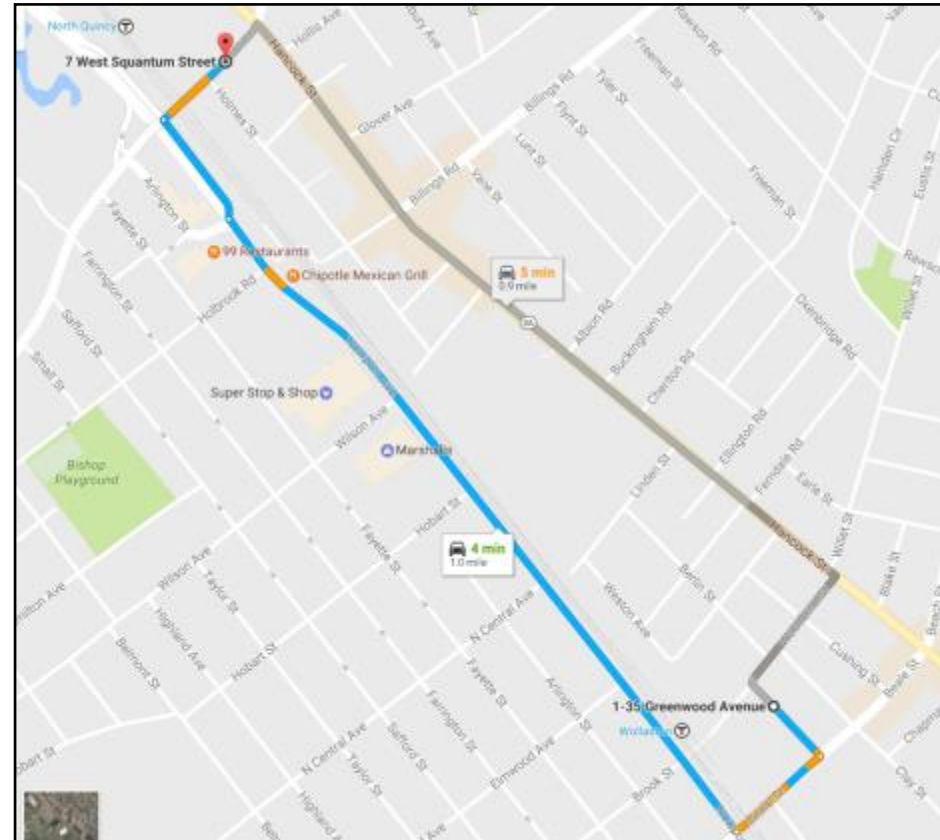
- Safety, customer experience, cost/schedule

20 Month Station Closure – Temporary Bus Service

- Dedicated bus service between Wollaston and North Quincy with 10 minute headways
- Dedicated Accessible Bus stops on Newport Avenue and Greenwood Avenue w/Shelter, Lighting and Snow Removal

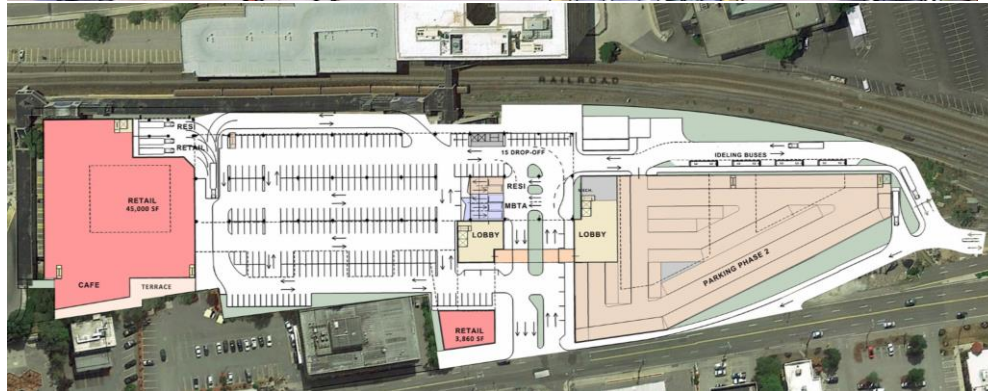
Contract Parameters:

- 115 (max) spaces unavailable during construction
- 20-month Station Closure – Temporary Bus Service
- Diversions & Early Access



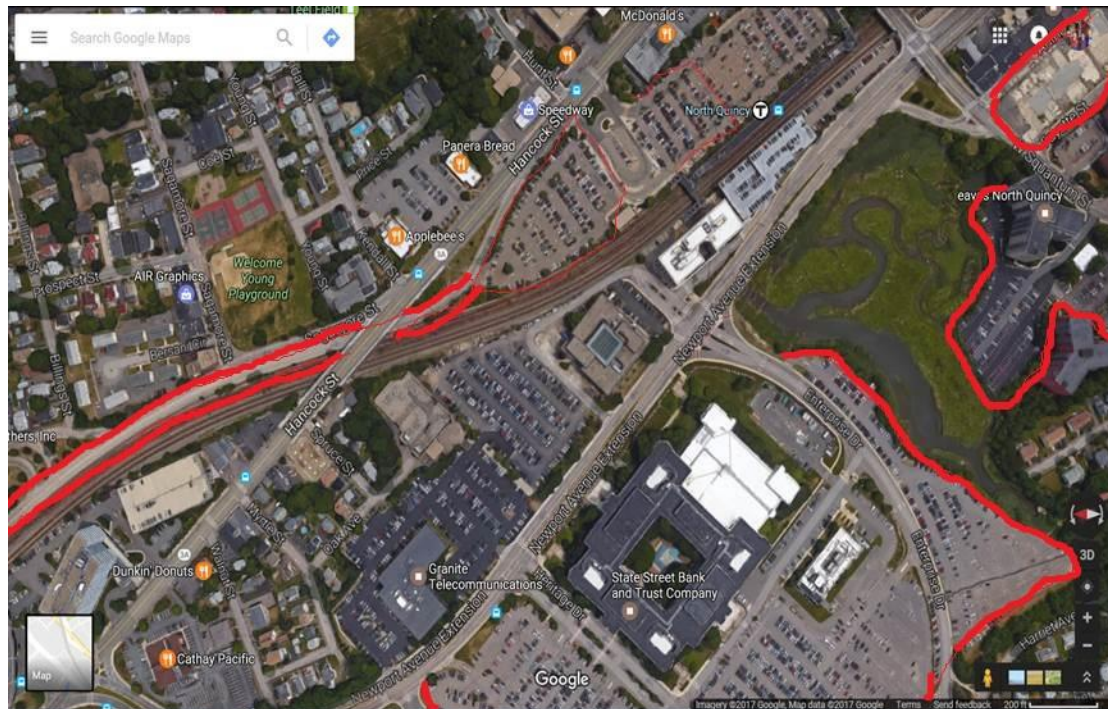
North Quincy Station Redevelopment

- Bozzuto Group / Atlantic Development
 - \$205M project
 - ±610 residential units
 - ±50,000 sq.ft. of retail
 - ±\$1.6M annual tax revenue
 - ±5.7M to Affordable Housing Trust Fund
- MBTA commuters will have access to 852 of the ±1600 parking spaces
- Garage construction starts Jan 2018, with completion Dec 2018
- From Jan 2018 to Dec 2018, ±350 spaces of 852 original spaces will remain open at all times



North Quincy Station Parking Mitigation

- On-Site Options
 - Re-configuration of North Lot
 - Valet Car Stacking
 - Developer construction phasing
 - MBTA Owned Cmdr. Shea Blvd.
- Off-Site
 - West Quantum Street Private Parcels
 - Enterprise/Heritage Drive Private Parcels
 - North Quincy H.S. (Summer use)
 - Squantum Point DCR Lot



Additional Mitigation

- \$2.1 M – Commander Shea Blvd. Extension



- Funding for Traffic Management Police Details at Neponset Circle

MBTA Quincy Red Line Projects Public Meeting Schedule

TUESDAY, APRIL 4 - WOLLASTON STATION RENOVATION

Tobin Towers Dining Hall – 2pm
80 Clay Street, Quincy

Central Middle School Auditorium – 6:30pm
875 Hancock Street, Quincy

THURSDAY, APRIL 6 - QUINCY CENTER GARAGE DEMOLITION

Old City Hall, Lower Level – 6:30pm
1305 Hancock Street, Quincy

TUESDAY, APRIL 11 - QUINCY ADAMS GARAGE RENOVATION

Lincoln Hancock School, Cafeteria – 6:30pm
300 Granite Street, Quincy

Addendum

New Red Line Trains

Improvements with No. 4 cars

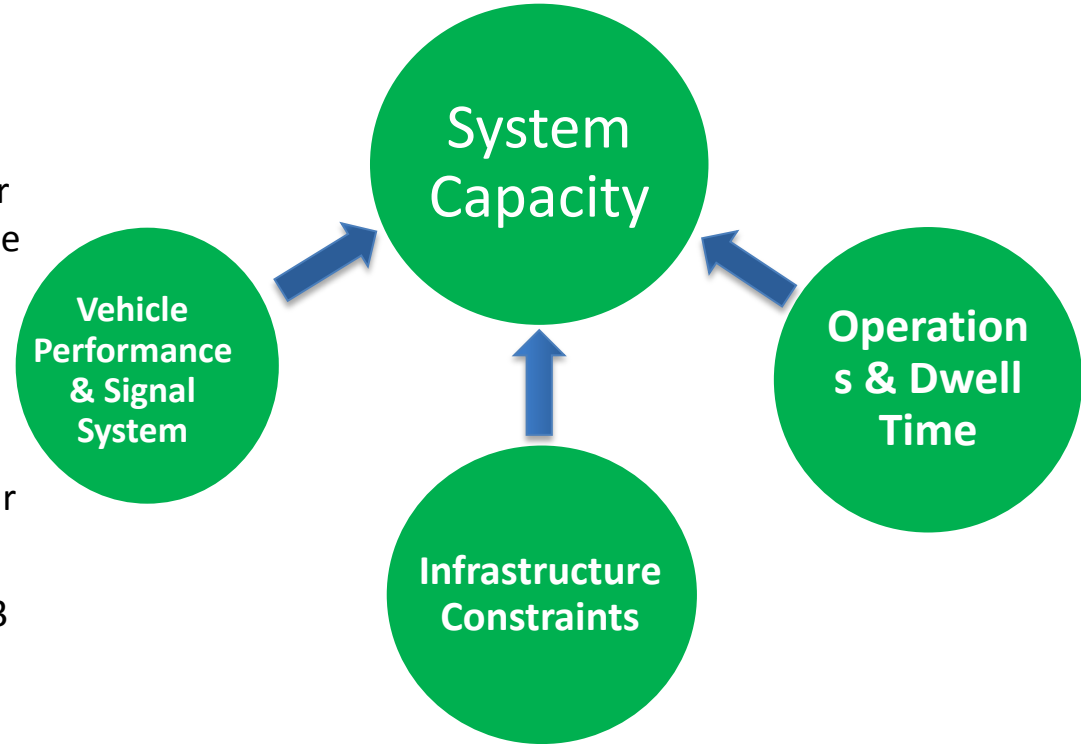
- Advanced propulsion system
- Improved trigger for vehicle signal controller
- Improved braking control technology
- Increased car capacity
- Wider doors
- More accessible areas
- Advanced passenger information and announcement systems such as LCD displays



New Red Line Trains

Benefits –

- With the new vehicles' performance, minor speed code changes and replacement of the No. 3 cars, Red Line could theoretically maximum capacity increase from 13-20 trains per hour.
- 50 % increase in customers carried per hour
- More trains more frequency resulting in a 3 minute headway
- Trains are designed to operate for 30 years



South Shore Garages - Braintree

Project Improvements

- Increased parking
- Improved traffic circulation
- New wayfinding signage
- Accessibility upgrades
- New garage lobby, redundant elevators, stairs
- New Parking Services Office
- Structural repairs
- Replace garage lighting and plumbing
- 130 temporary replacement parking spots - across Ivory Street



South Shore Garages - Quincy Adams



Project Improvements

- Increased parking capacity
- Improved traffic circulation
- New vehicle and pedestrian wayfinding signage
- Accessibility upgrades
- Atrium Improvements
- Renovated Parking Services Office
- Structural repairs
- Replacement of garage lighting and plumbing systems
- Centre Street Bridge Repairs

Quincy Center Bus Facility Rebuild

- Federal Grant \$4.2 million to City of Quincy
- Design to be coordinated with developer



